

# The Queensland Radio News

"Your Own Wireless Journal"

6d



Vol. II.

Wednesday, 1st September, 1926.

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## QUALITY & DISTINCTION

# AMPLION



The "Concert Dragon" Amplion  
Model A.R. 23  
Price : £ 9 / 10 / 0

THE quiet distinction and beauty of design that belongs to the "Concert Dragon" AMPLION, is only matched by the remarkable clarity and delightfully natural tone of its reproduction. With its high quality and perfection of performance and appearance, it is an outstanding triumph in loud speaker design.

Sole Distributors for Australasia

Amalgamated WORLD WIRELESS Wireless  
(Australasia) Ltd.

SYDNEY ~ MELBOURNE ~ BRISBANE ~ ADELAIDE ~ PERTH ~ WELLINGTON, N.Z.  
Sole Agents for Australasia ~ AMPLION [AUSTRALASIA] LTD., 56 MARGARET STREET, SYDNEY  
Managing Director ~ WILLIAM BLOGG

# The "SPLITDORF" 5 Valve Set

*-a Leader at*

# £27/10/0

ACCESSORIES EXTRA



MODEL R560

A Five Valve, inherently neutralised, tuned radio frequency receiver designed to combine simplicity and ease of operation with economy, both in first cost and maintenance. Special Splitdorf patented circuit ensures selectivity and gives remarkable volume and exceptional range with wonderful purity of tone.

Metal panel richly finished. Large tuning dials which make accurate tuning easy. Encased in attractive, hinged-top cabinet lacquer, finished in two-tone effect, dark Walnut and light natural grain. Five terminal

cable, permanently attached to rear, permits of making battery connections easily.

It is made by the manufacturers of the famous Electrical Equipment and Sparking Plugs, which bear its name.

## DEALERS!

We have secured the Sole Queensland Representation for this set, and strongly recommend it as the best low priced 5 Valve Set ever offered to the public. Get in touch with us now!

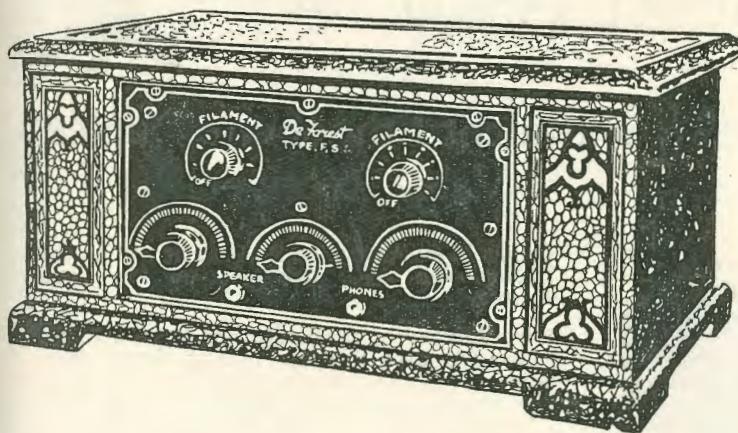
## HOME RADIO SERVICE Ltd.

SOLE QUEENSLAND DISTRIBUTORS

FIRST FLOOR, COURIER BUILDINGS, BRISBANE—Phone Cent. 6143

# New DE FOREST Balanced Circuit Marks New Era in Radio

THIS marvellous new circuit which was created and developed in the De Forest Laboratories writes a new chapter in radio history. It reproduces flawlessly the mellow, soft modulations of the human voice and captures the hitherto elusive overtones of the musical register. The De Forest Type F-5 Radiophones, which utilize this circuit, are five-tube instruments designed for use with a short aerial. They are unapproached for sensitiveness and selectivity, separating the stations positively, thus allowing you to pick the broadcast gems without interference and to bring them in with rich, full volume. Tuning is extremely simple, all dial settings being practically identical for any given station and unaffected by length of antenna used. There are no objectionable noises while tuning in.



De Forest F-5-AL Radiophone.

In this compact model the F-5 with the powerful De Forest Balanced Circuit is incorporated into a beautiful two tone leatherette cabinet. Though space is provided

for "A" and "B" batteries, an external loud speaker is required. This instrument, too, is a welcome addition to the most perfectly appointed home.

Price  
£45-0-0  
Complete with  
Loud Speaker, Batteries  
Valves and Aerial  
Equipment

**Send for our FREE Catalogue NOW**

Agents Wanted EVERYWHERE

Factory Representatives—

**INTERNATIONAL RADIO CO. LTD.**

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Buy  
**"BURNDEPT" British Wireless**  
*and you get the World's Latest and Best~*  
**The "ETHOVOX" Loud Speakers**

The Burndep "Ethovox" Loud Speakers have met with an unprecedented success, just because they bring into your home speech and song pure and true music with a richness of timbre hitherto unattained. There is nothing "tinny" in "Ethovox" reproduction, just a volume of un-

distorted and perfectly natural sound. The tones of the singer or of the speaker are reproduced just as they were uttered—in fact, so perfect is the tone that the artist might be present in your own room. Recognised by the trade as the World's Standard.

LARGE MODEL £5/15/0



**The Burndep Ethophone Duplex  
2-Valve Receiver**

Brings in all Australian Stations at will on the Phones—and 4QG, Brisbane, on the Loud Speaker.

Exceedingly easy to operate, and the usual high grade Burndep Product carrying a full guarantee.

Supplied to the Queensland Government.

Price Complete with Valves, Coils, Batteries, Phones, Aerial Wire. £12/10/-

"Ethovox" Junior Loud Speaker (if desired), £3/- extra.

**The Seven-Valve Super-Hetero-dyne Burndep Set**

Operating without any outside aerial or earth, which we advertised in last issue at £125, and which completely shuts out 4QG, right alongside it, and brings in all Australian Stations, including Farmer's (and America), has met with such a demand that we have sold right out, and we are now booking orders to arrive ex next shipment only, so order early if requiring.

**The Burndep Ethophone Triplex 3-Valve Receiver**

To bring in all Australian Stations,  
at Loud Speaker Strength

£20/- Complete  
Loud Speaker £3/- Extra

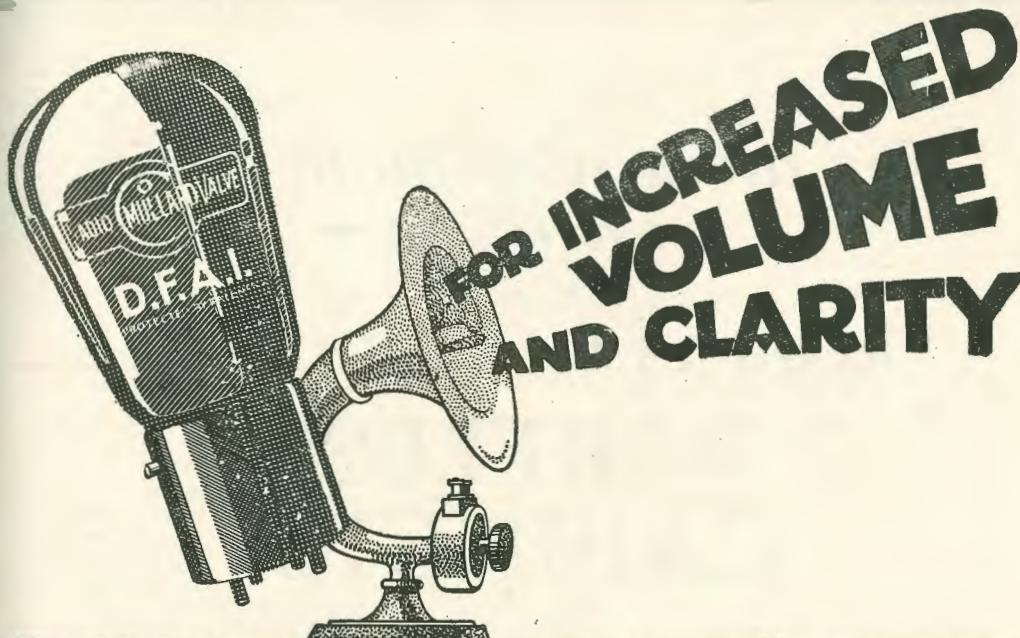
WRITE FOR OUR LATEST ILLUSTRATED LIST OF WIRELESS.

Queensland Distributors for  
Burndep Limited

**Queensland Pastoral Supplies Ltd.**  
Bowen Street (off Ann Street), Brisbane.

(Between Fire Brigade and Ambulance).

Phones 5410, 5411, 5412.



**D**ESIGNED for power amplification with large loud speakers.  
When inserted in last L.F. stage of receiver gives pure and abundant volume.

#### MULLARD D.F.A. POWER VALVES.

Type D.F.A. 0 (.35 amp.) for 4 volt accumulator . . . . .	13/6
Type D.F.A. 1 (.2 amp.) for 6 volt accumulator . . . . .	13/6
Type D.F.A. 3 (.06 amp.) for 4 dry cells or 6 volt accumulator. . . . .	17/6
Type D.F.A. 4 (.2 amp.) for resistance capacity circuits (6 volts). . . . .	13/6

HF Amplification.	LF Amplification.				Power Valves.				Detectors.		
	Fil.	Fil.	Fil.	Fil.	Type	Volts	C'rent	Price			
Type	Volts	C'rent	Price	Type	Volts	C'rent	Price	Type	Volts	C'rent	Price
HF	3.8	0.6	7/-	HF	3.8	0.6	7/-	D.F.A. 1	5.0	0.35	13/6
D.06	3.0	0.06	13/6	D.06	3.0	0.06	13/6	D.F.A. 3	6.0	0.06	17/6
D.3	1.8	0.3	13/6	D.3	1.8	0.3	13/6	P.M. 4	3.7	0.1	13/6
D.F.A. 4	5.0	0.25	13/6	D.F.A. 1	5.0	0.35	13/6	D.F.A. 0	3.5	0.35	13/6
PM.3 to 4	6.0	0.1	13/6	D.F.A. 3	6.0	0.06	17/6	D.F.A. 4	5.0	0.25	13/6

When valve is followed by an Intervalve Transformer or telephones, use an LF Amplifier or Power Valve. When valve is followed by a Resistance Capacity Intervalve system, use an HF Amplifying Valve.

All Mullard Valves are manufactured at Mullard Works, London, England.  
OBtainable from every radio dealer in Australia.

# Mullard

**THE · MASTER · VALVE**

*For those who build their  
own Sets—*

## ROBERTS' EXHIBITION WIRELESS CABINETS

*As supplied to leading Australasian Dealers*

Scientifically constructed to give the best results, beautifully finished. Made to any size in Maple, Silky Oak, or Rosewood, in Table Models or De Luxe Period Designs.

We also design Cabinets to harmonise with any Furnishing scheme.

To Those in the Country  
To facilitate packing we supply  
"knock-down" Cabinets, cut and polished, ready to screw together.

Full particulars gladly supplied on receipt of your requirements.  
Compete Sets supplied if required.



BRUNSWICK ST. - OPP. JACKSON'S BOND  
STORES-NEAR EXHIBITION-VALLEY-BRISBANE

THE QUEENSLAND  
RADIO NEWSA Magazine for Amateurs  
A. T. BARTLETT, Editor

## THE EDITOR'S PAGE

### MILESTONES

**W**E recently witnessed the passing of a notable milestone in the little-traversed road of Radio in Queensland. Not that the man in the street would attach any great significance thereto, but we, who are deeply concerned in the advancement of Radio in Australia—and Queensland in particular—consider it worthy enough to find mention here.

The 27th of July, 1925, saw the birth of broadcasting in this State. A temporary small-power station—hopelessly inadequate to serve even Southern Queensland efficiently, lifted a puny voice into the ether and so planted the tiny seed of radio entertainment that has so quickly grown into a very real institution in the lives of the community.

"4QG"—the name then sounded harsh and unfamiliar. The majority of the public who first saw it mentioned in the columns of the press wondered whether it was a new brand of China tea, a regimental number or an automobile number. Only to the handful of wireless enthusiasts did the name hold any real significance.

Twelve months have since rolled by, and the name of "Station 4QG" is now a household one. Myriads of aerials have since sprung up, reaching out hungrily into the ether to snatch the music, song and story therefrom. Although the youngest broadcasting station in the Commonwealth, 4QG has attracted a greater percentage of licenses than those of N.S.W., which have been transmitting for several years.

So although 4QG's first anniversary slipped unostensibly by, we regard it as an eventful milestone in the progress of Radio in Queensland.

# The Radio and Electrical Exhibition

## Brisbane's Initial Effort a Huge Success

It was not an easy matter to pass by the Exhibition Concert Hall during Show Week without learning that there was something of importance going on within.

By day huge hoardings, and the deep voice of a loud speaker (operated from within the hall by an amplifier) told all and sundry of the wonderful sights that were to be seen within. In the evening three very powerful searchlights placed on stands which were erected on palm trees, played on the stately old building, throwing the red brickwork up in striking relief to the starlit sky above. The organising committee must have felt highly gratified at the wonderful success of the venture, and we feel quite safe in saying that it will be the forerunner of many others to follow.

The Exhibition was opened at noon on Monday, August 9th, by his Worship the Mayor (Ald. W. A. Jolly). His speech was broadcast from the demonstration studio of station 4QG, which arranged a special transmission for the occasion.

Attendance was fairly steady throughout Monday and Tuesday. Being "off days," this was really expected. Crowds thronged the building, however, in the evening, many finding amusement in listening to the entertainment provided in 4QG's demonstration studio, whilst others absorbed themselves in the many attractive displays of radio and electrical goods.



The Sandman, Uncle Jim, Uncle Ben, Mabel Sunshine, Pete, Sambo, and the Jolly Coppersmith on the stage.

A word of praise is due to Uncle Ben, Uncle Jim, the Sandman, and "Pete" for their goodness in devoting quite a lot of their own time in order to meet and amuse the children who attended the exhibition.

Every morning and evening—from Tuesday until Saturday, this party gave two and sometimes three entertainments a day, singing and joking in the same old way that the children were wont to hear them over the radio.

On Saturday, August 14th, Uncle Ben and Co. gave their bedtime story session from the Exhibition, and the great hall was crowded to the doors by children with their parents and friends, many of whom arrived hours before the appointed time, so that they would enjoy an uninterrupted view of their beloved uncles. The picture shown below gives some faint idea of the crowd that thronged the hall.



A portion of the large crowd which filled the hall on Saturday evening, August 14th.

These bedtime story-tellers from 4QG must have felt flattered indeed at the enthusiastic reception accorded them. There is not the slightest doubt that they hold a very big corner in the hearts of all the little listeners.

Later in the evening each member of the party was presented with numerous electric kettles, grills, torches, toasters, &c., &c., as a token of appreciation from the exhibitors for their efforts in helping to make the exhibition a great success.

# The Amateur Competitions

## *At the Recent Radio and Electrical Exhibition*

Possibly the stall that attracted the greatest attention at the recent Radio and Electrical Exhibition was the "Amateur Radio Section," which contained the exhibits of over 70 amateurs of Brisbane and environs.

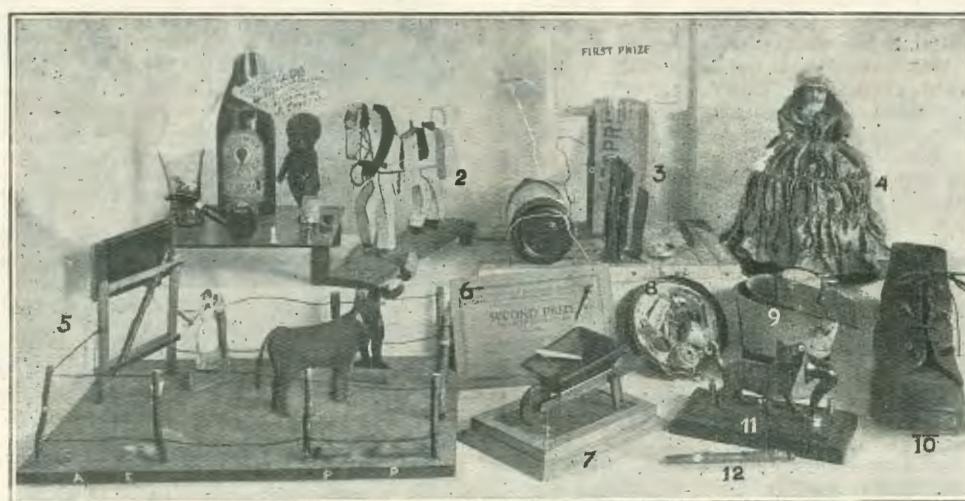
This stall was managed throughout by "The Queensland Radio News," and a display of their various wireless publications were also included on the stall.

Although the stall was the most spacious of all, it proved too small at times for the crowd that thronged it. Many people had to wait their turn to get a glimpse of the sets arranged in the various sections.

### SOME NOVEL CRYSTAL SETS.

Nine sections were arranged on the stall, and most of them were well supported. Section 4 (Most Novel Crystal Set) attracted 19 very clever entries, some of which are reproduced on this page.

"THE WOOP WOOP SUPER STOUT SET." Number 3 was the first prize winner of the section. It was a crude but clever assembly of odds and ends, all of which (except the crystal) may be found in any back yard. The base board consisted of the end of a kerosene case, upon which were erected two pieces of board (also part of the case), roughly chopped with an evidently blunt axe. Through these two handles ran at right angles, to which were fastened at one end three pieces of kerosene tin spaced about  $\frac{1}{2}$  inch apart. These formed the moving plates of the condenser. Three more pieces of tin of similar size were nailed to the base of the set and were spaced in the same manner to the moving plates to allow the latter to move to and fro for tuning. We can hardly term the tuning adjustment as "vernier," but it certainly controlled the volume. The coil was wound around a bottle; the crystal cup consisted of a cocoa tin lid, and the



Some of the Novel Crystal Sets described in detail on this page.

Number 1 in the illustration is a crystal set and represents "The End of a Perfect Day." The coil was placed inside the bottle, while the black kewpie held the catswhisker in place, touching the crystal which was planted in the bowl of the pipe. A fumbler was placed on the left, and filled with cotton wool. This was added merely for effect.

Number 2 was a clever little idea in which a wooden horse branded "Tony" featured. The coil wound around the body, and the Aerial and Earth terminals placed either side. The catswhisker was arranged near the tail of the "animal" as shown. The phone terminals are seen above "Tony's" shoulders, while a miniature pair of 'phones were placed on his head.

crystal was held in place with tinfoil packing. The phone terminals consisted of two bent nails. The set gave good results and well deserved the prize awarded it.

Number 4 was termed by its owner as "Miss Radiola." She was mounted on a circular base-board, which her spacious crinolin hid. Beneath her dainty dress were arranged the aerial and earth terminals, catswhisker and crystal. The phone terminals took the place of her hands.

Number 5 was a rather cumbersome affair, but nevertheless a good attempt. The coil is wound on the former, supported above the gate. The catswhisker was affixed in the cow's horn, while the crystal cup and crystal was attached to the dairyman against the fence.

Number 6—the second prize winner—was the smallest set exhibited—so small in fact that we were obliged to pin it to the certificate in order that it may be seen. It consisted of a crystal set on a safety match stick, the coil being wound around the head and the crystal tied on to the stick. It received 4QG at good phone strength.

Number 7 represents a workman's pick and barrow. This model was exceedingly neatly made—not a wire being visible anywhere. The cat's whisker was arranged from the point of the pick and touched the crystal resting in the barrow. The coil was placed inside the base board, and the phone terminals were neatly inserted in the end of the barrow handles.

Number 8 was also a very original and praiseworthy attempt. It was arranged in the form of a lady's work basket, the coil being wound around the cotton reel, the cat's whisker taking the shape of a needle, the point of which rested on the crystal, which was housed in the thimble. It would take the layman quite a while to perceive that a wireless set was contained therein.

Number 9 is a crystal set arranged in two flower pots placed within each other. The crystal and cat's whisker were mounted on a separate panel.

Number 10 created much fun among visitors to the amateur stall. A crystal set in a boot!—and it worked quite well. A condenser was placed inside the boot, the dial being fixed just below the top.

