

WEST AUSTRALIAN
WIRELESS NEWS
AND
MUSICAL WORLD
ENTERTAINMENT
NEWS AND EDUCATION

Vol. III.—No. 64.]

Perth, Australia, April 18th, 1932.

[THREEPENCE.]



Then Equip Your Set With **PHILIPS** RADIO VALVES



PHILIPS were the pioneers of the valve industry, and in their world-famed Laboratories at Eindhoven in Holland have developed the wonderful new Philips' series. Always leaders, they still stand as the makers of the finest radio valves in the world to-day. Philips valves to-day are unequalled for distance, tone, sensitivity and robust construction.

SELECT FOR YOUR SET

PHILIPS

THE VALVES THAT EXPERTS CHOOSE

All the new Valves are now in stock, and can be seen on **STAND 17** at the Exhibition.

W.A. Distributors—Wholesale and Retail—

Unbehau & Johnstone (W.A.) Ltd.

381-5 Murray Street, Perth

DISTRIBUTORS OF PHILIPS RADIO PLAYERS,
PHILIPS VALVES — AND COMPONENTS.

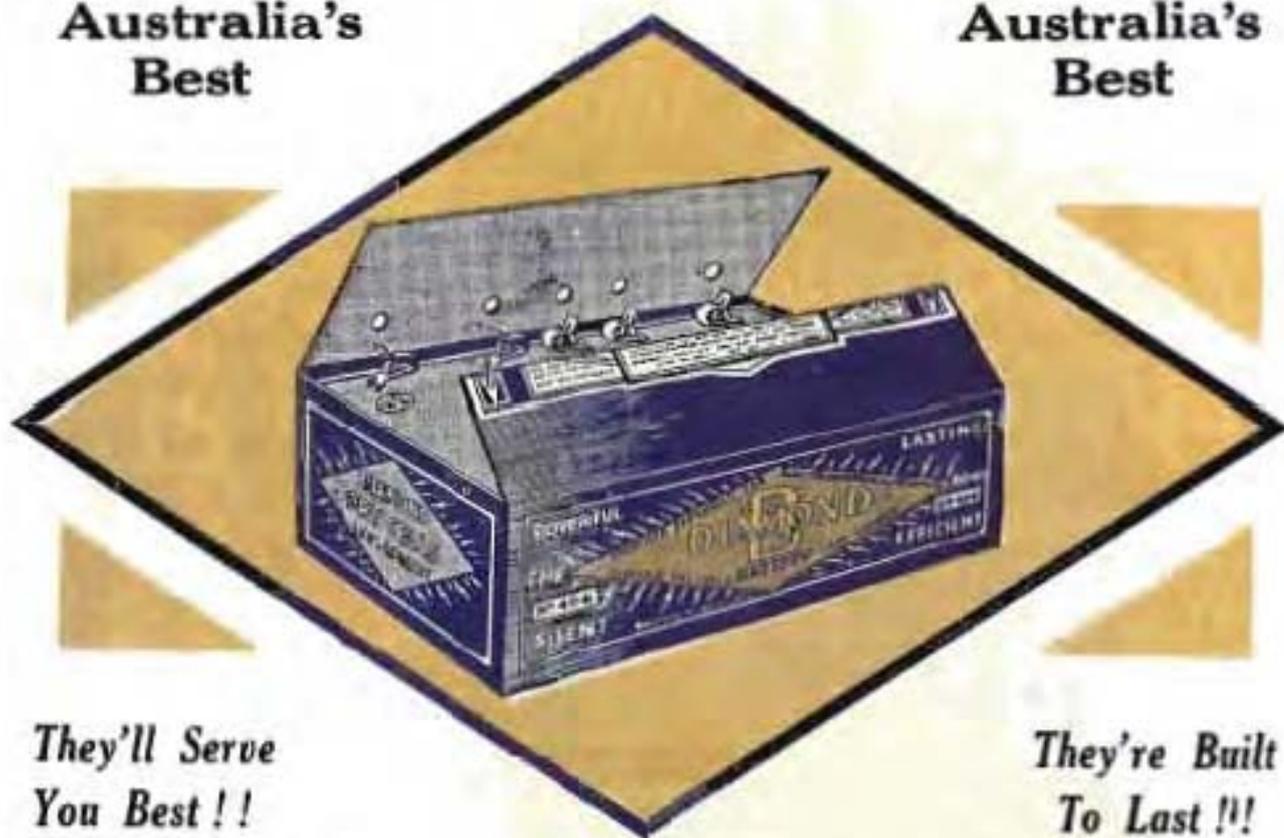
SEE THEM ON
STAND 2

The NEW

Diamond Radio Batteries

Australia's
Best

Australia's
Best



*They'll Serve
You Best !!*

*They're Built
To Last !!*

New Diamond Batteries are built to an entirely new and advanced formula. Distinguished for great durability.

Every "Diamond" Battery sold carries with it a pledge from the manufacturers of satisfactory service, and a guarantee of freedom from any manufacturing defect.

The Cell Construction is unique—the Power built into New "Diamonds" remains unimpaired after heavy service drain.

ALL RADIO DEALERS SELL "DIAMOND" BATTERIES.
STATE DISTRIBUTORS:

Carlyle & Company

915 Hay St., Perth

278 Hannan St., Kalgoorlie

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Wireless News and Musical World

Conducted for the advancement and for the protection of Wireless interests in West Australia and incorporating "The Musical World."

SUBSCRIPTION RATES:
6/6 per annum, payable in advance (post free within the Commonwealth). Outside Australia: 8/6 per annum (post free).

POLICY:
"The Wireless News and Musical World" is an independent paper published in the interests of Wireless and Music. The Policy of the paper is entirely in the hands of the Editor.

Official
Organ:

- The W.A. Music Teachers' Association.
- The Ophelia Society.
- The Metropolitan Orchestral Society.
- The Metropolitan Gleemen.
- The L.A.B. Club.
- The Repertory Club (Inc.).
- The W.A. Concert Artists' Association.
- The W.A. Education Teachers' Assoc.
- The Sublime Radio Society.

ADVERTISING RATES
may be had on application to the publishers, R. E. SHAWSON, BROCKMILL, 271-3 Hay Street, Perth, W.A. Telephone, 2442, 27144.

"The Wireless News and Musical World" will protect the readers by refusing to publish anything of a scandalous nature both in the reading matter and its advertisements.

Vol. III.—No. 64.]

April 18, 1932.

[THREEPENCE.]

Reg. at G.P.O. Perth, for transmission by Post as Newspaper.

*Introducing the Blue and Gold
Exhibition Souvenir Number!*

To Our Readers,—

WHEN it was announced by the Radio and Electrical Traders' Associations that the decorative scheme at the Radio-Electrical Exhibition, to be opened tomorrow night, April 19th, at Temple Court, would be in blue and gold, we decided to offer our readers a special blue and gold Exhibition Souvenir Number of your wireless paper in that colour scheme, to mark the first Radio and Electrical Exhibition organised by the Radio and Electrical Traders' Associations of Western Australia. In submitting to you this Special Issue we trust that it will meet with your approval and that the information contained therein will prove entertaining and of value to your friends when selecting radio sets, valve replacements, components, and all those things appertaining to radio. We have always endeavoured to give our readers full value for their money, and feel that our effort to give something exceptional with this issue, marking as it does, the first of what will probably be a regular

yearly exhibition, will be appreciated by both our readers and the traders. We sincerely trust that this issue will please and if it does the pleasure will be mutual, for it pleases us to please you with the publication. We will ever continue to endeavour to give our readers all the news and information relating to radio and music, and trust that you will always recommend the paper to your friends as "The Best Guide" for them to consult when buying radio receivers and apparatus. By so doing you will be helping our advertisers, to whom you are indebted in a big measure for their support, thus enabling us to print and publish a bigger and better issue. Thus for your approval we submit the Blue and Gold Souvenir Exhibition Number of "The Western Australian Wireless News and Musical World."

Yours sincerely,
ERNEST H. SHAW,
Editor.

Hey! Ho!

Everybody!

To-Morrow Night
in the
Opening Night



The Radio-Electrical
EXHIBITION

**THE GREATEST RADIO-ELECTRICAL EXHIBITION
THE WEST HAS EVER SEEN**

Tell Your Friends . . . Bring Your Friends . . . Don't Miss It
All the latest developments in Radio and Electrical Science, novelties, competitions, and wonderful displays.

**Radio Receiver
FREE.**

Every person paying for admission has a chance of winning a 1932 Model Radio Receiver valued at £35. That chance alone is worth the small entrance fee. If you haven't a set here's a chance to win one. If you have, you would surely prefer a 1932 model.

TEMPLE COURT,

No. 2 Garage Entrance from William Street

APRIL 19th to APRIL 23rd.

Evening Sessions, 7.30 to 10.30

Afternoon Sessions . . . 2 to 5

SPECIAL SESSIONS FOR SCHOOL CHILDREN

**Admission — Evenings, 1/-; Day
Sessions, 6d.; Children Half Price.**

Organised by
The Radio and Electrical Retailers Association

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Everybody!