Number 11 was a very original and well-thought-out idea. A rubber cat was mounted on a base board together with a hand-carved miniature loud speaker. The crystal was fixed in the horn of the speaker, the cat's whiskers touching the crystal. It was the real cat's whisker without a doubt. The coil was placed within the cat, and the phone plugs in the ears of the cat. Not a wire was visible.

Number 12 is a crystal set in a fountain pen. There were many other novel sets, but their owners called for them before we could photograph them. They comprised sets on kewpies, watches, etc., etc., and were all bright ideas.

#### SOME FINE MULTI-VALVE RECEIVERS.

Section 7 (Best Multi-Valve Set) boasted ten entrants, and may be regarded as the principal section. This was won by a well-built Browning-Drake receiver exhibited by Mr. H. Kington. The second prize went to a very elaborate and beautiful five valve receiver enclosed in glass. A watch and volt meter were neatly arranged in the front panel, and altogether the set made an attractive exhibit. Numerous other sets were entered ranging from an eight-valve superhet down.

Four transmitters were displayed in Section 1 and attracted much attention.

The official adjudicator (Mr. W. Monkhouse, A.M.I.E.E., A.M.I.E., Aust.), appends his notes hereunder.

#### ADJUDICATOR'S NOTES.

The promoters of the amateur competitions during the Radio and Electrical Exhibition must have felt gratified in the response from amateur set builders, and the entrants are to be complimented upon the wonderful showing they made in such a short notice. When looking over the display one could not but feel that the amateur is still holding his own. One of the outstanding features of the show was the most novel crystal set section, and the prize-winning set demonstrated how a real good receiving set

could be made from really crude materials. It was called the Woop Woop set, Model L, and built from parts of a kerosene tin and the retaining case. Most of the competitors in this section seemed to think that because they mounted their set on or in something striking that this made it novel, but they must agree that novelty must include simplicity as well as utility. Amongst the set builders there seemed to be a tendency to slum the work out of sight, and they should all remember that to make a set perfect as possible all parts should be made as good as possible. It is useless having an elaborate or fancy cabinet if the work contained therein is not up to the external standard. Some of the 1-2-3 valve and multi-valve sets reached a high standard, and it is hoped that these set builders will assist in any future occasions. The best piece of home-made apparatus showed only four entrants, and this section should receive more support. Most people can assemble made parts, but we want more showing from those who can create the parts with their own hands. The first prize in this section was a hot wire milliammeter, and the maker is to be complimented on his efforts. The second prize-winner is also to be congratulated. His transformer showed a good knowledge of the principles involved, and was well designed and arranged.

The most selective crystal set was a difficult problem to solve. There seemed a tendency amongst quite a number of the competitors in this section and others to have too many points of control. This makes it difficult to get efficient results. Simplicity of control is a great feature in the design of a set and could be a point that might be considered on future occasions.

#### THE PRIZE WINNERS WERE AS FOLLOWS.

Section 1 (Low Power Transmitter).—1st: Walter F. Scott, Boundary Street, West End, Brisbane. 2nd: W. Faber, Kedron Avenue, Mitchelton.

Section 2 (Short Wave Receiver).—1st: Graeme Grossett, Sandford-street, South Toowoong. 2nd: H. and C. Stephenson, C/o Wooloowin Radio Club, Wooloowin.

Section 3 (Home-made Apparatus).—1st: V. F. Kenna, C/o Wooloowin Radio Club, Wooloowin. 2nd: H. and C. Stephenson, C/o Wooloowin Radio Club, Wooloowin. Comended: V. F. Kenna, C/o Wooloowin Radio Club.

Section 4 (Novel Crystal Set).—1st: C. M. Emanuel, Neuman Street, Gaythorne. 2nd: Jack Clowes, "Veronica," Moore Street, Milton.

Section 5 (Selective Crystal Set).—1st: Ray Connelly, C/o Wooloowin Radio Club, Wooloowin. 2nd: George Marshall, Paten Street, North Ipswich.

Section 6 (1, 2 or 3 Valve Set).—1st: Geo. H. Payne, Stafford Street, Kedron. 2nd: C. J. Grant, C/o Wooloowin Radio Club, Wooloowin.

Section 7 (Multi-valve Set, 4 valves or over).—1st: H. and J. W. Kington, C/o Wooloowin Radio Club, Wooloowin. 2nd: Norman Eagle, Cambridge Street, Red Hill.

Section 8 (Juvenile, 14 years or under, Home-made Apparatus).—1st: Fergus Thomas, C/o Wooloowin Radio Club, Wooloowin. 2nd: David Dahl, 13 Mountjoy Street, Petrie Terrace. Comended: Fergus Thomas, C/o Wooloowin Radio Club.

Section 9 ("Queensland Radio News" prize, Wave Trap).—1st: L. Whitlam, 246 Leichhardt Street, Brisbane. 2nd: C. J. Grant, C/o Wooloowin Radio Club, Wooloowin.

# SOME NOTABLE EXHIBITS

*At the Recent Radio and Electrical Exhibition*

The exhibits at the Radio and Electrical Exhibition reflected a great deal of credit and taste upon those responsible for their arrangement. Without exception the displays were most attractive, and in some cases were very instructive.

When one considers that up to the afternoon of the Saturday preceding the opening of the Exhibition the carpenters and signwriters were busy on the erection and painting of the stalls—leaving only Saturday evening and Sunday for the exhibitors to arrange their displays—one has some idea of the disadvantages under which the exhibitors were working.

The stalls, which measured only 10ft. x 10ft., afforded a forceful exposition of the effective utilisation of small space. The showing in practically every case was very complete, and frequently represented from 150 to 200 different lines.

Radio apparatus (apart from sets) is not an easy thing to make an effective showing of. Electrical apparatus is admirably suited to display purposes, and the electrical houses had this point in their favour. However, it would have been a hard task indeed to single out any particular stall at the Exhibition as being outstandingly superior to its neighbours.



## Siemens Aust. Propy. Ltd. Perry House, Brisbane

It was perhaps something in the nature of a surprise, upon reaching the stand of this well-known firm, to see such a large and comprehensive display of widely differing types of electrical apparatus, ranging from the company's well-known C.M.A. wires and cables and English electric motors and generators to the highly specialised and delicately constructed telegraph instruments, &c.

It is indicative of the very wide field of operation of the company that such a comprehensive display of its products is possible and the public has not been slow to take advantage of the opportunity of acquiring many appliances which, for long past, have been un procurable in Queensland.

The company has taken advantage of its long experience in telephone manufacture, including

automatic telephones, to place upon the market the "Quality" radio headphones, which possess a remarkable quality of both tone and volume. These are very good value at 25/- per pair. Other radio exhibits include loud speakers, also the vacuum protector and switch and the rather remarkable "C.V." (crystal valve) receiving set. This set possesses exceptional volume and quality of tone at a medium price.

Something new in the way of guarantees is found with the "XCEL" British-made electric iron, with side entrance connector. Whereas other irons are advertised offering one or more years of guarantee, the "Xcel" is guaranteed for "life." At 32/6 this is very attractive.

Another product of the company which is of interest to wireless constructors is the wide range of ebonite, sheet, rod and tube. This is very easily worked, takes a good polish and is considerably cheaper than most other radio materials. Its dielectric value is very high.

Siemens-Elliott measuring and testing instruments were of interest to the technical man, as also were the Siemens "R" quickbreak knife switches and "Zed" cartridge fuses.

Benjamin industrial reflectors, switch gear, Siemens dry and wet batteries, Marelli fans and motors, as well as a wide range of wiring accessories, all have their points of interest and it is interesting to know that large stocks of these are carried in Brisbane.

Another exhibit of the company was the model automatic telephone exchange. This was a working model of the company's system as installed in Brisbane and many other parts of the world, and many hundreds of subscribers were enabled to see just what happens when the Dial is used.

Siemens electric lamps, which are announced as to "Keep Australia White" were largely used to illuminate what was an exhibit of wide range and exceptional interest.



## The Edison Swan Electric Company Limited

An Attractive Exhibit.

At stand No. 19 the public had an opportunity to inspect a large and excellent range of the well-known "Ediswan" products, including valves of all

types for radio work, and electric lamps for lighting purposes.

As is already known, "Ediswan" material is entirely British, and therefore is of a high standard.

A very handsome wireless receiver and speaker formed the central feature of the exhibit. These were beautifully inlaid in colour with Chinese motifs. Naturally such exquisite pieces of work drew forth appreciation from all who viewed them.

Besides the display of "Ediswan" valves, there were exhibited a range of the famous "Dulcivox" and "Televox" loud speakers, wireless receivers of all kinds, headphones, transformers and radio accessories.

Another feature of the exhibit was a showing of the popular "Ever-Ready" "B" batteries—which are made entirely in Australia, and are giving satisfaction to thousands of Australian radio fans, at a fraction of the cost of imported batteries. Another favourite "Every-Ready" line included in the display was the "Ever-Ready" torch.

The busy housewife was well catered for by "Ediswan" in the display, by modern electric irons, kettles, vacuum cleaners, radiators, fans, &c., &c.

Altogether the display was a highly commendable one and one which was not only interesting but educating. It was arranged by the Edison Swan Electric Co., Ltd., 156 Creek Street, Brisbane.



## The Lawrence & Hansen Electrical Co. Limited

An Interesting Stand.

One of the most interesting exhibits at the Radio and Electrical Exhibition was that of the Lawrence and Hansen Electrical Company, Limited. The

radio amateur here found many things to claim his attention, chief among which being:—

Philp's well-known and highly efficient valves famed for their low filament voltage and long life.

Philp's rectifiers—for re-charging radio accumulators at home from the home lighting supply. These, like other Philp's products, are of a high standard.

The popular "Sterling" loud speaker range were also featured. As is well known, these speakers are British made, and represent phenomenal value. The favourite "Dinkle" Sterling was well in evidence, while a showing of the new Sterling product the "Primax" hornless loud speaker—a higher priced but most artistic piece of work. Demonstrations showed that the round, full and evenly distributed volume of this new type of speaker was something entirely new—no trace of metallic harshness being present.

A range of Hart and Hegeman ("H and H") radio accessories were very interesting. Although comparatively new to Brisbane, these radio products are well and favourably known in other parts of the world.

Columbia "B" batteries—the long life battery—also featured in the display. Columbia batteries are reliable and give steady discharges over long periods, making them ideal for radio work.

The "L and H" display was supplemented by all manner of house lighting and labour-saving conveniences, chief among which were: "L and H" electric irons, percolators, toasters, grillers, vacuum cleaners, "Helca" stoves, "Sterling" reflectors and floodlights, etc., etc.

# Home Radio Service Ltd., 1st Floor Courier Building, Brisbane



## A Comprehensive Display

Home Radio Service Ltd. held the interest of both dealer and Amateur Radio Enthusiast to a marked degree at the Radio Exhibition by reason of their comprehensive display of dozens of well-known and leading lines in Radio Receivers and Accessories.

Possibly one of the greatest attractions was the complete showing of the famous BRANDES' goods, principally

The other accessories shown included Argentite, and Russell's Hertzite Crystals, De Forest Valves, "Tower" Scientific Speaker, "Spitfire" Speakers and Phones, Radio Panels, and a complete line of "H. & H" Radio Material, and "Emmco" Australian-made products; also Clyde "A & B" Batteries. In sets were shown the following makes, for which Home Radio Service are Queensland Distributors:—

Stromberg Carlson (6-valve Neut.), De Forest F5AL & D17 Sets), Kennedy (3, 4 & 5 valve and 5V Console sets), Rico Dyne (5 valve), Splitdorf (5 valve), Crosley (1, 2 & 3 valve), and last but not least—a portable wireless wonder—the Minuet P3.

This set was the sensation of the show. Because it was no larger than the average camera, because it could be simply carried by a child, and because it was complete in every detail it attracted and demanded maximum attention from the thousands who saw the Radio Exhibition.

This set is a 3-valve, and a credit to Australian genius. It is sold complete with Batteries, valves, self-contained aerial, and ground spike, and "Spitfire" speaker, and will tune-in Southern Stations at Loud Speaker strength anywhere in Queensland.

The demand for these sets is ample evidence to Home Radio Service, the Sole Queensland Distributors of their popularity.

# Brandes

*TRADE MARK REGISTERED*

## Matched Tone

### Radio Headsets

Also Brandes' Table Talker at 45/-, and the Brandes' "Brandola" Speaker at £6/10/-. These "Matched Tone" accessories are experiencing a justified popularity in our State!

# J. B. CHANDLER AND COMPANY

"Lighting and Heating Specialists."

"For Radio Service."

Electricity is the achievement of the age. It has gone far already and no one can say how much further it will go—to what supreme degree it will eventually revolutionise life, not only in business and mechanical spheres, but also in the domestic sphere. In this last, the domestic sphere, it should be accepted with open arms. Women should welcome it as the greatest blessing offered them. Electricity serves them faithfully and well. It replaces old methods, and invariably performs the task more speedily, more cleanly and more effectively. It provides new ideas and methods, achieves economy of time and money. It therefore behoves all housewives and their menfolk, to investigate this subject of electricity as applied to the home, which aims to eliminate domestic drudgery and so promote pleasurable efficiency.

The electrical section of J. B. Chandler and Company's stand at the recent Exhibition was of interest to a very large proportion of visitors. Perhaps most striking among the exhibits was the display of Manning-Bowman electric household goods—coffee percolators, and percolator sets, Waffle irons and toasters. These electric cooking appliances are a distinct achievement in beauty of appearance and perfection of design. They are constructed according to the latest improvements evolved by a firm of long-standing who were pioneers in percolator construction. Manning-Bowman goods combine the usefulness of electricity with the charm of plated-ware. They can come right into the breakfast table—or for that matter at any meal time—and do quite simply, what otherwise would be done in the kitchen in the form of complicated preparations.

Leading makes of electric irons were shown in operation, proving to what extent the electric iron reduces the fatigue of ironing day. Also, in operation, were sewing machine motors that are a great boon to dressmakers and those who have much sewing to do for the little ones.

To many visitors at the Exhibition the Copeland electric refrigerator was probably new—this in an improvement on ice refrigeration. The Copeland system of refrigeration for the home keeps food longer and better, because it maintains a temperature 10 to 12 degrees colder than an ice-cooled box. It creates a dry cold air which retards the growth of bacteria and so preserves food for a longer time in a perfect state. Odours can not pass from one food to another in this dry air. A Copeland-equipped refrigerator is always clean. Almost invariably it proves to be cheaper than ice.



Naturally wireless was given considerable prominence in the Radio and Electrical Exhibition. For wireless is the topic of the hour, the subject which is discussed on all sides and which excites interest in and out of the community. Amongst the exhibits in the Radio and Electrical Exhibition, those of J. B. Chandler and Company attracted attention from enthusiasts and experimenters, and laymen, too, Chandler's are famed "For Radio Service," and they exhibited a representative range of the regular stocks in their showrooms.

A huge range of radio parts, showing the most up-to-date ideas, were on display. Crystal sets of various kinds had their place there, and amongst them the "Gloriola", manufactured by the firm itself. This 5-valve wireless set is very simple to operate, in fact a child could work it. It requires no technical knowledge. It receives clearly, with sufficient volume, any Australian station; also it is possible to get oversea stations on the "Gloriola." It is mounted in a handsome cabinet.

The Freshman Masterpiece 5-Valve radio set, which ranks indisputably as the "world's greatest radio receiver," was there also. It represents one of the foremost radio successes up to date. Ease of tuning-in is one of its outstanding features. The set has a balanced receiver which obviates all the usual delay of tuning-in—you can get Brisbane (4QG), or Southern stations right away. No headphones are required. Simplicity of control, with maximum operating efficiency, due to the utilization of three individual controls, enables any user of the Freshman Masterpiece to tune-in with perfect ease and accuracy. The appearance of the set is all that could be desired—it is mounted in a handsome cabinet of Queensland maple.

Such exhibits as these are of decided educational value to the womenfolk, besides the radio enthusiast and acquaint them with the latest helpful ideas which otherwise would not be made known to them except by chance.



## Amico (Q.) Limited

A Fine Display by "Brisbane's Electrical House"

Few indeed there were who visited the Radio Exhibition and who did not pause to admire the very comprehensive and attractive display by Amico (Q.) Ltd.

"Bugiphone" radio receivers were arranged in a wide range of beautiful models. Their neatness of

construction, their beautiful cabinet work, and their all round excellence make one feel proud that such fine instruments are made entirely in Australia, and are therefore best suited for Australian conditions.

The popular "Winchester" radio batteries were also included in the display. The uniform and consistent good service rendered by "Winchester" batteries has come to be a byword among amateurs.

A wondrous array of beautiful electrical fittings for the home or office, ingenious labour saving devices, &c., &c., were a prominent feature of the display. Prominent among these were the famous Amico electric iron—the only British-made iron with a 3-years guarantee stamped on the element. Winchester torches was another fine line displayed at this stall. These torches are as famous as Winchester radio batteries. They are indispensable to people who find occasion to walk in unlighted districts after dark.

At intervals Amico demonstrated the utility and efficiency of their coffee percolators by supplying free coffee to all who cared to ask for it. Needless to say the offer was well availed of and many favourable comments were made on the merits of the percolator.

Electric sweepers, table lamps, kettles, fans, grilles, washing machines, bells and alarms, &c., &c., completed what was truly a fine and comprehensive exhibit.

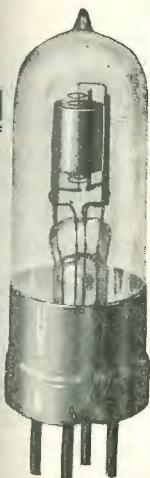
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**TYPES "A," "R," and "R."**

Plate Voltage, 30-80.  
Filament Voltage, 4.  
Normal Filament Current .75 amperes.  
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**TYPE "A. R. 06."**

Filament Voltage, 2.5.  
Plate Voltage, 20-50.  
Filament Current .06 amperes. Price, 18/- each.

**ALL WIRELESS DEALERS**

Wholesale—

**EDISON SWAN ELECTRIC CO., 156 Creek St., Brisbane**

## Noyes Bros. (Sydney) Limited



### A COMPREHENSIVE DISPLAY OF QUALITY MATERIAL.

At this Stand a very comprehensive range of the well-known Ingranic radio components was exhibited, as were also an unassembled kit and a completely assembled mounted and wired set of components required to complete the very fine Ingranic six valve supersonic heterodyne receiver.

Also displayed was an assortment of Brown loud speakers, headphones, microphone amplifiers, and gramophone adaptors, covering the whole range of lines of this famous concern marketed in Queensland.

Other items of interest to the radio purchasers were the Oldham accumulators—which have plates made under the special activation process—these being shown in single cells and batteries of 4 and 6 volts, and the entire range of Philips radio valves, of which Messrs. Noyes Bros. (Syd.) Ltd. are wholesale distributors in Queensland.

On the electrical side Messrs. Noyes Bros. (Syd.) Ltd. are agents for the well-known Parkinson Australian manufactured alternating current motors, and a display of the smaller sized of these motors proved very interesting to the many who inspected it, particular interest being shown in the parts of an A. C. Parkinson motor, which were on view in a glass case.

In addition to the above, Messrs. Noyes Bros. (Syd.) Ltd. are agents for the following overseas electrical houses:—Buller's Ltd., Bruce Peeble's Ltd., The Electric Power Equipment Corporation, Ferranti Ltd., Callender's Cable and Construction Co. Ltd., F. and A. Parkinson Ltd., and, in addition, are wholesale distributors for Philips lamps and valves together with other popular Philips lines, such as rectifiers and "B" battery eliminators.

# The Brisbane City Council

## ELECTRICITY SUPPLY DEPARTMENT

*A Compelling and Instructive Display.*



The Brisbane City Council (Electricity Supply Department) fitted a very attractive stand in the form of two rooms of an electrically equipped house—a kitchen and a living room. These two rooms, with electrical household appliances shown in a proper setting, were one of the features of the exhibition, and attracted a large number of visitors.

Cooking demonstrations on an Australian-made electric stove were held every afternoon and evening, which proved conclusively that electricity is an extremely satisfactory cooking medium. Some delicious cakes, scones, and pastries were turned out, which were greatly appreciated by the spectators. The demonstrations showed the certainty of good results, which is ensured by the thermometer on the outside of the oven, which shows the exact degree of heat in the oven at all times, thus obviating guess work on the part of the cook. It was also shown that electric stoves are very economical in use, the average cost working out at about 1/- per week per person, based on a family of four adults. This figure is, of course, only approximate, the exact amount depending largely upon the cook. However, it is safe to say that electrical cooking is as cheap as any other method, and far superior in results, cleanliness, and convenience.

A large range of other electrical appliances was also shown, comprising kettles, toasters, coffee percolators, portable grillers, dish washers, clothes washers, vacuum cleaners, etc., etc. It is not possible to describe the exhibit in full in the space available, as we would like to.

A folder showing an astonishing variety and number of operations that can be performed for the small sum of threepence was distributed, and we are advised that further copies can be obtained at the Town Hall.

A word here with regard to the Council's new deferred payment wiring scheme should not be out of place. Under this system houses can be wired and fully equipped for electric lighting without any cash deposit. Payments are made by inserting shillings in a slot type meter; and the coins so deposited pay for light used, and instalments on the installation. The total sum payable amounts to from 1/- to 2/- per week, depending upon the amount of light used. Anyone whose home is not wired for electric light would be well advised to investigate this scheme, particulars of which can be obtained at the Town Hall.

The Council have advised us that they invite anyone seeking information on electrical matters to call, ring, or write, and they will willingly supply the desired advice.



*The*

# QUAM

*Radio's Best Speaker*

Invented and manufactured by James P. Quam, of the Quam Radio Corp., Chicago, U.S.A.—the manufacturers of Quam Condensers, the only Condensers in the World with Pyrex end-plates—Quam Transformers, and numerous other of the very highest grade Radio products.

Mr. James P. Quam, who is recognised throughout the whole of the United States as one of the leading Engineers in all Radio production, visited Australia last year to consult with the United Distributors Ltd. on the production of Radio Sets that would be entirely satisfactory for all Broadcast reception purposes throughout Australia, and the result of his work, combined with that of the Engineers of the United Distributors, has resulted in their superlative "UDISCO" type Sets.

Mr. Quam, however, was not satisfied that any of the Loud Speakers available in Australia were giving satisfactory reproduction, and bent his inventive mind and whole energies towards producing something absolutely superior to the others, and satisfactory in all respects. The QUAM SPEAKER is the result.

One of the essential differences of the QUAM from all other Speakers is a Silver Drumhead Diaphragm of 3/1000 inch thick that not only faithfully reproduces every articulation of the human voice, but also gives a musical tone that cannot be equalled by any other Speaker on the market today.

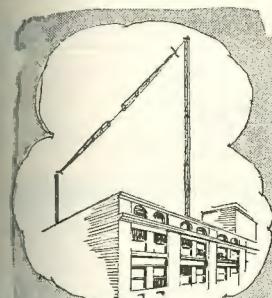
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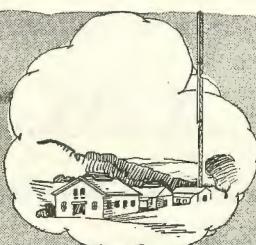
72 Clarence Street, Sydney. 66 Charles St., 26 Chesser St., Adelaide Cr. Jervois Quay and  
26 Queen St., Perth. Launceston, Tas. 664 Bourke St., Melbourne. Harris Sts., Wellington, N.Z.



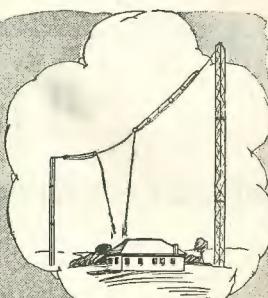
3.A.R. MELBOURNE



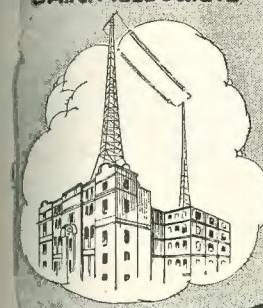
2.K.Y. SYDNEY



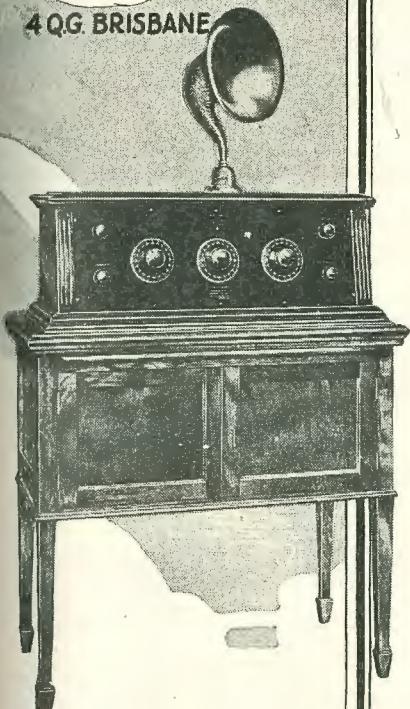
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*Distance no longer a bar!*

## UDISCO RADIO RECEIVERS

*Lay Australia at your finger-tips.*

Matthew Flinders in his frail craft could never have dreamed that his feat of seamanship in circumnavigating Australia would be duplicated nightly but a short century later.

Yet this is so. Nightly, owners of "UDISCO" Radio Receivers—without stirring from comfortable homes—are accomplishing what to Flinders entailed many weary days of hunger and privation.

All "UDISCO" Sets, whether "Eights," "Sixes," "Fives," or "Three," are built to a standard of excellence in efficiency and design never before equalled in the world.

Only the best components—assembled with scientific precision by a specially trained corps of radio Engineers—are incorporated.

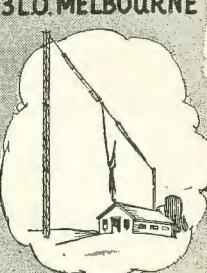
The "Capacidyne" circuit employed ensures reception of Stations operating on any wavelength between 20 and 2000 metres. This circuit—a purely Australian invention—gives selectivity, volume without distortion, superlative tone quality and ease of control.

Tuning dials synchronise—wavelengths are controlled with one switch—volume by another.

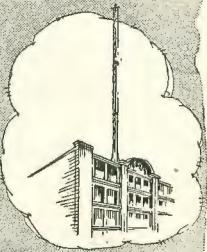
Housed in full polished cabinets of pleasing design, "UDISCO" Receivers are masterpieces of craftsmanship.

"UDISCO" Eight on Stand with Quam Loud Speaker, Clyde United Wet Accumulator, Ray-O-Vac B Batteries, Valves, and Aerial Equipment . . . 110 gns.  
"UDISCO" Five with Hawley Speaker, and requisite Batteries. No Stand. . . . . £45

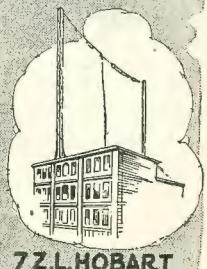
"UDISCO" Six on Stand with Quam Loud Speaker, Clyde United Wet Accumulator, Ray-O-Vac B Batteries, Valves, and Aerial Equipment . . . 75 gns.  
"UDISCO" Three, with similar equipment to Five, but with Hawley Junior Speaker . . . £29/10/-



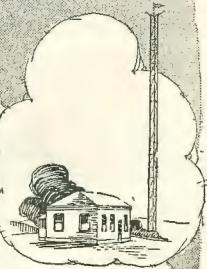
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NEW ZEALAND.

# The A.B.C. of Wireless

## A Simplified Description of Wireless for Beginners

### EDITORIAL NOTE.

For some time, we have felt that in view of the thousands of "recruits" who have entered into the radio field during the past few months, a department such as we have opened with this issue would find appreciation among such, who operate their sets, but do not understand how the various components which go to make up the set, function when receiving wireless waves.

Frequently, a beginner, in search of enlightenment, devours numerous text books on wireless subjects, but finds the technical explanations given a little too deep for him to grasp their meaning.

It is proposed to prepare this series of articles in the simplest every-day language so that the "man in the street" will find no difficulty in following them.

In our opinion, the best method of teaching the beginner is to dismantle a set, pick out each component in their proper sequence, dissect it, and with the aid of simple illustrations and comparisons, explain the duty of each component in the receiving of radio waves, and how and why it functions.

In order to make the series complete, it will be necessary to start right at the beginning with a simple explanation of wireless. Subjects to be dealt with through this department will include "The Crystal and the Valve," "Phones and Loud Speakers," "Coils," "Condensers," "Transformers," "Batteries,"

We would point out to the experienced experimenter that if some of our explanations are a little unconventional and, perhaps not quite theoretically perfect, they will remember that these articles are written for the beginner to whom a technical explanation would be difficult for complete understanding.

### A SIMPLE EXPLANATION OF WIRELESS

What is wireless? Possibly the best explanation is that of two persons talking. A speaks (or transmits) to B, who hears (or receives) the message. A's mouth is the transmitter, while B's ear is the receiver.

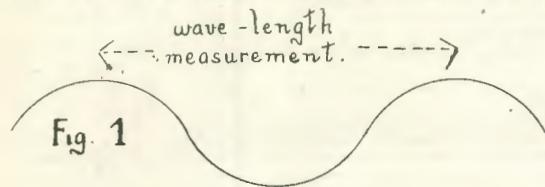


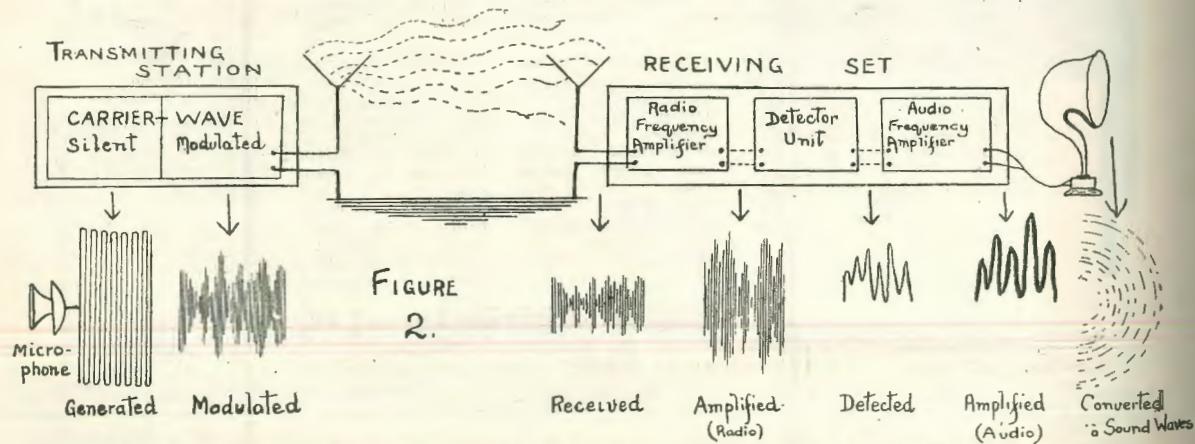
Fig. 1

ceiving set. This is exactly what happens when a concert is transmitted by 4QG or any other station and received on your receiver. The transmitting station "radiates" the voice of the artist who is speaking into the microphone, which travels on

"wireless waves," and is picked up on your aerial and converted back into sound waves by your receiver.

But what are "wireless waves?" They are disturbances or vibrations which travel at the enormous speed of 186,000 miles (or 300,000,000 metres) per second in all directions, and are spaced a certain distance apart. This spacing is termed the "wave-length," and is the distance from the apex of one "wave" to the apex of the next.

These "waves" are alternating, or, in other words, they surge first in one direction and then in the opposite, as shown in Fig. 1, and are inaudible. If we know the frequency at which they recur, then we can find their wave-length by dividing the rate of their speed by the frequency, or vice versa.



This Sketch illustrates the various stages in transmission and reception as described in this article.

The formula is as follows:—

$$\text{Wave-length} = \frac{\text{speed}}{\text{frequency}}$$

$$\text{Frequency} = \frac{\text{speed over}}{\text{wave-length}}$$

4QG's wave-length we know to be 385 metres, therefore if we divide the speed (300,000,000 metres per second) by this figure, we find that the frequency of that station's vibrations is 779,220. Just think, 779,220 vibrations are hitting your aerial every second. The frequency rates for 3LO and 2BL are a little higher owing to the wave-length being lower.

With the great number of broadcasting stations transmitting at the same time, it is sometimes difficult for a beginner to understand how only one station can be received. This is controlled by the "tuning" of your set. The parts controlling the tuning are the coils and condensers.

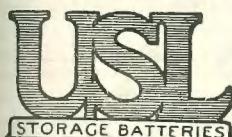
The aerial already possesses a certain wave-length, and to bring this up to the wave-length of the station we wish to receive, a coil of wire is added to increase the length of our aerial—usually in the case of 2BL, 3LO, or 4QG, 35 turns. Before these stations can be received, however, we must tune our coil,

or, in other words, bring it into exact resonance with the station we desire to receive. To do this we use a variable condenser.

The whole operation may be likened to tuning a violin. We have our four strings, G, D, A and E (which represents our coil), which we tune by means of the tuning peg, which produces the same result as our condensers. A more detailed explanation of the coils and condensers will be given in future articles.

The frequencies which we have now tuned in are called high or radio frequencies. In large radio sets these are passed through the first valve, which amplifies or increases the volume, and is called the radio frequency valve. So as to make the frequencies audible they are now passed through the rectifying or detecting stage, in which is situated the detector (either a valve or a crystal). The frequencies are now "audio" or audible, and are passed through one or two valves to increase their strength, and finally converted into sound waves by our phones or loud speaker. (See Fig. 2.) A simple and more detailed explanation of these actions will also be given in future articles.

Our next article will be a simple explanation of "Valves and Crystals."



## Complete Satisfaction at all Times with U.S.L. Wireless Batteries

### Radio Batteries

6 Volt 60 Amp.	£3 18 0
6 Volt 80 Amp.	4 19 0
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Power to receive the distant stations clearly, and clearness for 4QG.

There's long life and dependable service in U.S.L. Batteries, too.

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

## Butler Bros. [Aust.] Ltd.

"Monarch House"

CREEK STREET, BRISBANE

# WINNERS .. Every Time

The marked superiority of Radiokes Precision Browning-Drake Coil Kit as the tuning units for the most selective stable distance-bringing wireless set, proved by hundreds of delighted users, has again been demonstrated at the recent Brisbane Radio Electrical Exhibition when the winning multi-valve

set was Radiokes Precision Browning Drake Coil equipped... This following the winning of the Sydney Radio Electrical Exhibition first prize by the set equipped with the same coil puts the seal of perfection on

## Radiokes Precision Browning-Drake Coil Kit

To secure the best results with the Browning Drake and every other selective and radio amplifying circuit demands the very best of tuning condensers. The very best of British condensers embodying straight line frequency vanes, direct dial reading 100

to one geared friction clutch vernier dull finished brass plates, soldered connections, dielectric out of field shielded end plates grounded rotor, no hand capacity vernier knob, and absolute low losses was desired by the winner and approved by the judge in—

## SERVICE 100 to I Vernier S.L.F. Condensers

The best tuning circuit and best tuning units for perfect reproduction at full speaker strength with all the tonal beauty of the highest and lowest notes of the vocal and instrumental scales still require the

very finest of Audio frequency transformers. For competition the best at any price was, of course, selected, and best at any price, although not by any means the most costly is the famous British made

## FERRANTI SHIELDED AUDIO TRANSFORMERS

To complete the assembly and to ensure the perfect results that could be expected of such excellent equipment requiring the best of valves, without

which the distance, clarity, volume, roundness, and richness of tone would be lacking narrowed the selection to the "British—and Best."

## MULLARD RADIO VALVES

*Read what Mr. Hubert Kington the winner writes :*

EDGAR V. HUDSON,  
Charlotte Street, BRISBANE.

Dear Sir,—

I am pleased to inform you that my Four Valve Browning-Drake Receiver was successful in gaining first prize in the Multi-Valve Set Section at the recent Radio and Electrical Exhibition.

I feel sure that my choice of the Radiokes Browning-Drake Kit, Ferranti Transformers, and Service Condensers contributed greatly to this success.

Under test, using Mullard Valves, the results come up to my expectations, I consider it to be one of the best circuits I have assembled, and the components mentioned have my full recommendation.

I remain,

Yours truly,

HUBERT KINGTON

(Mr. Kington not only won the exhibition prize, but also secures the special Radiokes prize and Mullard prize)

THE ABOVE STANDARD COMPONENTS are obtainable from all RELIABLE RADIO DEALERS, and should be used by all AMATEURS, and demanded as equipment by all assembled set purchasers.

EDGAR V. HUDSON

55 Charlotte Street,  
BRISBANE

*Sole Distributor for Queensland*

# The Browning-Drake Receiver

FIRST PRIZE, MULTI-VALVE SECTION, RADIO AND ELECTRICAL EXHIBITION.

The Browning-Drake Circuit has, until recently, received very little prominence in Australia but when a receiver of this class won the blue ribbon at the recent Sydney Radio Exhibition, public interest was aroused.

This was followed by the success of another Browning-Drake receiver at the Radio and Electrical Exhibition, held last month in Brisbane.

This set, which was entered by H. and J. W. Kingston, is of very attractive appearance, and created quite a lot of interest at the Exhibition. Mr. H. Kingston is well known in local radio circles as the President of the Wooloowin Radio Club. He strongly recommends the circuit to all experimenters as one which, with a little experience, gives excellent results with fairly easy control.

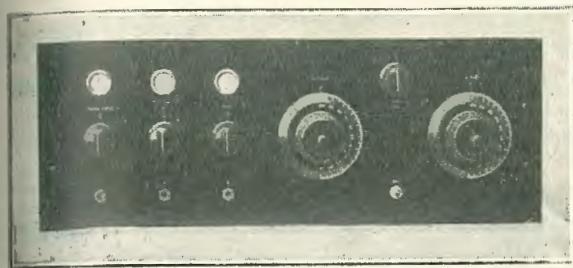


FIG. 1.

It is important, when assembling a receiver of this kind, that only good quality component parts are used. Inferior parts may certainly reduce the initial outlay, but the results are sure to cause condemnation of the circuit. Another important point is to thoroughly plan the position of every part, so that wiring will be as short as possible.

The layout of the front panel (Fig. 1) shows good balance and design. The controlling dials of the two tuning condensers are conveniently placed, while the rheostat controlling the radio frequency valve, which also acts as a volume control, is situated between them.

The first knob controls the reaction coil, while the remaining two are the dectector and audio rheo-

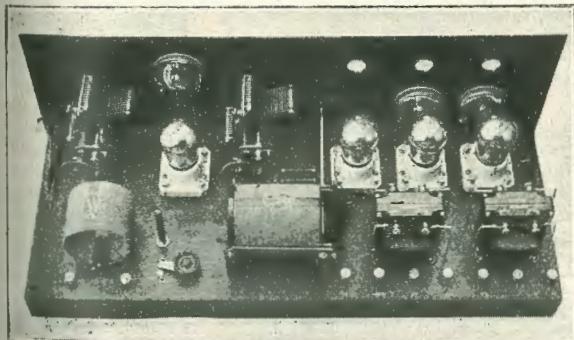


FIG. 2.

stats. It will be noticed that the American practice of set building was followed—that of placing the aerial circuit at the right-hand end of the front panel. This practice is recommended, as it is found that valve sockets and transformers better lend themselves to short wiring.

The positions of the various parts are shown in Fig. 2. Care was taken not to crowd the parts, and to have everything perfectly symmetrical. The radio frequency regenaformer is placed at the back of the second condenser. As the shaft of this regenaformer came at an unsuitable position, two ordinary meccano gear wheels were fitted to the shaft and the knob, which then allowed the latter to be in alignment with the other knobs.

Much thought was given to the wiring, so as to eliminate all unnecessary wires, and it will be seen in Fig. 3 that, apart from the jack connections (which are unavoidable), the number of wires has been reduced to a minimum. The small balancing condenser is placed under the sub-panel, and is controlled by the thin handle between the two coils. Jacks are inserted, so that two, three, or four valves may be used at will.