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Organised by
The Radio and Electrical Retailers Association



The Onward, Ever Onward March of Radio Science.

This Will Be Amply Demonstrated
at the Radio Electrical Exhibition.

RADIO is, although one of the youngest, one of the greatest industries in Australia today. In the last few years it has grown from a few small concerns to hundreds of large factories employing thousands of Australian workmen and scientists who have experimented and improved radio receivers from what they were a few short years ago—featuring affairs with dozens of knobs to twiddle—to the magnificent cascade radio and phone-radios that will be on display at the Radio Electrical Exhibition at Temple Court tomorrow night.

This year radio has made remarkable strides, not only in set design, but in components, speakers and more particularly, in radio valves. Cabinet design has changed entirely from the old box cabinets of a few years ago, and it is at the Exhibition you will realize how 1932 models have improved over those of last year. This year's models offer the set purchaser better value in radio than ever before, and this is undoubtedly attributable to improved manufacturing and merchandising methods, enabling the many improvements to be incorporated without increasing the cost to the buyer.

The exhibits at this Exhibition are going to be so fine that it will be difficult to point out any exhibits as particularly outstanding. Perhaps the Superheterodyne receivers will attract the most attention, for they are undoubtedly the sets of the year, but everyone will not want Superhets. The straight sets, such as the Eminent, the Yogan, the Alzome, Radona, S.T.C., the Heale, the Ray-ophone, Triang, the Economy Six, and many others are going to make a strong appeal to listeners. These and others too will always be popular. The country man has not been overlooked, for the new battery models, using the new light consumption valves will be much in evidence. There will be a battery Superhet on display using these new tubes, and this set last week, while in the back of a motor car, with only a few feet of aerial brought in station after station from the Eastern States right in the heart of Perth. But that, by the way, is only one of many things of interest you will see.

Possibly some of the novelties will attract as much attention. One of these will be the Wireless Pillow, particulars of which are published in this issue. Space will not permit the telling of all you will see there in radio and electrical appliances. Never before in the history of Radio in Western Australia has anything on the same scale as this Exhibition been attempted, and those who visit seeing the Exhibition will be sadly neglecting their education in radio and electrical science. Come to the show and see for yourself what wonderful strides have been made during the past year. You will see how the little infant industry of yesterday has developed into one of the greatest in Australia today.

The following are only a few of the outstanding exhibits you will see at some of the traders' stands. On Stand No. 2, most prominent will be the Australian Diamond batteries, for which Carlyle & Co. are the State

distributors. Take the improvements that have brought these non-famous batteries right into the forefront of the world's best makes, and you will realize that the chemists and scientists in the Diamond factories have let no grass grow under their feet. Messrs. Carlyle & Co. have advanced with radio and are today possibly the largest radio distributors in Western Australia, and it is on their stand that you will see almost every component known in radio—Mullard valves, Amplin speakers, Carbonzells, Radiotron products, Radiotron valves, A.V.A. and dozens of other makes of components, and many radio lines well and favourably known to the radio public of this State. In addition they will be displaying the range of Union Radio Receivers. Great sets that make one wonder just how they can be sold for the price. The cabinets are really luxurious. Well, go and see these all for yourself, make for the Big Stand, No. 2, on your left as you enter—Carlyle and Company.

S.T.C. 1932 Models.

That S.T.C. have supplied the improved tone control performance used by every A Class Station in Australia and New Zealand and has also supplied special reproducing equipment for the use of the A.B.C. in testing singing, playing, and speaking qualities of artists, seeking broadcasting suggestions, amply proves that S.T.C. radio products enjoy amongst radio experts a wonderful reputation for exceptional tonal quality. The reputation is well-earned in the two new S.T.C. electrically-operated receivers, which will be seen at the Radio Exhibition tomorrow night. These instruments reproduce the human voice and music with an amazing degree of realism.

The model 41, the four valve receiver (under the new casing), is primarily designed for reception from local stations. It employs one variable Mu followed by a screen grid detector resistance coupled to 247 pentode. The set is remarkably selective and although it is not designed for Eastern States reception, some of the more powerful stations have been brought in on it.

Designed to give Eastern States reception, the model 51 is a remarkable receiver. This receiver is a replica of the 41, except that it embraces an additional stage which cuts out the best radio frequency stage when local reception only is wanted. A great feature of this set is in what is termed the Silent Tuning. For instance, if you are tuning on the bottom of the scale and you wish to pass over a number of stations and go to the top of the scale, instead of constantly flipping in and out again, all you do is press a button on the front of the receiver and the stations are passed over without being heard. Then when the button is released with the number of the dial on the station required, that station comes in. This is one of the outstanding improvements in radio receivers that will be seen at the Exhibition, and S.T.C. have it on the model 51.