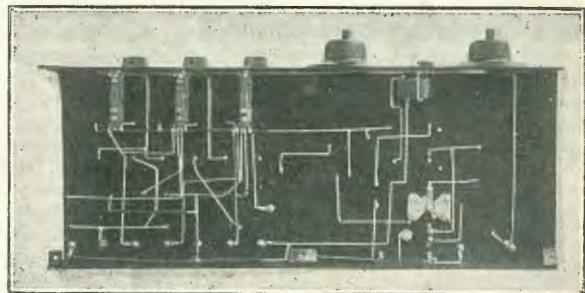


FIG. 3.

Owing to the weight of the transformers, three small brass brackets were used under the back of the sub-panel, along which a strip of bakelite was screwed. This further conceals and protects the wiring.

While at the Exhibition the set was mounted on a baseboard, the centre of which was cut out and a glass panel inserted. With the aid of two nickel handles on the baseboard the underneath wiring could be inspected without interference.

Now to the practical details.

The following is a list of parts required for building the set:—

- 1 Panel, 24 x 8½.
- 1 Sub-panel, 23½ x 9.
- 1 Strip Bakelite, 23½ x 2.
- 1 Radiokes Browning-Drake Kit.
- 2 .00035 Condensers (Vernier).
- 1 Neutralizing Condenser.

- 1 .0001 Fixed Condenser.
- 1 Grid Leak.
- 1 Grid Condenser.
- 2 3-1 Transformers (Audio).
- 4 Valve Sockets.
- 2 10 ohm. Rheostats.

- 1 30 ohm. Rheostat.
- 2 Double Circuit Jacks.
- 1 Single Circuit Jack.
- Terminals.
- Wire (heavy bus-bar).
- 1 Two-way switch (for aerial coil).

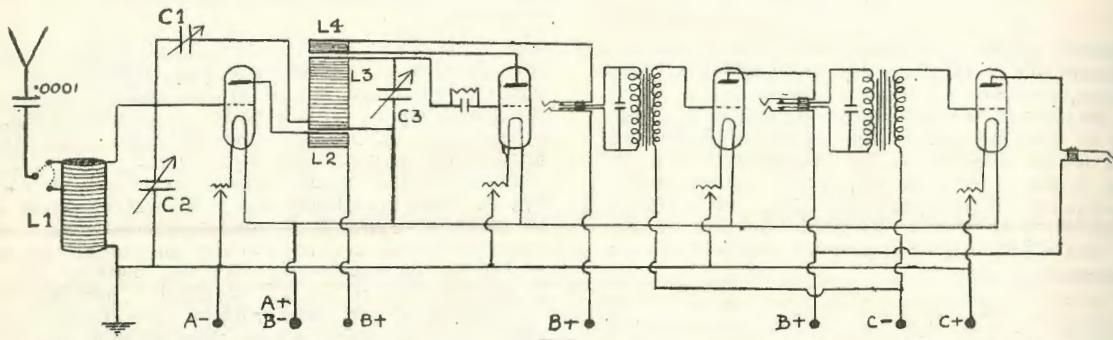


FIG. 4.

The circuit, as shown in Fig. 4, is not difficult to wire up, but one or two remarks will not be amiss. It may be necessary, when the circuit is tested, to reverse the leads of both the primary and reaction coils of the regenaformer, so leave these unsoldered until after the test.

The aerial coil is placed in the opposite direction to the regenaformer to prevent interaction. The values of both the grid leak and grid condenser are only obtained by test, so select a kind that will allow each to be changed. These can be seen in Fig. 2, just behind the regenaformer.

The transformers used have .001 condensers incorporated in the primary. The 30 ohm. rheostat is used on the radio frequency valve, while the 10 ohm. rheostats control the detector and audio stages respectively.

The coils could be self-wound, but in this case the Radiokes kit was used. These coils are air-wound and considerably enhance the appearance of the set. Good vernier condensers must be used, as tuning is very sharp.

Remember, the Browning-Drake circuit is unusual in some particulars, and requires a little practice to operate. Do not condemn the circuit if good results are not immediately obtained. The wavelength range of the coils, with .00035 condensers, covers all A and B broadcasting stations up to 500 metres. The B battery voltages are approximately as follows:—Radio frequency, 60 volts; detector, 20 volts, audio frequency, 90 volts.

## England to Russia

### New Wireless Service.

Advice has been received from London that the British Government has permitted the Marconi Company to erect and operate a wireless station in England for communication with Russia. The notice states that private and commercial telegrams will be accepted at any Marconi office in England for wireless transmission to Moscow or any part of Russia, facilities having been arranged for the rapid distribution of such messages throughout the country.

Mr. E. T. Fisk, managing director of Amalgamated Wireless (Australasia), Ltd., comments "That it seems difficult to understand why the British Government should permit an English company to own and operate a wireless station for communication with Russia, while refusing to permit an Australian Company to own and operate a similar station in England for communication with Australia."

# 4QG

3250 Miles on Crystal.

### Remarkable Long Distance Reception.

The following is an extract of a letter received at Station 4QG:—

The s.s. "Tapti" reports 4QG picked up 3250 miles (on Panama to Sydney track), clearly audible on Telefunken type E5 crystal, with 1LF amplifier. Heard every day from that distance at greater strength than any other Australian or American station. The s.s. "Niagara" reports 4QG superior to any station heard on the Sydney to Vancouver run. The "Niagara" also reports that many Honolulu residents regularly sit up to hear 4QG in preference to the U.S.A. Pacific Coast stations. United States Shipping Board operators also comment favourably on 4QG's good sea range and good quality transmission.

# Studio versus Outside Point

## Some Interesting News

"Why is it that music relayed from some outside point always sounds fuller and rounder than similar music broadcast from the studio?"

This question is probably the one which is asked more than any other by visitors to any station.

A representative of "The Queensland Radio News" put this question to a group of officials who were chatting informally at Station 4QG some two to three days ago.

"That is an old question," one of them replied. "A question which is asked several times every day in every broadcasting station, and is quite easily answered."

"Take the recent demonstrations at the Exhibition Hall," he continued. "You may have noticed that there was a fullness and a roundness of tone, even in solo items. It is quite possible to get the same roundness of tone in the studio."

"How would you obtain it then?" asked our representative.

"Merely by pulling down the studios and putting the Exhibition Hall up on the roof of the State Insurance Building," he replied, smiling.

Then followed a very interesting and informative chat regarding the transmission of items from outside points.

The size of the studios at a station are, it was explained, necessarily limited. Such being the case, any item given in them would result in the creation of serious echo effects if they were not draped. Draping is an evil, the broadcasting officials explained (and the little group represented experience in six different broadcasting stations), but it is a necessary evil where the size of a room is limited. In the case of a large hall or a church, the echoes

or reflected sounds from various portions of the building are too weak to seriously affect the microphone. They are strong enough to be slightly recorded, and so give that "full" or "round" effect which is so often mentioned by keen listeners. In a studio, however, where space is limited, echo effects would be exceptionally strong if no draping were employed, and would cause a certain amount of distortion. Studios are therefore draped so as to prevent echoes and give reproduction. The effect of cutting out all echo effects results, however, in a slight "deadened" reproduction being given.

The question of just what is best becomes, then, a problem. Absence of draping in a studio results in distortion; draping cuts out this, and gives a sweet but yet dull reproduction. Under the circumstances it is better to obtain the dull than the distorted tone. Many listeners may remember the poorly-draped studio at the temporary 4QG. In that room so bad were echo effects that solos often sounded like duets!

It is, of course, possible to arrange draping so as to be moveable, and to adjust it according to the items, giving less draping to, say, a solo than to a band or orchestra.

Such a scheme is theoretically sound, but would be quite impossible in practice. It would mean long delays between items, while the draping was rearranged. The broadcasting manager must, above all things, insist on promptness in programme working. No delays must occur between items. The officer in charge of a studio has his hands quite full during transmission hours, and cannot hold up a programme while he moves drapings."

## PROGRESS!

### QUEENSLAND AHEAD OF N.S.W.

The rate at which licenses are being taken out in Queensland must surely be gratifying to all radio enthusiasts.

As these lines go to press the total number of licenses in this State is in the vicinity of 15,000.

Some two or three days ago the Director of Postal Services, in making available some figures, said that the density of licenses in Queensland exceeded the density in New South Wales. By this he meant that on a population basis there was a greater number of listeners in this State than in our Southern neighbour.

The population of New South Wales is roughly three times that of Queensland, and, to equal Queensland's wireless figures, New South Wales would have to show 45,000 licenses. The number in the Southern State is considerably short of this figure, in spite of the fact that two large stations have been operating for almost three years!

The foregoing facts surely constitute a triumph for Station 4QG, and serve to indicate that its management has been along the right lines.

4QG has been subject to a good deal of criticism both fair and unfair.

Practical results are, however, the best reply to all criticism, and, the fact that after twelve months of operation 4QG's license figures are greater in proportion than in a State where talent is more plentiful, and where wireless has been established for three years, can only indicate that 4QG is sound.

# TUNE IN *With Super Power behind Your Set*



Give your Radio Receiver the extra "punch" that comes from a rugged, super-power filament battery.

Give it strong, uniform, smooth-flowing current, and know the real satisfaction of tuning in good, clear signals—without hum, roar, or buzz.

You can—with a CLYDE.

This famous radio storage battery is constructed throughout on the soundest engineering principles—in incorporates the very best materials—acid-proof, leak-proof, and indestructible—and is tested at each stage of manufacture by a staff of experts. Result: High efficiency, amazingly long life, and clear, unbroken radio reception.

*Manufactured by*

**The Clyde Engineering Company Ltd.**  
**GRANVILLE, N.S.W.**

To Motorists: The Clyde Battery is noted for its dependability and durability. When you put a CLYDE in your car, battery worry automatically ceases.

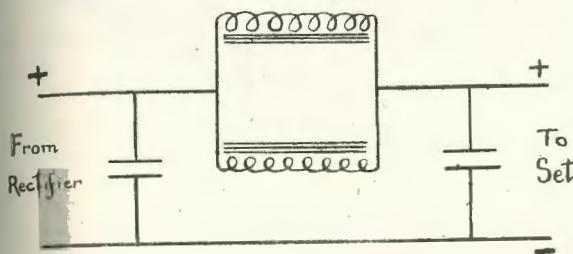
Clyde Radio and Car Batteries are obtainable from garages and radio dealers right throughout Australia.

# A Simple and Effective H.T. Filter

(By Harold D. Walsh, 4HW).

As a number of candidates are presenting themselves for transmitting licenses, it is felt that a description of a cheap filter arrangement will not be amiss, more especially as a number of the "I.W.W." stations now on the air have notes suggestive of a deplorable lack of filtration of the H.T. supply.

A bad note causes serious interference to neighbouring B.C. sets, and is rather difficult to read through Q.R.M. The filter here described has been in use for some time at 4HW on various wave lengths, and from most reports received there is practically no hum in the telephony and the C.W. is almost pure D.C.



The essential parts of the apparatus are two Ford spark coils and two 2mfd. condensers. The coils need not be new. They are usually discarded by the "in-lizz" owner on account of a broken down condenser or worn contacts, and in this condition can usually be purchased from a garage for a shilling or so. A new coil costs about 12/-, and one or two always come in handy to an experimenter. The condensers should be of good quality and tested to at least 500 volts. They may be obtained from most radio dealers.

The components are connected up as shown in the diagram. It will be observed that the coil secondaries are connected in parallel. This is in order to reduce the D.C. resistance, which is 5000 ohms for each coil—sufficient to cause a serious voltage drop across the tube. Only the secondaries are used, the connections being the two discs on one side of the coil. The disc on one end is not used.

The theoretical action of the circuit is as follows:—A pulsating unidirectional current as delivered by a full wave rectifier may be regarded as a direct cur-

rent on which is impressed an alternating e.m.f. It is well known that alternating current will pass through a condenser, and that an inductance offers a high impedance to alternating current.

In this circuit the condenser on the rectifier side of the coils by-passes a considerable proportion of the alternating component, and the coils act as a choke and tend to impede the passage of the alternating component but permit the direct current to pass through. The other condenser by-passes any A.C. which does get through the choke.

The complete outfit may be mounted in a small box with the necessary leads brought to an ebonite panel which may form the lid. An arrangement such as this in this station passes up to 100 milliamperes, and delivers 500 volts D.C. to the transmitters.

## "WIRELESS HOUSE" REMOVING.

The well-known and old-established radio supply business of Wireless House, Ltd., has found it imperative to move to larger and better premises, located in City Buildings, Edward Street (opposite Rothwell's).

Some special opening-up bargains are being offered, and readers would be well advised to pay this popular store a visit at their new address.

## Crystal Users

Valve amplifier, to give you loud speaker results from your present set, £4/10/-.

### Loud Speakers—

Spitfire Baby	.....	£1	5	0
Spitfire Junior	.....	1	17	6
Amplion AR38	.....	3	0	0
B.T.H. Cr	.....	4	10	0
Meistersinger	.....	5	19	6

### 'Phones—

Spitfire, per pair	.....	0	17	6
Rico, per pair	.....	1	2	6
Siemens, per pair	.....	1	5	0
Brandes, per pair	.....	1	10	0

Glass enclosed Barrel Detectors, 3/6 each.

## J. T. Greenlees & Co.

Albert House, Ann Street, Brisbane

(Round the corner from the Tivoli Theatre)



### Wireless Aerials

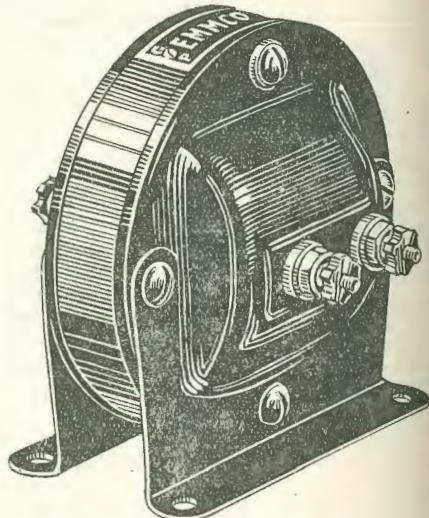
Supplied, Delivered and Erected.  
Good Timber, Solid Foundations. Enquiries Invited.

**G. H. BUSBY**

Lily Street, Stones Corner,  
South Brisbane

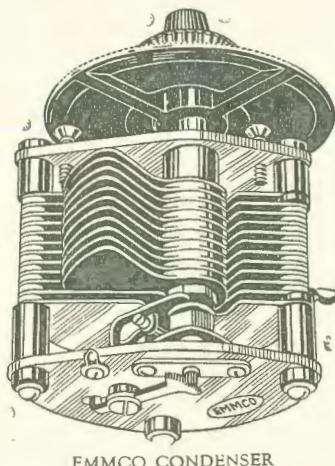
# *There are 3 Real Reasons why you get extra Value in Emmco Radio Products*

- (1) They are built to the very highest Engineering standards.
- (2) They are low in price.
- (3) They are made in Australia.



EMMCO TRANSFORMER

Rugged in built—handsome in appearance—powerful in performance—and more than reasonably priced—the New EMMCO Transformer needs no introduction to radio users who know the consistent quality and economy of EMMCO parts. Constructed throughout on the soundest Engineering principles, and backed by the prestige of one of the largest engineering concerns in Australia, it deserves its reputation as the King of Transformers. PRICE, 21/-.



EMMCO CONDENSER

Absolute insulation—grounded rotor end plates—straight line wavelength—and the most minute vernier adjustment. United with vast production facilities and highly skilled workmanship, these features have combined to produce a condenser that is amazing both in quality and cost.

For hair-breadth tuning and real selectivity, EMMCO condensers have no equal.

**PRICES:**

Vernier Type.	Plain Type.
.00025 . . . . . 20/-	.00025 . . . . . 13/6
.0005 . . . . . 21/-	.0005 . . . . . 15/-

*Manufactured by*

**Electricity Meter Manufacturing Company Limited**  
SYDNEY, N.S.W.

# Personalities

Mr. J. W. Robinson, director of station 4QG, is the proud daddy of a baby daughter. It's the first-born, and "Robbie" swears she's the finest little kiddie within range of 4QG's aerial—and that's saying a lot. It's Q.R.A. is as yet a secret, and we believe Q.R.N. to date has not caused serious Q.R.M. to the peaceful slumbers of 4QG's busy director.

Mr. Cliff Isles, a well-known figure in Brisbane radio circles, has taken unto himself another—no, not wife—another hobby. It's the cinema this time. Instead of twiddling dials he's turning handles, for he's got a swell little camera and home projector. Anyway Cliff, you'll be free from static and howling valves now.

Mr. L. C. Cusack, late of Port Moresby radio station, is now attached to the VIB radio. Mr. Cusack is well known among early-day amateurs of this State for his long-distance work. His ticket number is 4LC—and he'll be on the air very shortly.

Mr. Fred Engel—a well-known Brisbane amateur—is flotting over a balanced crystal arrangement by which he aims to cut out 4QG, without the use of wave-traps, etc. Good luck O.M., but your sure have a nut to crack!

The Western Electric Public Address System installed at the show grounds during Exhibition week at the show grounds during Exhibition week for announcing ring events, was responsible for a lot of noise. Spectators found the announcements very useful in keeping them informed of the ring events.

At the radio exhibition one morning a sturdy son of the soil wandered in. In the glare of the electric lights he looked not unlike Alice in Wonderland as he gaped about with open mouth. Slowly he rambled up to one of the stalls, and inquired in a husky voice, "Hey—when does the wood-choppin' start?"

On this page last month reference was made to the loud speaker operated by Mr. Spinks, of Gaythorne. Mr. Spinks has since been along to see us, denying the statement made and produced the signatures of several neighbours to support his claim. He admits he frequently places his big speaker on his verandah, but states that it has been done only at the request of his neighbours, who greatly enjoy it. Evidently our informant was one of the few who didn't.

Mr. W. Bardin (4AB) of the engineers' staff at 4QG, is dabbling in short-wave DX work. No doubt he finds his hobby quite a respite from the strenuous 5KW 300 metre work.

Mr. Bert Thomas, late of the Thomas Radio Company, is now attached to the sales staff of C.C.M.'s radio department. We feel that C.C.M. is fortunate

in securing the services of such a popular and capable young man.

Mr. A. Sagar (of 5CM fame) has left South Australia and has come to Sunny Queensland. He is attached to a Brisbane radio house, and intends to get his transmitter going soon. He'll sure be an asset to the 4's.

It has been stated that the broadcasting of church services from St. Stephen's Cathedral has given station 4QG something to think about. Until recently two microphones were used to broadcast the service, one being placed in the choir loft, and the other on the pulpit. It was found that any word spoken at the altar could only be faintly heard. To overcome this a third microphone was placed on the altar. The trio of microphones were found to give excellent results. The secret wiring system give no outward evidence of the service being transmitted. The length of wire necessary in the installation of the microphones is estimated at over 9½ miles.

"The Queensland Radio News" had the pleasure of meeting quite a number of country friends at the radio exhibition—"Bobby" Tait, of Charleville, whom we know is never happy unless playing around with wireless; Geo. Blessas (Cairns Radio Club); H. M. Lord (Roma); L. Helyer (London); G. Marks (Grafton); N. Wright (Charleville); N. Russell (Grafton); A. Smith (Dungog); J. and A. Fites (Charleville); W. F. Lanham (Nambour); J. Lovejoy (Rockhampton); A. J. Neal (Yangan); W. and M. Lindeman (Tenterfield); T. Dodge (Wowan); G. J. Woodgate (Jondaryan); E. Fitzgerald (Booowogum); N. J. Hansell (Caboolture); E. C. Wright (Herberton); R. R. Keats (Gatton); M. Ellis (Casino); A. E. Powell (Coolangatta); T. M. Paine (Gladstone); C. G. Kolts (2GK), N.S.W., and many others.

Mr. Walter Langworthy as "Sambo," with Uncle Ben and Co. at the radio exhibition, caused endless amusement among all who saw him. As a bright light from dark-town, Walter has a rare gift of humour, and he was responsible for many aching sides.

"Planning ahead" is a splendid motto, and it would seem that station 4QG have adopted it as their slogan. Recently it was announced that the Bishop of London would visit Australia and would be in Brisbane during February, 1927. 4QG was quickly off the mark and arrangements have now been finalised to broadcast his civic reception, the service to be conducted by him in St. John's Cathedral on February 13th, and also his address from the Exhibition Hall.

The Wooloowin Radio Club proved its mettle at the amateur section of the radio exhibition. The following are the figures: 22 entries—representing 31% of the total, and ten prize-winners, equalling 50 per cent. of the prizes awarded. Two special prizes awarded by Millard Wireless Service and Keith Stokes Pty., Ltd., were also secured by a club member. It is estimated that the total cash value of all the prizes reached £21 5/-.

Peculiar that both prizes in the transmitter section of the amateur stall should go to persons not holding a transmitting license.

**Harringtons**

# GILFILLAN NEUTRODYNES

A Triumph



CHAMPION PRIZE AWARDED GILFILLAN NEUTRODYNES at South Australian Railways Radio Exhibition.

Their construction assures simple, dependable operation. Meet all requirements of clear radio reception with super-sensitive selectivity, rich full tones, and unlimited range.

Prices: Complete with "Thorola" Speaker and all Accessories.

Model G.N.1. (5 Valve) .. £69 0 0

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EASY TERMS, FROM

**£5 Deposit**

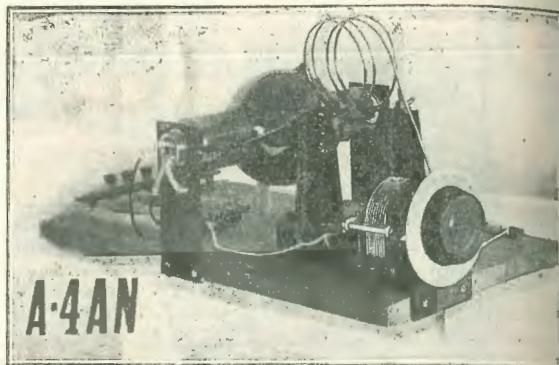
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**Harringtons** LTD

Photographic and Radio Warehouse,  
93 QUEEN STREET, BRISBANE.

Branches in all States and New Zealand.

Representatives Everywhere.



## 4AN's Five Metre Transmitter

Which attracted considerable interest in the non-competitive section of the amateurs' display at the recent Radio and Electrical Exhibition.

The strange looking rig shown in the photograph is an ultra short wave oscillator.

It was built purely for experimental purposes—~~and~~ to look nice.

Using about 150 watts of power, the oscillator puts over half an ampere into an antenna 14 feet long. The oscillations produced have a wave length of 4.73 metres, and a frequency of approximately 63 million cycles (or 126 million vibrations) per second.

It may be mentioned that five-metre oscillators of this power are very uncommon, most experimenters in this direction being content to confine their investigations to oscillators of comparatively small power. The difficulties of ultra-short wave work are generally considered to increase with the power, but this has not been found to be the case at 4AN.

The main difficulty appears to be in the provision of a satisfactory radiating system. The present antenna is a vertical indoor affair, but waves of this frequency are so rapidly absorbed by surrounding bodies (in this case, the house), that good results cannot be expected. An outdoor antenna coupled to the transmitter by a radio-frequency feeder may provide a solution to the difficulty.

If the universally accepted theory of radio communication holds good at these very short wave lengths, it would seem that five-metre waves will be useless for communication on this earth. However, it is thought in some quarters that if ever interplanetary communication is established, it may possibly be with the aid of these ultra-short waves.

Whether this will be so, time alone can show. Certain it is that they will some day add to the service rendered mankind by electricity.



## Happiness and Contentment

A perfect night's entertainment brings its own peace and happiness.

**PHILIPS VALVES**, which give perfect reception, bring a nightly entertainment into your home via Wireless. Purity of tone, and wonderful volume, combined with the undoubted economy in current consumption of these valves, make them the ultimate choice of the discerning buyer. There is a *type for every purpose*, but for Loud Speaker reception, the B406, the New Wonder Valve, is unexcelled. The main characteristics are as follows :

Filament Voltage, 3.4-4.0 volts. Filament Current, 0.1 amp.  
Saturation Current, 30 m.a. Plate Voltage, 20-120 volts.

Let your next Valve be a PHILIPS.

Price 13/6

Obtainable with either Standard English or American Caps, also the New U.X. Cap. Sold by all Radio Dealers.

Makers of the Famous Philips Lamps.

Specify

# PHILIPS

# We are Moving!

**During the First Week in September we will evacuate our Old Premises in Adelaide Street and enter our New Premises located in City Buildings, Edward Street, [IN SHOP RECENTLY OCCUPIED BY HARSTONS.]**



T HAD TO COME! Wireless House Service has won such a huge clientele of town and country business that our premises in Adelaide street have become hopelessly inadequate to cope with the ever expanding volume of business.

We are moving into larger and better premises located in City Buildings, Edward Street, in the shop latterly occupied by Harston's Musical establishment, nearly opposite Rothwell's.

The new premises are being arranged into

**SPACIOUS SHOPPING COUNTERS—DEMONSTRATION LOUNGE—TESTING LABORATORY—WORKSHOPS—COUNTRY ORDER DEPARTMENT and OFFICES.**

Although our old shop was one of the largest Radio Stores in Brisbane, shopping space was often inadequate to cope with the rush during the busy hours.

In our new premises, two lengthy counters, huge stocks, a staff of competent and courteous salesmen will assist you greatly to do your buying conveniently and quickly.

A Modern Demonstration Lounge has been designed, wherein you may hear the excellent performances of our famous "Dulcephone," and other well known makes of receivers.

A big feature of our new premises will

be our up-to-date Testing Laboratory and Workshop, wherein will be housed some extremely fine testing instruments. These are being installed not only for our own use but for the use of our customers who wish to test out any of their component parts for efficiency.

A spacious basement is being fitted up as a Modern Country Order Department to attend to the needs of our hundreds of friends in the country. This will be the most modern department of its kind in Queensland, and will offer the man out of town a quick and satisfactory buying avenue for wireless sets and accessories.

## Visit us at our New Address--

We'll be mighty glad to see you !



### Moving Day

Moving day brings back memories to us. It reminds us of the first wireless House next to Finey's in Adelaide Street little doll's house fair. That was in '22, when broadcasting was an unknown word. Then came our next move further along Adelaide Street opposite the Normal school. How big those seemed then—how quickly the dolls seemed to close and cramp our progress.

And now in '26—comes our BIG move. We thank everybody, who, by their patronage, has made this move imperative. We intend to show our appreciation by always giving you the finest radio value in this store.

**Our Rapidly Expanding Business demands MORE SPACE !**

## Opening-up Sale!

To mark the occasion of our opening up in our new premises we are offering many lines at big reductions. Country clients may also share in the big savings.

### "DULCEPHONE" RECEIVERS

Complete with all Accessories.

1 Valve .....	£8 8 0	3 Valve .....	17 0 0
2 Valve .....	12 7 5	4 Valve .....	24 0 0

### "CROSSLEY" SETS

Without Accessories.

2 Valve .....	£6 5 0	3 Valve .....	9 0 0
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### "IGRANIC"

Super - Heterodyne Kit with license plate .. £25 0 0

### BIG BARGAINS

Rubber Earpads, pair ..	0 3 0	Knobs .....	0 0 1
S.P.D.T. Porcelain Switch	0 2 6	Marco 3 Coil Tuner .....	0 5 0
3 Valve Crossley Portable Set .....	10 0 0	Shocking Coil .....	0 5 0
3 Valve Weco Set .....	8 0 0	Marco 6 ohm Vernier Rheostat .....	0 1 0
3 Valve Variocoupler Set .....	8 0 0	Murdock 3000 ohm Headphones .....	0 15 6
L.S. 3 Valves .....	0 5 0	Scientific 3000 ohm Headphones .....	0 15 0
True Blue Valves .....	0 10 0	Ericsson 4000 ohm Headphones .....	1 2 6
Ediswan R. Valves .....	0 5 0	Contact Studs, doz. ....	0 0 3
Loudon Valves .....	0 5 0		

# WIRELESS HOUSE LIMITED

Queensland's Oldest Wireless Supply House  
City Buildings, Edward Street



## *The FRESHMAN Masterpiece 5-Valve Radio Set*

To have the best in Radio Sets, a FRESHMAN Masterpiece, is to make one bite at the cherry. A really good Radio Set now means a guarantee of good reception for many years to come of any Broadcasting Station from any part of Australia, without effort, and as quickly as you may turn the dial knobs. The Freshman Masterpiece 5-Valve Radio Set is indisputably the "World's Greatest Radio Receiver." It represents one of the foremost radio achievements of the age.

### CLARITY AND VOLUME.

For clarity and volume of tone it stands unequalled. It gives true reproduction of all forms of broadcasting. Ease of tuning in is one of its outstanding features. The set has balanced receiver which obviates all the usual delay of tuning in—you can get Brisbane (4QG) or Southern Stations right away. No headphones are required. The

tone is mellow and sweet. The highest notes of singers and the highest notes of musical instruments are received and reproduced with perfect precision.

### THE FRESHMAN CIRCUIT.

This circuit, which is contained in all Freshman Receivers is "Standard of the World." It consists of two stages of tuned radio frequency, detector, and two stages of transformer coupled amplification. Many more broadcasting receiving circuits of this type have been built than of any other, and more are in use than any other in every part of the globe.

### SIMPLICITY.

Simplicity of control with maximum operating efficiency, due to the utilisation of three individual controls, permits any FRESHMAN Masterpiece user to tune in with perfect ease and accuracy.

**J.B.Chandler & Co.**  
*'For Radio Service'*  
45 ADELAIDE ST. NEXT ALLAN & STARKS  
BRISBANE

S.A.S.

# An Excellent 3-Valve Receiver

(By H. L. Hobler, A-4DO).

A radio receiving set that is capable of receiving distant stations at good telephone strength and nearby broadcasting stations at full loud speaker strength, is the desire of most broadcast listeners, especially when the cost of such a receiver is not much in excess of a score of guineas. With the high efficiency of the present day Australian broadcasting stations it is an easy matter to obtain loud-speaker reception from practically all of the East Coast stations, using a receiving set employing not more than two or three valves. However, when we put this same receiver to the test of picking up far distant stations, in practically all cases we find that it fails us altogether. No matter how carefully the set is tuned, the weak carrier waves which are sometimes heard cannot be tuned so that the items on them are made audible.

During the past four years (in which time all Australian broadcasting stations have made their preliminary tests before entering the field of regular transmission), I have taken particular notice of the receptions by Australian listeners of distant wireless telephony transmissions, and find that the achievements, by a very large percentage were mostly obtained by listeners who used either the standard 3-coil regenerative or the 2-coil (P1) circuit. Of course excellent results were obtained with other circuits and sets, some using as many as 6 and 7 valves, but the majority of the record makers favoured the circuits referred to above.

At the present time with the large number of different types of circuits in use, it is a difficult matter to say which is actually the best hook-up for reliable, distant and clear reception, but as stated above I have never seen a number of reports regarding a particular circuit that could compete with an equal number of reports regarding the straight-out 2 or 3-coil regenerative hook-up for all round reception. For this reason I intend to describe in this article a good reliable set that is capable of obtaining remarkable results, and which employs the straight out P1 circuit.

be fitted with a vernier, and is connected in shunt with the aerial coil. A condenser with a capacity not exceeding .0005mfd. is recommended and is amply large enough. When the rheostats have been turned on and the coils adjusted, this condenser is the only tuning control, which is a desired advantage as one hand can be kept free for "logging."

As will be seen a detector and two audio-frequency stages of amplification are employed, and provision is not made for the use of less than 3 valves. Jacks and switches only tend to increase the ever-present losses, and it is nearly always the case that if you can use all the valves you will do so.

The detector valve's filament supply is regulated by one rheostat (which should be fitted with a vernier control if a soft valve is used), and a second rheostat controls the filament supply to the two amplifying valves.

A jack is used as a means for ready insertion of the loud speaker or head telephone plug. It will be seen that this jack acts as a switch, for the B battery current will not flow to the plate of the last audio valve until the plug (with the contacts in some way connected) is inserted. The B lead from the last audio-frequency transformer could also be connected so that the jack would act as a break, but if this is done the current from the B battery has, of course, to flow through the resistance of the head phones or loud speaker before it reaches the transformer primary winding.

A push-pull switch is employed to break the A battery lead, and when connected as shown in the diagram it also breaks the lead joining the B to the A. When this switch is placed in the off position filament battery supply to all of the valves is cut off, even if the rheostats are left turned on, with the result that the valves will not light. This is a desired feature because should it be necessary to leave the set in a hurry, the mere turning off of this switch will prevent any battery current from being used.

A variable grid-leak with a fairly high maximum resistance should be used to suit the detector valve. The resistance value should be as high as possible to permit the receiver to go into and out of oscillation with a "swish" and not a loud "plop" or "click." A good grid-leak of the right value makes a wonderful difference to most receiving sets. The grid condenser should have a low capacity value, and for most sets a .00025 mfd. type is generally satisfactory.

The B battery voltage to the plate of the detector valve is variable, and should be adjusted for best results. This adjustment is fairly critical for a soft detector valve, but not so when a hard valve is used for detection.

Personally I prefer well made spider-web coils for the tuning inductances, and it is my experience that they are superior to honeycomb coils. These spider-web coils can be made in several ways to suit holder into which they are plugged. A number of ready made plug-in formers are on the market, and these arrangements are entirely suitable for the purpose.

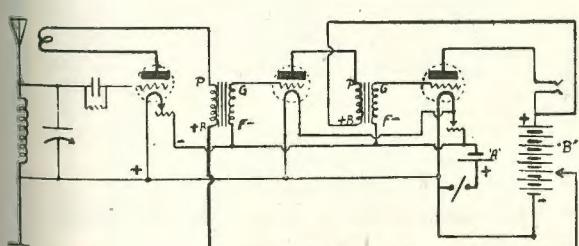


FIG. 1.

In figure 1 the schematic diagram of a 3-valve set is shown. It will be seen that the circuit is perfectly straightforward and does not make use of any part that is not required. The tuning condenser should

It is essential to use a coil holder which has one moveable plug for the tickler (or reaction) coil, thus permitting a variation of coupling between the two coils. If it is desired to mount the coils and coil holder behind the panel, a special type of holder is used, which can be obtained at most progressive radio dealers.

It is as well to state that the P1 circuit is a violent oscillator when too much current is fed back from the tickler or reaction coil to the aerial coil, so great care should be taken to prevent the set from "howling" and thereby causing interference to nearby listeners.

In case some of the newcomers in the radio game may have thought that I have given too much credit to this particular hook-up, a few examples of what has been accomplished with the P1 circuit in Australia during the last few years are given. These examples serve to show what this circuit is capable of doing, and, I think, since they deal with the reception of telephony only, speak for themselves:—The reception early in 1924 by A. E. Wright (of Scarborough) of KGO, Oakland, California, on 2 valves when this station was using 1KW of energy. Incidentally Mr. Wright was one of the first listeners in Australia to hear American broadcasting. The reproduction of Japanese, American, New Zealand, and Australian broadcasting on the loud speaker by several local (Rockhampton) and other enthusiasts, using 2 and 3 valves. The picking up of music and speech from KFI, WGY, KDKA (when on 309 metres), and other U.S.A. stations in 1925, by many users of the P1 circuit.

## A Prominent Engineer

Radio users who are familiar with the famous Emmco radio parts will probably be interested to know something of the company that is responsible for the manufacture of radio products of such indisputable efficiency. Mr. J. Schartl, managing director of the Electricity Meter Manufacturing Company, Limited, is one of the most interesting personalities of the engineering world in Australia to-day.

Born at Vienna, in October, 1884, and educated at that city, he spent 12 years in the largest engineering organisation in Europe, in association with Siemens, Halske, of Vienna, Siemens Bros., at Berlin, A.E.G., and with Siemens, Schuckert, Berlin. He also spent some time at Budapest, and with Ziess and Co., of Jena—manufacturers of the world-famous glasses. In 1911, Mr. Schartl arrived in Australia and was appointed to the Postmaster-General's Department, where he spent two years in the telegraph operating room. Two years later he commenced the business of general engineering, being joined in this by Mr. Schultz, also now a director of the Electricity Meter Manufacturing Company, Ltd. The premises occupied by the partners eventually becoming too small, they moved into larger ones

in Wentworth Avenue, and, two years later, from thence to a larger factory at Darlinghurst.

During the whole of this period, Mr. Schartl was endeavouring to concentrate his engineering ability upon some particular product which could be manufactured here under mass production methods, and which would fulfil a definite need in Australia. Finally he decided upon the electricity meter, which to-day is used in house lighting service right throughout the Commonwealth. It should be remembered that at the time production of the famous Beta watt-hour meter was commenced, £150,000 worth of meters were being imported into the Commonwealth annually.

So, from the company of Schartl and Schultz, has now grown the tremendous organisation known as the Electricity Meter Manufacturing Company, Limited, which gives employment to 500 Australian workers and it has been said by visiting experts, that the system employed in the huge factory premises of the company is the finest and most efficient in Australia—which speaks volumes for the wonderful organising ability of its managing director.

Only last year, Mr. Schartl returned from a nine months' tour of the world, during which he inspected all the big American, British, and European engineering concerns, with a view to perfecting the manufacturing organisation of his own company in Australia. His experience is fully reflected in the efficiency of the factory now turning out Emmco parts.

## OREGON WIRELESS MASTS

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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.

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# 2FC's Novel Contest

Fortune for the Fairest October Bride in N.S.W.

Wedding Gifts Worth £553.

The most beautiful bride in New South Wales in the month of October will receive a wonderful array of costly gifts, the value of which totals £553.

The unique contest has been devised by Farmer's 2FC—broadcasting service, in conjunction with Beard, Watson, Limited, Mrs. Maclurcan of the Wentworth Hotel, Limited, George A. Bond and Co., Limited, W. H. Paling and Co., Limited, Amalgamated Wireless (Australasia) Limited, and Monte Luke.

## SOME OF THE GIFTS.

The splendid collection of gifts which will be awarded to the girl who is adjudged to be the most beautiful October bride, will include:—

Bridal trousseau from Farmer and Co., Ltd., valued at 100 guineas (£105).

Bedroom suite, from Beard, Watson, Ltd., valued at 100 guineas (£105).

Piano from W. H. Paling and Co., Ltd., valued at £100.

Wedding breakfast at the Wentworth Cafe, valued at 75 guineas, for 50 guests, from Mrs. Maclurcan, Wentworth Cafe; floral decorations by Searl's, valued at 25 guineas (£105).

Wireless set, with accessories, complete from Amalgamated Wireless (Australasia), Ltd., valued at £50.

Towels, hosiery, and underwear, from George A. Bond and Co., valued at 30 guineas (£31/10/-).

Three dozen photographs, at 10 guineas a dozen, from Monte Luke (£31/10/-).

Cine-Kodak camera and accessories, from Kodak (Australasia) Pty., Ltd., valued at £25.

Total, £553.

## SOCIAL ENGAGEMENTS.

All the girls who are contemplating marriage are eligible to enter this competition, provided they are prepared, if selected by the judges as the most beautiful competitor to be married in October, and if possible, on October 28. The conditions of the competition have purposely been framed so as to allow her to make the final arrangements for her wedding.

A unique round of social engagements will be awaiting the winner. Already Mrs. Maclurcan is arranging a preliminary dinner dance at the Wentworth Hotel for the group of girls who are selected by the judges from the photographs—the finalists from among whom the most beautiful bride will be chosen.

So it would seem that "Marry in October" is to be the motto of many brides-to-be in New South Wales who aspire to win the group of handsome awards that await the lucky winner.



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"Master Five"**

Prices of Some of the Models

Junior Two, complete ..	£19	10	0
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Senior Five, complete ..	£56	10	0
Master Five, complete	£89	0	0
Grand Seven, complete	£185	0	0

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No matter the size of Set you require, there is a Burginphone suited for your needs. Burginphone Sets are Australian products, and are priced to suit all pockets.