WHEN YOU TAKE HOME
THIS CARTON, YOU TAKE
HOME A REAL VALVE!

RREAL radio enjoyment does depend on the valves. If you would have the best that your receiver can offer then we say—take home a REAL valve—a PHILIPS.

The new PH tubes will delight you with their performance—will bring new life to your receiver, and will demonstrate the amazing brilliance and quality of reproduction made possible by the new Philips series.



They are sturdy tubes capable of the long and faithful service which the radio enthusiast can expect from modern types such as the new Philips series.

Look for the PH seal—it is your "Brand New" Guarantee.



PHILIPS
VALVES



Unbehau & Johnston (W.A.) Ltd., 381-385 Murray Street, Perth.
J. R. W. Gardam & Co., 138 Murray Street, Perth.

WHEN YOU TAKE HOME
THIS CABINET, YOU TAKE
HOME A REAL VALVE!

REAL radio enjoyment does depend on the valves. If you would have the best that your receiver can offer then we say—take home a REAL valve—a PHILIPS.

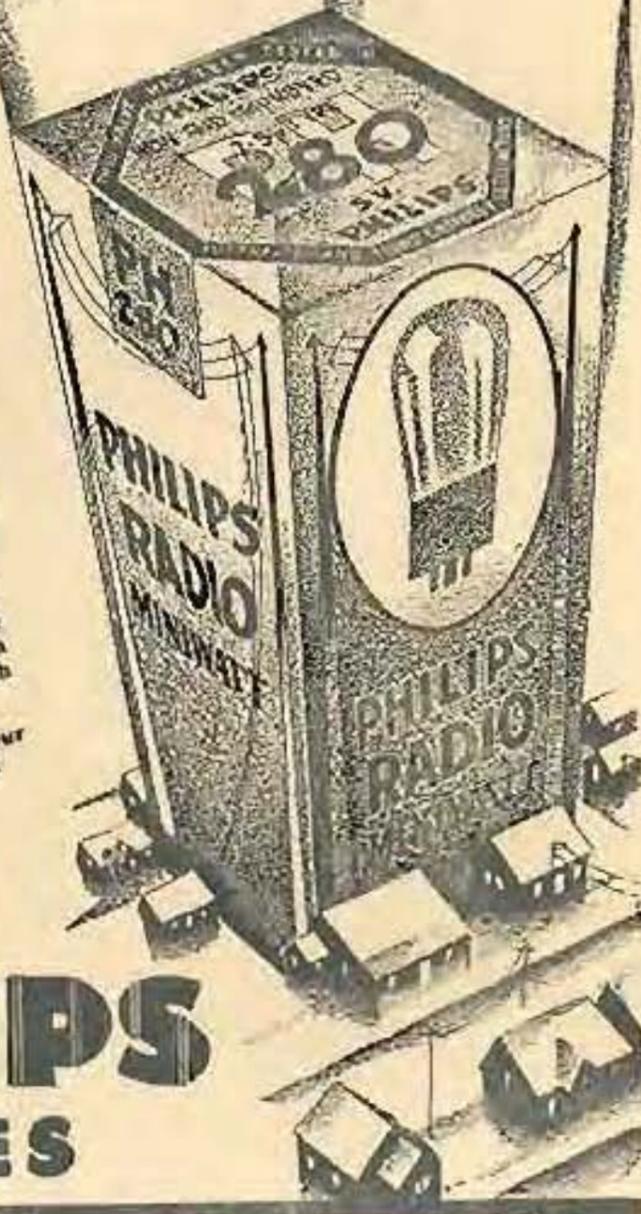
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Look for the PH seal—it is your "Brand New" Guarantee.

PHILIPS
VALVES

Lindsay & Johnston (W.A.) Ltd., 381-383 Murray Street, Perth.
J. R. W. Gardam & Co., 138 Murray Street, Perth.



The cabinets in which these receivers are housed are particularly well built, most artistic in design, and being finished in two tones of walnut, lend themselves well to almost any furnishing scheme in the home. These new G.E. receivers should certainly be seen by you when visiting the Exhibition tomorrow night, for they represent the latest in set design from a company that has a world-wide reputation for radio apparatus and sets. See them on Stand 5 at the Exhibition—Messrs. M. J. Bateman Ltd., who are the W.A. distributors.

The New Radiolas.

Enjoying as they do Australian-wide popularity, it is only natural that all radio enthusiasts will be interested in seeing the 1932 Radiola receivers. The outstanding Radiola of 1932 is the 55E, a set of outstanding performance, employing three radio frequency amplifiers with power detector resistance coupled to one of the new 247 type pentodes. Variable Mu valves are used in all the radio frequency stages. Neither earth nor aerial is needed for local reception with this super receiver.