The Burginphone offers you the finest recreation for leisure hours. And offers it with clarity and volume.

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	s. d.
Spitfire Headphones . . . . .	17 6
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Emmco Vernier Dials . . . . .	9 6
Panel Transfers, packet . . . . .	0 9
"Fada" Pt.0004 Condensers . . . . .	9 6

The  
"Crosley Three"  
£7/0/0

Complete with all accessories needed, £13.

These sets are built from best quality material, are tested before leaving the factory, and are guaranteed to work Sydney and Melbourne on the speaker. Each set is supplied with full instructions for operating and photos of battery connections.

Come and See the  
"RICODYNE"

A handsome Five Valve Set for £21. Complete with all accessories £40.

This set, without using a trap of any description, will bring in the South beyond three miles from G.P.O., Brisbane, whilst 4QG is on the air.

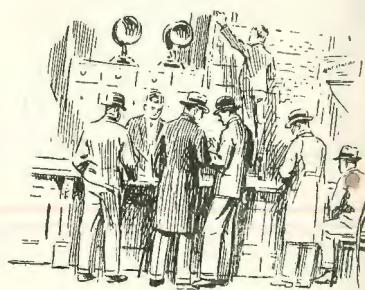
Crystal Sets from 12/6.  
Edison Bell Twin Detector, 5/-.  
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"But you who seek to give and merit fame  
And justly bear a critic's noble name,  
Be sure yourself and your own reach to know  
How far your genius, taste, and learning go."  
—Pope's Essay on Criticism.

3LO and 2BL  
Sound wretchedly to me!  
But neither cause my blood to boil,  
As does your 4QG.

I think you transmit badly  
I hate your tune-in song!!  
Your microphone's defective,  
Your draping must be wrong.

I do not like the squeaks that come  
From all your studio doors  
When clumsy engineers intrude  
And stamp across your floors.

Why should I pay a license  
To hear your workmen cough?  
When your cadet desires to sneeze,  
He surely might switch off.

Your advertisements make me writhe  
Your market prices lie!  
Your aerials—both out of line  
Offend the public eye!

Your land-lines always seem to be  
In state of disrepair.  
Your generator rattles  
When your station's on the air.

I do not like your programmes  
Th' arrangement is all wrong!  
Why should a putrid reading  
Precede a rotten song!

I do not like your tenors  
Your baritones are poor.  
Your banjoists are out of tune.  
Th' accompanist a boor!

Sopranos sound too feeble,  
Contraltos sound too thin.  
Your pianola really wants  
Consigning to a bin!

Your gramophone is faulty  
It's records cheaply bought.  
Your lecturers are dull of wit  
And talk sheer tommyrot!

Your pianists are stiff of wrist  
Your steel guitars, like cats  
Wail in an anguished undertone.  
Your violinists have rats!

I scorn your rash announcer  
Whose knowledge ought to run  
At least to every language  
That exists beneath the sun.

Your dramatists should really stick  
More closely to their text.  
(I hate those horn-rimmed glasses  
Your manager affects!)

I object to Sunday sessions  
I loathe orchestral squeals,  
Despising all those instruments  
Which trip each other's heels.

AS FOR THESE BEDTIME STORIES!  
From first to last they're bad!  
Your Uncle Jim? IS he quite sane?  
For Uncle Ben's QUITE mad!

Miss Brisbane is pathetic  
That Mabel is a blight!  
The Sandman is the worst of all  
And should be shot at sight!

That Pete and Sambo grate upon  
My intellectual ears.  
And Messrs. Murphy, Smith and Co.,  
Reduce my babes to tears!

Broadcasters all! I HATE YOU!  
Therefore I never shall  
Permit you more to call me  
Your "Little Radio Pal!"

Because I've made these small complaints  
You won't chip back at Me!  
I'll burn my set this very night  
And checkmate 4QG!!!

—DOLOROSA DYSPEPSIA.

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EASY TO PLAY



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G. WILLIAMS

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*Read This Letter from the President of the All Clubs' Council*

March, 8th, 1926.

A. McLEOD, Bookseller,  
Elizabeth Street,  
Brisbane.

Dear Sir,

It has been my pleasure to peruse the advance proof of "Wireless," by Messrs. J. W. Robinson and G. Williams.

Wireless experimenters and club members will welcome this book, as it deals with technical subjects in a simple manner, which can be quickly understood.

I would also recommend it to the broadcast listener who seeks information on the transmission and reception of programmes, or the control of his set.

The book is profusely illustrated with circuit diagrams and photographs, and is written for Australian conditions, by two well known Australian radio experts.

In fact, here is a book which every prospective buyer, or owner, of a radio set should possess.

I congratulate the authors, and feel sure their efforts will be appreciated by all wireless enthusiasts.

Yours for radio,

HUBERT KINGTON,  
President, Wooloowin Radio Club.  
Chairman, All Clubs' Council.

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# A Selective Crystal Set

(Prize-winner at Brisbane's recent Radio and Electrical Exhibition).

Sets may come and sets may go—but judging by the number of entries in the various crystal set sections at the recent Radio and Electrical Exhibition, the good old crystal receiver will live for ever in public popularity.

Of course the crystal set has many points in its favour. Firstly it is so amazingly simple and easy to operate; secondly, it is inexpensive to buy and upkeep costs are practically nil; and thirdly, no one can gainsay the fact that the crystal delivers music with greater purity and sweetness than any other known type of receiver.

Under favourable conditions quite a lot can be done with a crystal receiver as regards moderate loud speaker reception and reception over considerable distances.



Figure 1.

The crystal set to be described is designed for selectivity. It was built by Master Ray Connolly, of Brisbane, a lad of 16 years, who told us that the actual construction time did not exceed one hour. The set was built from various odd parts, but this did not detract any value from it, for under test it was found to give splendid results, as regards both selectivity and volume.

Like all crystal sets it is easy to build and is well worth the attempt. The circuit is an unusual one (see figure 2) inasmuch as the first coil and condenser act as a wave trap.

To proceed with the construction of this set it will be necessary to secure two .0005 variable condensers, a crystal detector, three coil mounting, four terminals, spider-web coils, bakelite panel and wire. Now obtain a cigar box (100 size) and remove the lid and

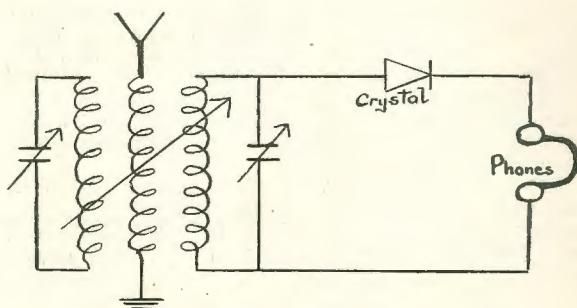


Figure 2

back. Fasten thin strips of wood on the inside of the box so that the bakelite panel and wooden back can be screwed into position. The condensers are mounted evenly on the panel with the crystal detector just above them, while the three-coil holder is screwed on the top of the box after boring the necessary holes to allow the leads to meet the inside wiring. The box can then be mounted on a base of pine and given a coat of varnish, after which the set is ready for wiring.

Bring each of the wires from the first coil to the terminals on the first condenser, thus completing the first circuit. A wire from the aerial terminal is now taken to one lead on the middle coil, while the other lead is wired to the earth terminal. Now take a wire from your third coil on to one terminal of the second condenser and then to the crystal detector. Another wire is connected from the other side of the detector to one phone terminal. The last connection is made from the other lead of the third coil to the free terminal of the second condenser and then to the second phone terminal. Let us offer one last word of advice. Use a good crystal and phones—the subsequent results will more than repay the little extra cost.

## On Wednesday Evenings

Spend a happy as well as an instructive evening with Mr. H. L. Miller, the Wireless Expert.

### LEARN MORSE

easily and quickly under his direction. You will then be able to understand those puzzling dot-and-dash messages you hear from ships and overseas. Fees moderate. Write or call.

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# A Prize Winning Short Wave Receiver

This set carried First Prize in Section 2 (Best Short Wave Receiver) at the recent Radio and Electrical Exhibition.

Circuits for short wave receivers are now almost as numerous as those used for ordinary broadcast wave lengths. A few years ago transmission on short waves, except by a few experimenters, was almost entirely unknown, but nowadays hundreds of amateurs can be heard on the low-wave band—below 100 metres. These transmissions are in practically every case telegraphy.

Experience has shown us that greater distances can be covered on short waves, and two-way communications between America and Australia, and even England and this country are now daily occurrences.

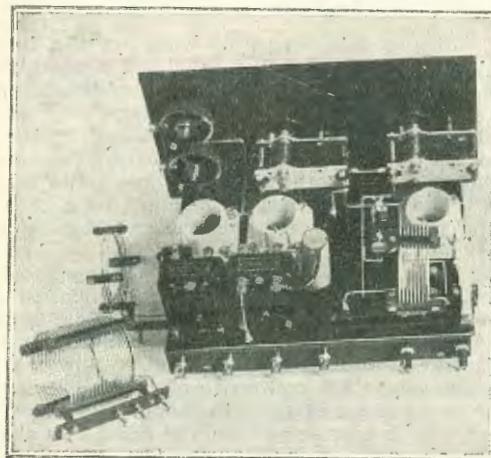


Figure 1

The Australian experimenter has broken many distance-transmission records. Elsewhere in this journal is a description of a low-wave transmitter, built by our well-known Queensland experimenter 4AN. This has the phenomenal low-wave length of 4.73 metres. As there are no other amateurs in this State with a similar instrument, 4AN has been unable to experiment with it to any great degree.

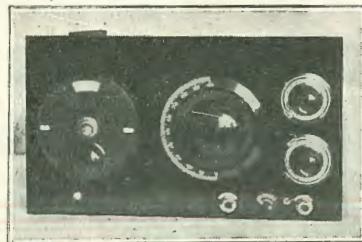


Figure 2

In this article we describe a short wave receiver with a range of from 15 to 150 metres. Three different size coils are used and are shown in Figure 1. The owner, Mr. Graeme Grossett, of South Toowong is to be complimented on the workmanship exhibited in the set, the general appearance being very pleasing. Figure 2 shows the layout of the front panel.

The most important point to remember when building short-wave receivers is to use good component parts. Cheap and inferior parts, although possibly working fairly satisfactory in broadcast receivers, cause losses which must be avoided.

The circuit is shown in Fig. 3, and presents one or two unusual features. The audio frequency stages have not been shown, as they are just the usual wiring. It is possible with this circuit, and proper proportioning of the constants, to obtain a condition wherein the regeneration control varies only slightly with frequency, thus allowing a single setting of the feedback control to cover a fairly wide band of frequencies. Thus the receiver has practically only one control, which allows one hand to be free for logging, etc.

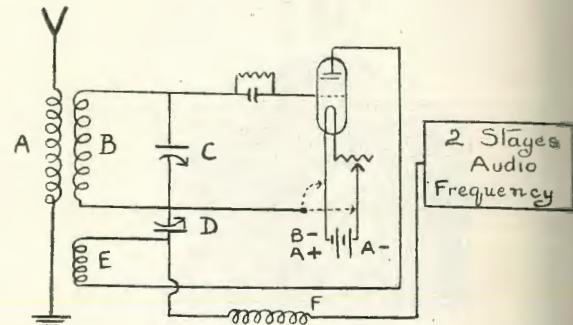


FIG. 3

In Fig. 3, A is the aerial coil coupled to B, which, with it, tuning condenser C constitutes the tuned grid circuit. Closely coupled to coil B is the plate feedback inductance. This is placed at the filament end of coil B, and is connected to the plate at one end, and to the filament circuit at the other end through the condenser D, which acts as a regeneration control. A DC path is provided for the plate current through the B battery by feeding the output circuit through the radio frequency choke coil to the connection between condenser D and the inductance E.

As will be seen in Fig 1, plug-in coils are used, the mounting and base arrangement of which can no doubt be understood from the photograph. The single isolated plug shown at one end is the grid terminal, so placed that its capacity to the others is at a minimum. The secondary coils B are wound with No. 18 bare copper wire, spaced its diameter. They are 3 inches in diameter, the largest having

19 turns, the next 8 turns, and the smallest 3 turns. The plate coils E are made of slightly smaller diameter, with a small size of cotton-covered wire, and slipped inside the coils B, and glued in place at the filament end. They are respectively 6, 4, and 2 turns. The polarity of the windings must be correct, so that the feedback is in the right direction.

The primary coil A consists of ten turns of No. 24 DCC wire, and mounted on the plug in base at the filament end of the grid coil B, and can be adjusted at an angle which gives the correct coupling for the aerial used. As a lesser degree of coupling is desirable at the higher frequencies, the coils are mounted so that the smaller sizes are automatically placed further away from the primary, as they are plugged in. The value of condenser C is .0005, and condenser D .0003.

Time and patience are necessary to obtain the best value of the grid condenser grid leak and grid return. The smallest capacity possible on the highest resistance leak should be used, provided howling can be avoided. It will be noticed that a variable return between A positive and A negative is used, and is varied when making the above adjustments. The radio frequency choke coil should be of low distributed capacity, and may be made by winding 200 turns of very fine DSC wire (about 36 or 40 g.) on a 1-inch tube. A good slow-motion dial is used on the main tuning control.

## Wireless Telephone Services at Lighthouses

The Commonwealth Lighthouse Service recently decided to have wireless telephone sets installed at several lighthouses in Bass Strait, whereby the isolation in which keepers of these lighthouses are placed will be broken down, and the men there will be enabled to communicate with the land and with the remainder of the service.

At the present time communication is maintained between some of the lighthouses and the land by means of short submarine cables and land line telephony. The expense of laying cables and the limitation of the length of cable over which telephonic conversation may be conducted has prevented the provision of services to all lighthouses. As a result the keepers of those posts have hitherto been entirely cut off from telegraphic communication with the land.

Wireless telephony is to solve the difficulty, and it is proposed shortly to connect the lighthouses at Clifly Island and Deal Island, Bass Strait, with the mainland by wireless telephony.

A wireless telephone transmitter and receiver will be installed in each of these lighthouses, and a third unit will be provided at the lighthouses at Wilson's Promontory, which also has a land line

service. Thus, both the Clifly and Deal lighthouses will be able to communicate with the mainland through the Wilson's Promontory lighthouse. The distances to Clifly Island and Deal Island from Wilson's Promontory are respectively 17 and 49 miles.

The necessary wireless equipment has been supplied by Amalgamated Wireless (Australasia), Ltd. It is of Australian design and manufacture, and will be similar to the wireless telephone equipment which has recently been used with great success on trawlers operating between Sydney and the South Coast of New South Wales. Each transmitter will have a power unit of 250 watts, and the current necessary to operate it will be produced by a petrol-driven generating set. The wireless telephone sets are in Melbourne and will be taken to the lighthouses in the next steamer, and one of the Amalgamated Wireless Company's engineers will proceed on the same vessel to install and test the stations.

For some time wireless telephony has been utilised in lighthouse work in Great Britain, but this is the first attempt in Australia to utilise it in this connection.

### 4QG HEARD AFAR.

The director of the station has received a letter from Mr. J. Moskovita, of San Pedro, California, stating that he regularly listens in to Station 4QG. Mr. Moskovita enclosed in his letter a list of items heard on certain nights, and examination of the official log at 4QG confirms his reception.



### Logging Them All!

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"AENOLA"

Twelve  
Month's  
Unconditional  
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Cheapest Prices — Best Parts Used

#### 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.

Demonstrations and Installations Free

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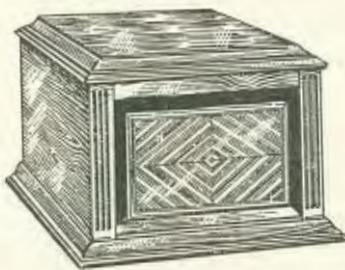
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## The Incomparable Brown in Seven Superb Models

Now that Broadcasting has awakened such an intense national interest, it is only natural to find that Loud Speakers, in common with many other commodities, Radio or otherwise, must be produced in a variety of types at prices that will be within the reach of all. It is for this reason, therefore, that there are now available seven superb models of Brown Loud Speakers.

Of all the Loud Speakers on the market to-day, the Brown is unique, because, by a brilliant application of an entirely original principle, it achieves results which can be obtained in no other speaker. Brown principles of design and construction can be found only in Brown Loud Speakers. The famous tuned reed mechanism, which permits the use of a supersensitive cone-shaped aluminium diaphragm as thin as paper, is responsible for a tonal purity and mellowness which must be heard to be fully appreciated.

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138 Murray St., Perth.

## Whispers from Maoriland

(By Our Special Correspondent.)

If the trade barometer is to be taken as an indication (and it is usually a very good one), things are booming in the wireless world in New Zealand. With the advent of our first really good broadcasting station at Auckland comes a strong demand for sets and still more sets. I would not confess that we are at all lazy over this way, but we certainly do not appear to be of a mechanical turn of mind, for local dealers tell me that the demand is for ready-made sets rather than for the well-known kits. Good business speaks for itself and many of our most conservative firms are now proudly displaying their signs, "Licensed Radio Dealer," while on the "road" one frequently meets the representative of English, American and Australian wholesale radio houses. Even so the demand still seems to greatly exceed the supply.

The Post and Telegraph Department here have issued a circular letter to wireless licensees dealing with "Interference to broadcast reception caused by radiating receivers." The letter gives the requirements of the regulations governing broadcasting and listening-in, and concludes by briefly setting forth the contributing factors to the objectionable methods now being too freely employed in this country. In the main these factors consist of: (a) The use of prohibited circuits; (b) improper tuning of circuits employing reaction, and, when tuned, leaving the receiving circuit in an oscillating and radiating condition, instead of reducing reaction or filament brilliancy; and (c) use of circuits of the Superheterodyne type with other than a loop aerial. The Department is to be complimented on the step taken and for bringing under the notice of licensees the subject of radio-interference so that they may take immediate steps to ensure that they are not transgressing in the manner indicated.

The Wellington Public Hospital will shortly have a really tip-top receiving set, for in response to the Amateur Radio Society's appeal the citizens of the capital city have given in their usual liberal manner. A sum in the vicinity of £2000 is required but this amount will do the thing properly, and although it may appear to be large, it would have been false economy to have installed a cheaper set. In the first place it was intended that the installation should be for the entertainment of patients and nurses, but since the appeal was launched it has been pointed out that many leading doctors go so far as to attribute curative powers to wireless. No doubt this latter fact has helped to swell the fund considerably. Patients, who are sufficiently well, will be supplied with head phones and many a pain-exhausted body will find a soothing effect in the knowledge of once more being able to take part in some sort of human enjoyment.

It has been suggested in semi-official quarters that a Radio Listeners' League should be formed in this Dominion along the lines of the one already existing

in Melbourne. We have in almost every centre amateur radio societies, and these organisations are to be applauded for the good work they have done for their members, but it must be remembered that their influence barely extends from out their own immediate circle. Broadcasting, so far as New Zealand is concerned, has been sadly neglected, and although things are now much better than they were previously, a great deal still remains to be done. The main object of such a league would, therefore, be to see that the listener-in gets the square deal to which he is entitled. The league would not necessarily be antagonistic to the broadcasters, on the contrary, it could be of material assistance in the selection of programmes, artists, etc., and I am sure that advice and suggestions in this direction would be appreciated by the powers that be.

With the editor's permission I will now divert from the literary to the commercial aspect of your magazine. New Zealand is practically a babe-in-arms so far as broadcasting is concerned, and despite the fact that amateur installations are spreading from North Cape to the Bluff, those mostly concerned in supplying the necessary equipments appear to ape Rip Van Winkle. I would suggest to all your wireless dealers that they prospect New Zealand through the columns of "The Queensland Radio News," which now has a place in the somewhat limited libraries of those who are first entering into the realms of wireless listening-in.

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# Notes from 4QG

## Past and Future Events.

One of the main attractions at the recent Brisbane Radio and Electrical Exhibition was the demonstration studio of 4QG, the big northern wireless station.

Portion of the stage was draped and furnished to represent the studios at 4QG, the front being left open so that the performances could be witnessed by those in the Exhibition Hall.

Many were the comments received at the station regarding the excellent transmission from the hall, and the general opinion was that the clarity of both speech and music was remarkable.

A very novel entertainment is to be provided by station 4QG on Friday, September 17th, this taking the form of a State-wide dance. A special dance orchestra has been engaged and will play at 4QG from 8.0 p.m. until midnight. Considerable publicity has been given to the entertainment, with the result that wireless dances for that night have been arranged in all parts of the State. Quite a number of old time dances have been included in the programme, and the announcer at 4QG will act as M.C. for the evening.

A new feature on the programme of 4QG will be the Hotel Carlton Orchestra. Arrangements have now been completed for the linking up of the Hotel Carlton with the station, and lunch hour music as well as afternoon tea music will shortly be relayed.

On Friday afternoon, September 10th, a most novel "stunt" transmission will be "put over" by station 4QG. On that date Mr. F. W. Stevens (chief engineer) will climb one of the towers and will broadcast a description of Brisbane and districts from the cross arm.

The towers are erected on the roof of the State Insurance Building and are 100 feet high. The building itself is 124 feet high, so that the cross arm from which the description will be broadcast is 224 feet above the pavement. Brisbane is a city of hills, and from the tower heads at 4QG an interesting panoramic view is obtainable.

Mr. Stevens will find in it much to describe, and listeners should greatly appreciate the novel stunt.

Lovers of good music always look forward with delight to the concerts which are relayed once every month from the studio of Mr. Luis Amadeo Pares, in Little Roma Street, Brisbane. Mr. Pares on the third Saturday night of each month organises for 4QG a high-class recital. No pains whatever are spared to make these concerts successful, and talent of no mean order is provided in order to entertain the public.

If any proof was needed of the popularity of the bedtime story sessions from station 4QG, it was forthcoming at the recent Radio Electrical Exhibition in Brisbane.

On the Saturday night when the bedtime stories were provided in the demonstration studio, enthusiastic listeners literally packed the hall. There was no space at all available on the floors and public galleries were also filled to overflowing. So great in fact was the crowd that the services of the police were required to prevent the public from surging right to the front of the stage and completely obscuring the view of those further back in the hall.

Regular listeners to station 4QG, Brisbane, will regret to learn that Miss Lottie Richter (soprano), who is well known as a soloist, and also as the organiser of classical evenings from the station, has been seriously ill and has been compelled to cancel all her engagements.

"Little Miss Brisbane," who entertains the children from station 4QG on Wednesday evenings, has lately embarked on a scheme calculated to endeavour to make the kiddies write better letters.

Each Wednesday evening she reads out in full the three best letters which reached her during the week.

The manager of Metro Goldwyn Films Ltd., who is a regular listener to 4QG, was so impressed with the novelty of the idea that some days ago he presented a beautifully framed photo of Jacky Coogan to the station, the gift being intended as a present to the boy or girl writing the best letter to "Little Miss Brisbane."

Station 4QG's land line to the Exhibition Concert Hall was in perfect order during the whole of the progress of Brisbane's first Radio and Electrical Exhibition, and the quality of the items relayed from the demonstration studio have drawn forth unanimous expressions of approval from all parts of the Commonwealth.



A Papuan Harbour Scene.

Since the earliest days of Papuan history, Samarai and Port Moresby have been the centres of attraction, the former for the Eastern division, and the latter for the Central and Western and Gulf divisions.

Traders and missionaries from the outlying stations make periodical visits to these ports to collect supplies of provisions and mail, and in the early stages of the war no communication other than by boat could be made with the outside world. Eventually wireless telegraph stations were opened for public business at these two centres, and the movements of the supply ship could be telegraphed from the Commonwealth. Traders and others could then come into the two centres and there await the arrival of the steamer. The one disadvantage lay in the fact that they had to come into either Moresby or Samaral before they could be acquainted with the definite time of arrival of the steamer, and that may mean waiting a week for her to put in an appearance.

Lately, however, the Queensland Radio Service has included in its programme the movements of the island steamers, and those who live so far from civilisation can now sit at home and by listening to 4QG keep in touch with the outside world and arrange their trip to coincide with the arrival of the steamer from South.

So popular are the mouth organ solos provided during the children's session at 4QG by "The Sandman," that some selections by him have been included in the regular programme for the benefit of the "big little listeners."

The broadcasting of musical programmes often bring to light certain associations connected with them. And it is interesting to know that on September 13th, the concert solo "At Break of Day," written by Mr. J. Ord, Hume, the famous English band conductor, will be put on the air by 4QG.

Mr. Hume was some years ago brought to Australia to adjudicate at the band contests held at Ballarat, and his work will lose nothing in its rendering by Mr. J. W. Burgemeister, whose name as a cornet soloist has become so favourably known throughout the State.

## State Wide Dance, 17th Sept.

### Novelty from Station 4QG.

Some little time ago a representative of the Wynnum Radio Club visited station 4QG and suggested that perhaps a State-wide radio dance would prove a novelty and would be appreciated by large numbers of listeners.

He suggested that on a certain night station 4QG should place a full dance orchestra in its studio and broadcast dance music from 8 o'clock until midnight. The intention of the station to do this should be announced some time previously and arrangements could then be made by radio clubs and private individuals for the holding of dances on that night, the music being supplied by wireless from 4QG.

The idea was welcomed at station 4QG and action was immediately taken to put the scheme into operation.

All arrangements have now been completed, and on Friday, September 17th, a monster State-wide dance will be held from 8 o'clock until midnight.

The special Savoy Dance Orchestra will supply the music, and the announcer at station 4QG (Mr. C. V. Woodland) will act as M.C. for the evening.

Already quite a number of public dances have been arranged, invitations have been printed and sent out, and doubtless between now and September 17th numerous private parties will be organised.

For the benefit of secretaries of radio clubs, secretaries of wireless dances, and also those who are organising private parties, we are setting out below the programme for the evening.

Each dance will occupy ten minutes, and there will be a five minutes' interval between each.

A number of vocal items and week-end road information will be interspersed between items.

### PROGRAMME.

8. 0 p.m.—Fox Trot .....
8.15 p.m.—One Step .....
8.30 p.m.—Fox Trot .....
8.45 p.m.—Jazz Waltz .....
9. 0 p.m.—Schottische .....
9.15 p.m.—Charleston .....
9.30 p.m.—One Step .....
9.45 p.m.—One Step .....
10. 0 p.m.—Lancers .....
10.15 p.m.—Jazz Waltz .....
10.30 p.m.—Fox Trot .....
10.45 p.m.—One Step .....
11. 0 p.m.—Old Time Waltz .....
11.15 p.m.—Fox Trot .....
11.30 p.m.—Fox Trot .....
11.45 p.m.—Medley .....
12. 0—Close down.

Here's the programme for your convenience.

## DANCE Programmes!

For 4QG's State-  
Wide Dance

We have designed a Special Dance Programme for 4QG's State-wide Dance, and those organising dances for this occasion would be well advised to let us print their programmes for them at a considerable saving. Four page programmes with the name of your club and hall nicely let into the cover design printed on good card of pleasing shades at the following prices:—

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# So This is Brisbane!



Those of us who have seen Brisbane from many angles and points of vantage will find in the above photographs (taken by Mr. F. W. Stevens, 4QG's chief engineer) some new and interesting glimpses of our wonderful city.

No. 1 depicts one of the lofty aerial masts as seen from the roof of the State Insurance Building. The small figure seen standing on the span at the head of the mast is Mr. Stevens.

No. 2 lends an atmosphere of "little old New York" to our city. The camera was facing north and the view takes in the main section of the city. The big edifice to the right of the aerial tower is that well-known land mark, the T and G Building.

Mr. Stevens evidently had to "change towers" to take No. 3, for this view is facing in the opposite direction to that of No. 2, and the southern tower

is seen in the foreground. The view takes in the Executive Buildings, the river, and portion of the fine wharfing accommodation at South Brisbane.

No. 4 is an excellent view of Victoria Bridge and portion of South Brisbane.

How interesting are these progressive pictures of 4QG's construction! No. 5 shows the first aerial tower in its early stage of erection, and the station under construction.

The view numbered 6 is one of George Street, facing west and looking towards the railway gates. The Brisbane River winding its course around Milton Reach is also shown.

Altogether these form as interesting a group of photos as one could wish to see, and we are indebted to Mr. Stevens for his courtesy in making them available to us.

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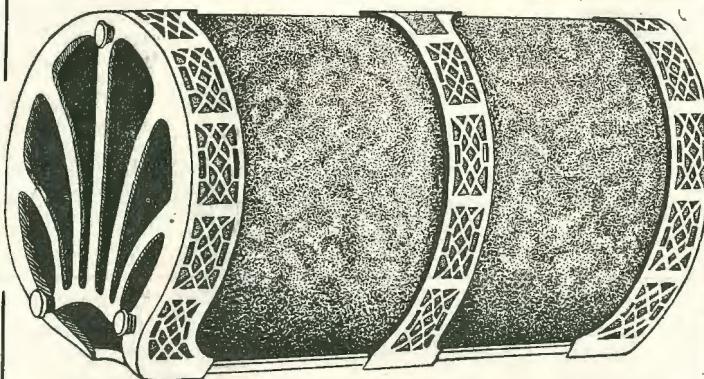
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## A Novel Experiment at 4QG

An interesting experiment was carried out recently at Station 4QG, Brisbane. While the Brisbane Federal Band was playing in the studio a receiving set was operated in one of the offices and the band music was received by wireless. It was amplified and then, by the use of a dictaphone, a gramaphone record was made. When the band had finished playing, the record was taken into the studio, played, and then transmitted by wireless. The photograph shows the experiment being conducted. On the table is seen the wave meter, a portable W.E. amplifier and the dictaphone.

Mr. F. W. Stevens (chief engineer, 4QG) is on the left, Mr. Barkess (Dictaphone Co.) in the centre, and Mr. J. W. Robinson (director, 4QG) on the right.

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The programmes are arranged from Monday to Sunday. Subscribers' copies are lodged at the G.P.O., Brisbane each Friday before 11 a.m. in time to reach all districts. Thus, country subscribers can enjoy the full week's programme.

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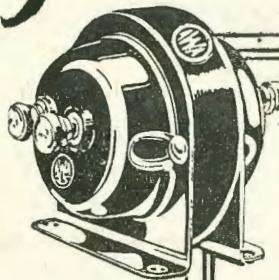
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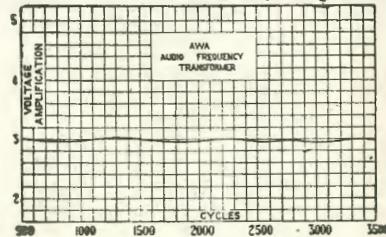
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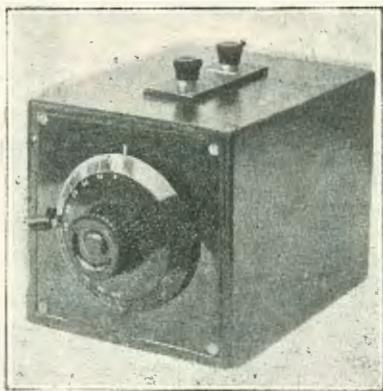
# The Prize-Winning Wave Traps

## At the Radio and Electrical Exhibition

In connection with amateur competitions held at the Radio and Electrical Exhibition, the "Queensland Radio News" added a section and donated the prizes for the most effective wave trap. Altogether nine entries were received, and each one was subjected to a severe and thorough test by the adjudicator (Mr. W. Monkhouse, A.M.I.E.E., A.M.I.E.).

### The First-Prize Winner

The trap awarded first prize was found to give very fine results. Southern stations were brought in easily and quickly without any appreciable loss of volume. It was found that the trap yielded the same result on various sets and various aerials—proving that aerial capacity did not interfere with its performance in any way. We reproduce the photo of the trap below.



We have made arrangements with Mr. L. Whitlam, the designer and builder, to write an article on the most interesting subject of "wave traps." This article will appear in our next issue, and will contain full constructional details of the prize-winning wave trap, and will explain the results achieved with other and more elaborate traps experimented with by Mr. Whitlam, who has made a close study of the subject.

#### DISTANT REPORTS ON 4QG'S RECEPTION.

From Andreفسky (Alaska), Mr. G. A. Shepherd has also reported clear and consistent reception.

Mr. Donald Wright, of Terminus Island, heard the Brisbane Austral Choir singing, while Mr. R. D. Kelsey, of Valdez (Alaska), has reported hearing the Lyric Male Quartette render items from the Studio of 4QG.

### "My Cheap and Nasty Wave-Trap."

**Second Prize Winner in the Wave Trap Section at the Radio and Electrical Exhibition.**

(By C. J. Grant, "Prescorres.")

From editors, income tax, wireless exhibitions, and the Queensland Radio News—Good Lord, deliver us!

Not that the above is original—far be it from me to write anything that is not frankly plagiarised from earlier sources—but it is quite apt.

Anyway this is how it came about.

Last week I was quietly resting after my arduous toil, enjoying Uncle Ben's box of strawberries which he was so very kindly holding up to the microphone for my delectation. Oh yes, I listen to the children's hour nowadays as I used to listen to the sweet harmonious (IMI) warbling of Pinkenba's spark in the earlier part of last century before Mr. Coffy turned the fire hose on to it, and with the aid of his pet bottles, put the VIB that was into the limbo of things forgotten and created the VIB that is. This all sounds very circumlocutory and involved but never mind, it's only put in for the sake of scenic effect.

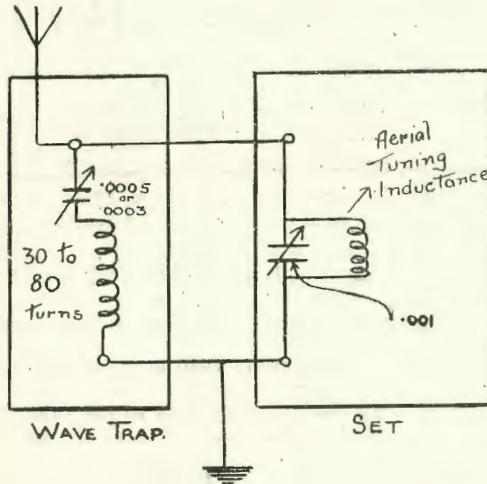
Now to return to my rest. That confounded instrument which was so ably explained last issue by Mr. Broome, and which is perched precariously on the wall outside my-er-radio shack started to call me with its strident bell which, in my opinion, would quite suitably fill the bill in the tower of the local fire brigade. Nowadays I often find that the instru-

ment gives a sort of apologetic cough before really settling down to business, which gives me time to grab a pillow and smother it. But occasionally the darned thing beats me—it whispered its melodious vapourings in my little ear about midnight a few nights ago, and it has been quietly chuckling to itself ever since. I know it has.

But this time, it was the "Queensland Radio News" at the other end of the line. And the afore-said Q.R.N.—fitting letters, hi! hi!—qrn-ed my innocent slumbers with a stand and deliver sort of request. It wanted an article on my wave-trap.

I told the editor to hold the line while I counted the turns. I find I have 61 1-3 (mark the 1-3, its of particular importance!) turns of 30 s.w.g. s.c wire on a Grodan Former, which is screwed down by two brass terminals, to the lid of a cigar box. My junk box produced an old Ormond condenser (.0003 with vernier) which fitted into the side of the box. And there you are—there's the whole outfit. And the circuit? Just that straight out job so beloved by 4KY—say, gang, he's sure got the best job in wave

traps I've ever seen—which is startling in its simplicity and in its results. I was startled to get a prize, oh yes! So was the Wooloowin Club. They think its a good joke—at least I don't know if they think the wave trap is the joke or if I am, but I'll give them the benefit of the doubt. Anyhow here's the circuit—if you can get it to work you're a better man than I am.



By the way, don't forget the size of your coil will vary according to your aerial length, and will lie probably between 30 and 80 turns—I cannot be more definite than that—so try it out for yourselves.

[Note.—We really think it is impossible for "Prescorres" to write in serious vein. Despite his playful remarks the wave trap really did work excellently.—Editor.]

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(The Editor, "The Queensland Radio News,"  
Brisbane).

Dear Sir,—While I appreciate the honour conferred on me by your sub-title to the description of 4AN which was published in the August issue, I feel that it is only fair to point out that the impression conveyed was not strictly accurate.

Although any station which has been active for the number of years during which 4AN has been on the air must, of necessity, become fairly well known, several Southern amateurs—notably Charles D. MacLurcan, of 2CM—have been in the game a good deal longer than have I.

If, therefore, the sub-title referred had read: "One of Australia's best-known amateur stations," I think it would have been more nearly correct.

With best wishes for continued success.

Cordially yours,

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Conducted by Uncle Ben, of Station 4QG, Brisbane.

To all my little sweethearts,—

Well, since I last wrote to you lots of wonderful things have taken place, most important of all being the Radio Exhibition. I enjoyed the most wonderful week in all my life out there, for I met hundreds and hundreds of my little friends.

Of course there are thousands of others who could not come to see me—but never mind, I think of you just the same, and I am always glad to talk to you through 4QG.

Now, I suppose you all want to know who won the competition. Well, I'm afraid I'll have to apologise for making the picture puzzle so difficult. You know an artist friend of mine drew it for me, and when he showed me the idea he quickly put the pieces together and it looked so simple. That was because he drew it and knew what it was. When the "Radio News" came out, however, and I tried to do it—I found it took me a long time to work it out.

It was really too hard for you, sweethearts, and I am very sorry. I am sure your little heads must have ached trying to get the pieces to fit. Many of you have written to me telling me how hard you have tried—but never mind, I have given you an easy one this month to make up for the last one.

I received 475 attempts for the other competition—guessing my car number. And what do you think? 53 guessed the right number! Now, I'm a bit suspicious about that. I think my kookaburra must have been telling tales out of school—I'll have to keep him caged up in future. The first and second prizes were awarded to the first two correct answers opened on the 20th of August.

Now with regard to the "Farmer Grey" verse competition I have been holding from 4QG on Tuesday nights. Over 280 verses were received and such a lot of clever attempts were among them. Oh dear, I wish I had a lot of money, and then I'd give every boy and girl a prize. Anyway, I want to thank every boy and girl who sent in a verse, and, of course, offer my congratulations to the winners.

Don't forget to try to win the picture puzzle competition which appears on this page. Cut out the pieces, paste them together, and see what a funny picture they make.

Good-bye, little sweethearts, cheerio until next month.—Yours very fondly,

UNCLE BEN.

#### NUMBER OF UNCLE BEN'S CAR.

Correct Answer—Q 46201

First Prize.—SYLVIE ACTON, Quarantine Station, Lytton.  
Second Prize.—CLARENCE YOUNG, James Street, Newmarket.

FARMER GREY COMPETITION.  
First Prize—BILL, and MOIRA RYAN, Locke Street, New Farm, Brisbane.  
Second Prize—ERIC and TOM LAKE, Elara Street, Wynnum South.

#### PICTURE PUZZLE.



Cut out the above pieces, paste them together on Card or paper, and if you are correct you will see Mabel's dog, "Terror," taking a piece out of Uncle Ben's trousers. "Basil," the cat, is also in the picture.

#### PRIZES.

First Prize—Framed Photograph of Uncle Ben.  
Second Prize—Unframed Photograph of Uncle Ben

#### SOLUTION TO LAST MONTH'S PICTURE PUZZLE.



It doesn't look so hard—now—does it?



SHE KISSED SAMBO!

LITTLE RUBY McCARTHY (11 years), who won the Singing Competition at the Radio Show.

On Saturday night (August 14th), when Uncle Ben was telling the stories at the Radio Show she came up on to the stage and kissed Sambo and carried away some of Sambo's dusky complexion. Thousands were amused at her childish pranks.



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# STATION 4QG

## Synopsis of Programmes for the Month of September

The following schedule sets out the principal programme attractions to be broadcast from Station 4QG during the month of September.

Wednesday, September 1.—Popular Concert—The Savoy Orchestra.  
 Thursday, September 2.—St. Mary's Choir.  
 Friday, September 3.—A Welsh Night. ....  
 Saturday, September 4.—Gaiety Theatre, Toowong.  
 Sunday, September 5.—Ann Street Presbyterian Church (morning and evening). Federal Band and Greater Brisbane Concert Band.  
 Monday, September 6.—Organ Recital by City Organist.  
 Tuesday, September 7.—The Brisbane Apollo Club—The Excelsior Band.  
 Wednesday, September 8.—Popular Concert.  
 Thursday, September 9.—St. Stephen's Cathedral Choir—Mrs. Bell's Operatic Party.  
 Friday, September 10.—The Savoy Orchestra.  
 Saturday, September 11.—Gaiety Theatre, Toowong.  
 Sunday, September 12.—All Saints Church (morning and evening). The Excelsior Band, Greater Brisbane Concert Band.  
 Monday, September 13.—The Clarwin Orchestra.  
 Tuesday, September 14.—The Brisbane Apollo Club.  
 Wednesday, September 15.—Popular Concert.  
 Thursday, September 16.—Holy Cross Choir.  
 Friday, September 17.—State Wide Dance.  
 Saturday, September 18.—Special Violin Recital.  
 Sunday, September 19.—St. Stephen's Cathedral (morning and evening). The Federal Band, The Greater Brisbane Concert Band.  
 Monday, September 20.—The Federal Band.

Tuesday, September 21.—The Brisbane Apollo Club.  
 Wednesday, September 22.—Students' Concert.  
 Thursday, September 23.—Mary Immaculate Choir.  
 Friday, September 24.—Band Recital, Studio Concert.  
 Saturday, September 25.—Studio Concert—Gaiety Theatre—Lennon's Ballroom.  
 Sunday, September 26.—St. Andrew's Church (morning and evening). Citizen's Band, Greater Brisbane Band.  
 Monday, September 27.—Crystal Palace Orchestra.  
 Tuesday, September 28.—The Ithaca Orchestral Society.  
 Wednesday, September 29.—Special Concert Party—The Pacific Trio.  
 Thursday, September 30.—The Lyric Male Quartette.

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# With the Hams

Nothing very startling to report on ham activities for the last month, due, mainly, to poor conditions and the like. One or two stations have faded out of the firmament and several new ones have popped up to take their places.

4CM has been looking for fresh fields to conquer, so has rigged up a 20-metre transmitter on which he has been QSO J-1AA (Iwatsuki, Japan) several times. Very fine big OM!. He reports a QSO with SK2 Borneo on 36 metres. SK2 gives his QRA as Gray, Kuching, Sarawak, Borneo.

4RB has also worked SK2 and another Borneo ham, SK1. The latter giving his QRA—Barnes, Kuching, Sarawak. Both have plenty of punch and good D.C. notes. 4RB is now awaiting the arrival of another tube. The old "Z2" died a sudden death due to slight fracture of the filament.

4CG improved his note considerably by putting in a rectifier. He has stuck a T.15 tube into the transmitter, but I don't think is having as much success with it as he had with the 201A. I heard him trying a little fone not so long back, modulation was O.K., but the hum was nearly as bad as ——, well I won't say it.

4AZ has just received a card from England, which

checking O.K. with his log, reports his sigs R4 F.B. OM.—Congrats! Despite of this encouragement "AZ" seems to have forsaken the ole xmitter and taken to aeronautics instead. It's quite an easy matter to mix 'em both anyway, so we expect to see him in the near future wagging a joystick in one hand, "unwinding the gas" with the other and pounding the key between his teeth.

Haven't heard much from the "out-town" boys lately. 4DO has evidently had a temporary close down. 4HR and a few of the others seem to be at a standstill. The good DX-ing season should be here again towards the end of this month, so c'mon OM's, harness up a couple of 201A's in the xmitter and show 'em that the "fours" can work any continent on the blankey globe without the aid of any half-kilowatt bottles with young power houses attached thereto.

4WI is now on the air and in regular operation every Tuesday on 250 metres. The morse instruction should prove invaluable to all "intending hams," going for their A.O. certificate. A proposed "Information" scheme may be working shortly; as in the case of any listener requiring information on the code, statutory rules and regulations, or anything pertaining to the A.O.C. exams, he will be able to hear his question answered over the air.

We learn that several of the applicants in the recent amateur operator's exam. were successful. All of the chaps seem very enthusiastic and the majority have everything set to hit the air as soon as the "ticket" arrives. A bit of brotherly advice on the subject to any who may require it:—(1) Use simple circuits, simple layout, simple everything so that you can follow out all wiring at a glance. (2) Use



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C —	Special	13/6	
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plenty of common sense. These are two great commandments to which everything else may be boiled down. If in doubt or trouble don't be afraid to knock up your nearest ham, you will always find him willing to lend a hand. Try always to keep on good terms with close up B.C.L.'s by using as smooth H.T. supply as possible. Remember that broadcast services continue until midnight, and that probably over 50 per cent. of listeners-in, not always through their own faults, possess single circuit receivers. Now, by using raw A.C. on 80 metres you will raise the very dicken's in all such bloopoer contraptions within a radius of at least half a mile of your station. By using the 40 metre wave band or lower, interference will be reduced to a minimum with the exception of a misplaced major harmonic which may happen to fall within the broadcaster's wave limit. If broadcast listeners could but only learn the advantages of a coupled circuit tuner, our interference problems, with perhaps exception of the abovementioned harmonics, would be ended. To try to convince the average B.C.L. that his outfit is obsolete is more than less courting disaster—particularly if he happens to be bigger than you are!

A number of the Australian air force and naval stations are often heard on 35 metres. "Among those present" generally include V1S, N3S, 5KN, 9DR, 9SA, 9WJ, and VKP, all of them are exceptionally strong here, 9WJ "registers" at about strength R9! I have heard them all in QSO with amateurs of other countries. They certainly give a good impression of Australian defence, especially when we hear one like 5KN beefing out his QRA to a foreigner as—Royal Australian Air Force, section 1, Point Cook, Victoria. When are some of the

Queensland naval and aircraft (?) bases going to get on the air, anyway?

I have heard some remarkably good fone on 43 metres lately emanating from Aussie—6AG at Perth. Quality and modulation are almost perfect, in fact I have heard no better from any A class B.C. station. His CW note is of a good D.C. character and the fone, at all times is strong enough for the loud speaker on two tubes! The only fault, unfortunately, is the very bad swinging of the wave. Crystal control should remedy this, but in any case the success attained so far is certainly worthy of great credit.

The usual host of overseas stations continue to percolate into our "head-cans." There are a few Argentinians, Brazilians, Belgians, and the usual bunch of English and Frenchmen heard during the afternoons. A station with a hefty signal signing Ei-PK1 was the only uncommon bird heard. His QRA turns out to be De Groot, of Tjimaki, Java.

J-3KK (ex-1KK), of Kobe, Japan has been heard trying various fone tests with a few other Japs, and Yanks. His speech was nearly always badly mutilated by QRN here. Judging by an occasional word caught now and again, the op. seemed to be quite fluent with his English "and how she is spoke."

The England-Australia Beam station is scheduled to open for traffic at about the middle of this month. The wave length adopted is reported to be 30 metres! If this report be accurate we can only "wait and see" what the attitude of the Federal Government to the continued use of the amateur wave bands around this QRH will be. They must be broadminded on all accounts, as to see our best operating band "go west" would be nothing short of a calamity.

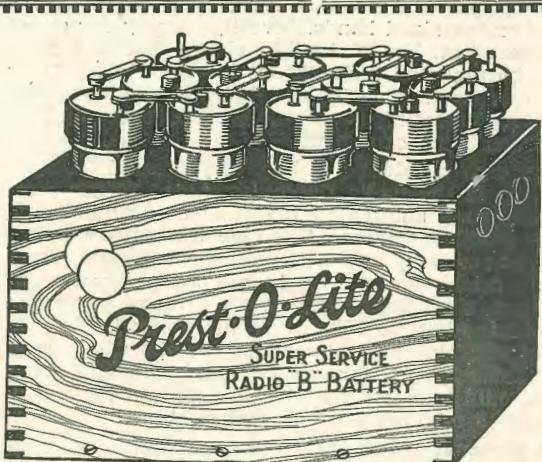
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# Club Activities

## RADIO CLUBS OF QUEENSLAND.

**CAIRNS AND DISTRICT.**—Secretary, Mr. Tarbit, c/o Mr. Les Fitzsimmons, Cairns.  
**EASTERN SUBURBS.**—Secretary, A. E. Newnham, Logan Road, Fiveways, Woolloongabba, Brisbane.  
**GRACEVILLE.**—Secretary, S. W. Keeping, Ette Street, Sherwood.  
**IPSWICH.**—Secretary, S. J. Aspinall, Brisbane Street, Ipswich  
**TOOMBUL.**—Secretary, T. Starkie, Sandgate Road, Nundah.  
**WIRELESS INSTITUTE (Queensland Division).**—Secretary, O. R. C. Runge, c/o Finney, Isles, Ltd., Brisbane  
**WOOLOOWIN.**—Secretary, H. A. Jear, Lissom Grove, Wooloowin.  
**WYNNUM AND MANLY.**—Secretary, P. J. Golden, c/o Trackson Bros. Ltd, Elizabeth Street, Brisbane.

### 4WN CLUB REPORT.

Since our last report our meetings have been receiving a good deal of QRM in one way and another. For instance, we have the Radio Exhibition, Royal Agricultural Exhibition, Gilbert and Sullivan Operas, to say nothing of the circus, &c., all falling about the same time as our annual meeting. Despite this, however, we continue to log a very fair attendance every meeting night. In future we will have to try to get all these attractions postponed or something to give us a clear run for our annual meeting. It has been noted that quite a few members have been turning up at the meetings lately with worried looks and fluxite-stained hands. Investigation by our secret service agent, Mr. W. Blaikie, shows that they have been burning the midnight oil in order to get their sets finished in time for the Radio Exhibition. We hope, next meeting, to see these black looks replaced by broad grins of delight.

The club should be feeling very pleased with its showing in the Radio Exhibition, about 63 per cent. of the prizes allotted to the amateur section being won by club members. The club transmitter was a last minute entry and it therefore caused the Audio Twins much worry. We do not know whether to attribute Mr. Chas. Stephenson's strange behaviour the other night to this, or to his being in love or something, but the fact remains that he went up to Leo Feenaughty's the other night to collect the Plate milli-ammeter for the transmitter and after talking 45 minutes went off without it.

At a recent meeting we were honoured by a visit from Mr. T. Armstrong. Needless to say a very good attendance was recorded, some of our visitors coming from West End, Red Hill, and one, Mr. Chapman, from Charleville. One of our vice-presidents, Mr. Love, also paid us a much appreciated visit. After the usual business Mr. Armstrong put over a very interesting lecture on radio in general, several members asking questions at Mr. Armstrong's invitation. In concluding Mr. Armstrong, like Schnell, was heard to remark that he had not started to speak. Perhaps he will start another night.

The annual meeting went off without incident, very few changes in official positions being noticed. At the conclusion of the meeting it was moved that a question box be fitted in the club room, into which members could "post" questions. These would be answered in front of the club by the technical committee. Mr. J. P. Love rather surprised us during his report on the club's financial position by mentioning the fact that £39 odd had passed through our hands.

4WN is again arranging a demonstration at the Windsor Show, to be held on 28th August, at the Windsor School of Arts. We have arranged to have the usual room.

Apparently certain members of our ladies' committee have decided that the Perm Ham as applied to a radio man is capable of improvement. I have much pleasure in giving you their improvements. Now, ham and pork have something in common, therefore, why not "porker." Likewise by affixing the suffix "er," meaning one who, we get ham (m) er—one who hams. Perhaps the former improvement has something to do with the fact that Feenaughty's dog always barks when a radio man comes to the gate.

### TOOMBUL RADIO CLUB.

The last few meetings of the above club have shown a marked increase in the enthusiasm of its members, many of whom until recently appeared to have contracted "cold feet" or some other such dormant disease. However, the fact that two of its members, A. E. Walz, and E. Vining, have been successful in the recent A.O.C. exam., may have something to do with this renewed vigour. It has been decided to apply for an experimental transmitting license, and before long it is expected to have a station on the air. A transmitting tube has already been generously donated (any other donations thankfully received Hi), and the "Ops to be" are busy constructing the All Wave Low Loss Set the gear for which has been held for some time. It is rumoured that this two-tube receiver may take the form of a portable outfit, which could be used for future outings and week-ends which were so favourable in the past. The Toombul A.H. and I. Association is holding a radio exhibit at their show on the 1st and 2nd of October, 1926, and have left the arranging practically in the club hands, so what about it fellows? Send along your entries to the club secretary, or direct to Mr. J. Sobey, secretary of the Toombul A.H. and I. Association, Peary Street, Northgate, on or before the 18th of September. The exhibits are divided into three classes. First, best valve set; second, best assortment of home-made wireless accessories; third, best crystal set (under 14 years). In order to arrange the staging of the various apparatus exhibitors will oblige by bringing their gear along on the Thursday evening before the show. Any further information regarding the exhibits or the Toombul Radio Club may be obtained from T. Starkie, junr., secretary of the Toombul Radio Club, Sandgate Road, Nundah.

## WYNNUM AND MANLY RADIO SOCIETY.

Rapid progress is being made with the new headquarters of the club, which are situated in Tingal Road (outside Wynnum South Station). A long test bench extends the whole length of the room, and elaborate arrangements are being made for a series of testing outfit and measuring apparatus of every sort. The latter, of course, are still in the ether, but with perseverance it will be possible to have something good to show the visitors on the official opening day.

The room and grounds will be officially opened by the Hon. W. H. Barnes, M.L.A., who is the club's patron, on Saturday, September 11th, at 3 p.m., and members expect quite a number of visitors for the occasion. Numerous invitations have been sent out, and an open invitation is extended to all the radio clubs in the Brisbane area.

The club's masts will be a landmark for some distance around. They are pyramid lattice wood 30 feet high, with a 20-foot single mast on top painted grey.

The aerial, which is really intended for show purposes, is of the usual naval "sausage" type, constructed from five strands of 7-22 soft drawn copper.

Meetings take place in the clubroom on the first Friday of every month at 8 p.m., and those desirous of joining the club can communicate with the Secretary, Mr. D. J. Golden, Wynnum South.

## AUCHENFLOWER AND DISTRICT RADIO CLUB.

A meeting of radio enthusiasts of Auchenflower was held at the residence of Mr. Abeitt, Birdwood Terrace, on Wednesday, 24th ult. There was a gratifying attendance, and it was decided that a radio club be formed which would be called the Auchenflower and District Radio Club.

Mr. H. Kington, president of the Wooloowin Radio Club was present by invitation and gave a most interesting address concerning his own club—its inauguration, control, work and object. Its progress and present proud position in the radio world is, of course, well known. His address will prove to be of great value to the new club, and a hearty vote of thanks was accorded him.

The following officers were elected:—President, Mr. Abitt; secretary, Mr. L. A. Harris; treasurer, Mr. Roy Cooper.

It was decided to hold the next meeting at Mr. Abitt's residence on Wednesday, 8th September, at 8 p.m., and all interested are cordially invited to attend.

The remainder of the evening was then occupied in a general discussion on wireless.

Mr. Harris, the secretary, will be pleased to give any information to intending members. His address is Birdwood Terrace, Auchenflower, or care Leader Motors, Ltd., Adelaide Street, Brisbane.

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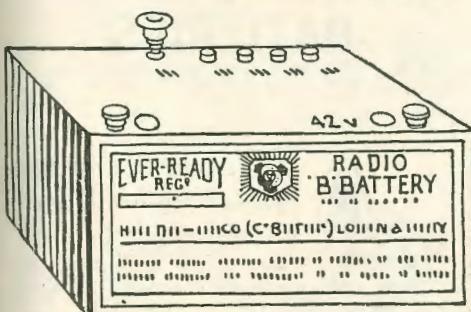
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On this occasion the concert took the form of a broadcasting demonstration, held in the Albert Hall. The concert attracted quite a large audience—the hall being well filled.



Mr. Erich John had arranged a really first-rate entertainment and those in the hall were quick to show their appreciation of the various items.

Mr. Harry Borrodale officiated at the microphone, besides giving some very humorous elocutionary items. Every artist rendered his or her item with fine artistry and the "Radio News" vocalists and "orchestra" contributed in no small measure to the success of the concert.

Early in the programme Mr. J. W. Robinson gave a brief description of how broadcasting is effected and used the apparatus on the stage to illustrate his points. It was a most interesting little talk, and thoroughly enjoyed by all.

At the conclusion of the concert Mr. Borrodale requested listeners to send reports of the concert to the Editor of the "Radio News" or to station 4QG.

As a result hundreds of letters were received from all parts of Australia, and also New Zealand, testifying to the excellence of the concert. One listener from Red Hill, Brisbane, enjoyed himself so well that he sent along the price of four tickets. Another listener from Ipswich asserted that he had listened to concerts in England and various parts of the Continent, besides all Australian stations, and he had never heard anything to excel the "Radio News" concert.

We thank all those good people who kindly sent along their report. The artists and ourselves found great enjoyment in reading them all.

On this page is shown some of the crowd that attended the Albert Hall on the night of our concert.

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G.H.H. (Miles).—The circuit sent appears to be O.K. We suggest that you connect your bias battery in the A battery negative lead to the transformer. Why not try transformer coupled radio stages, which would give greater selectivity and simpler tuning. Be careful to have your audio transformer connections correct, as those shown in your drawing are reversed.

W.J.H. (Longreach).—1. Very few chances in this class of work. 2. Write to Underwood Business College, 452 Queen Street, Brisbane. 3. No. 4. Practically none unless you have previous experience.

A.L. (Molloy).—We advise you to write direct to some of the wholesalers advertising in this issue.

G.H.H. (Miles).—We would recommend that you first write to the Radio Inspector, care Postmaster-General's Department, Brisbane, who will give you information regarding the rules. Also see our article on "That Ham Ticket" in our August issue.

D.A.L. (Graceville).—Either 14ga. or 16ga. wire may be used. Although the 16ga. wire is slightly easier to wind, it is preferable to use 14ga., as this will give a larger current output.

H.R.T. (Chillagoe).—Rebuild your set as a four valve (1 R.F., 1 Det, 2 A.F.) omitting all two-way switches, etc. Remember simplicity in wiring means better results. Recommend one aerial coil only, with reaction coil coupled to turned anode coil.

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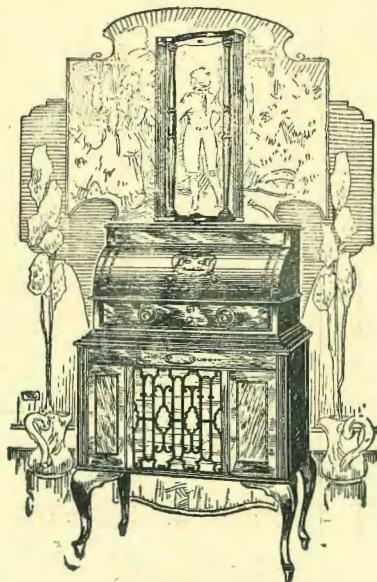
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Rr13, ten to one ratio	35/-
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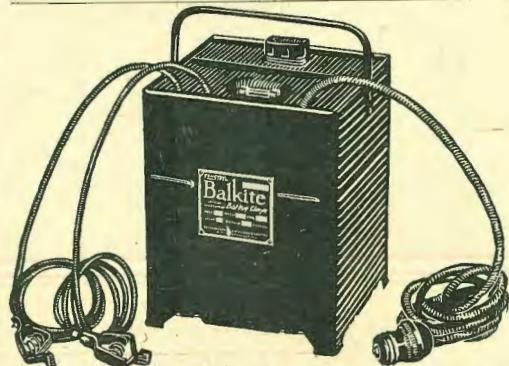
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### RADIO

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Rr10, Intermediate Frequency	47/6
Rr30, Radio Frequency Coupler	37/6
Rr40, Universal Radio Frequency Coupler	42/6
Rr20, Filter Transformer	47/6



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