There are a number of other Radiola models, including the Radiola Junior, and also some fine battery operated models. The principal battery job is the new 55B, a seven valve set employing several screen grid valves and power valves in push-pull for the output stage. The reproduction from every set leaves nothing to be desired. The cabinet of the 55E is particularly attractive and absolutely unique in design.

The Radiola range may be inspected at Photographers' Stand at the Exhibition, Number 27, and it is there you will see all the latest receivers from Australia's greatest radio factory, Amalgamated Wireless of Australia Ltd. Remember Stand 27 for the Radiola display.

1932 Raycophone Receivers at Stand 13.

The Raycophone sets at the recent Sydney Exhibition proved to be one of the most attractive sets displayed. The set employs three stages of variable Mu valves on the radio frequency side, screen grid detector, and the new pentode in the output. The luxurious cabinet, executed by Healy, is plain but most attractive. It is most beautifully grained, and has a high piano finish.

Pilot parts, too, will be prominent on Harrington's stand, as well as the famous Pilot Super Wasp receivers. Duffy short wave sets, and a new Duffy all electrical short wave adaptor for all electrical receivers. There will be much to interest visitors at Stand 13, which is on your right as you enter the hall.

The New G.E. Receivers.

Visitors to the Exhibition will undoubtedly be impressed with the new G.E. Radio Receivers, available in straight sets and in phono-radio combinations. These sets, products of the Australian General Electric Co., are equipped with the famous Radiotron, and the R.C.A. model 106 dynamic speaker. Tone and volume are exceptional, and the appearance of the sets leaves nothing to be desired. They are exquisitely proportioned and artistically designed and finished in two tones of walnut. In the phono-radio models the famous R.C.A. pick-up and the G.E. phono motor are incorporated.

You will see a remarkably low display of radio receivers and radio apparatus at Stand No. 20 at the Exhibition, which is that of Atkin (W.A.) Ltd., who will be showing there all the 1932 Emco receivers, including a remarkable Emco super-heterodyne receiver, the famous R.C.A. Radiotron valves, Mazda valves, Emco radio pro-

ducts, Willard batteries; in fact, far too many lines of interest to the radio public to comment on in the space available in this issue. However, whatever you do, don't miss a visit to Stand 20. The new G.E. sets alone would be quite sufficient to interest you, let alone the many other interesting exhibits on this stand.

The New Vogue Sets at Nicholson's Stand.

Vogue Radios, that during the past year were immensely popular, will be a centre of attraction at Stand No. 8 which is that of Nicholson's Ltd., the Western Australian distributors of these sets that have proved so popular in the year just past.

The new Vogue receivers will be made available to the public at the Exhibition tomorrow night. Although you will see many fine receivers, you would be well advised to inspect the 1932 Vogue receivers. The range includes three, four, and five valve sets in both straight radio and phono-radio combinations. Nicholson's last year came right to the forefront in radio, and this must be attributed to the wonderful Vogue receivers, which they are fortunate in controlling in this State. We predict that the 1932 Vogue receivers, with Nicholson's, will be second to none in Western Australia in the field of radio, for the sets are going to be popular, as they embrace all the latest developments in radio design, are housed in particularly attractive cabinets, and the price is what will please the set purchaser.

The 1932 Airzone Range at Stand No. 16.

It will be worth pushing through the crowd at the Exhibition tomorrow night to see the 1932 Airzone Radios, and believe me when I say they will be well worth your inspection. There you will see the tiny Cub, which is a three valve receiver selling at the low price of £15, and various models ranging up to their magnificent six valve receiver in a full console cabinet in both radio and phono-radio combinations. Last year's Airzone sets proved that the Airzone Company never release a set until it is proved right up to the hilt. This was borne out last year by the wonderful performance that was achieved with their Band Pass Four. Good as was this receiver, it is excelled in performance by their latest six valve model, which is a veritable wonder set for Eastern States reception. In the de luxe models the cabinet work is a beauty to behold, and Airzone performance, coupled with the high quality workmanship in the sets and the magnificent cabinets that house them, promise a wonderful popularity for the new Airzone sets.

Stromberg-Carlson Radios.

At the stand of "Perth's leading music house," Musgroves Ltd., visitors to the Exhibition will see the new Stromberg-Carlson superhet which, by the way, was the first superhet to be released in Western Australia. This remarkable receiver is designed to give Eastern States reception with full volume and without interference from nearby local and distant stations. Its degree of selectivity is little short of remarkable, and those who have not yet inspected this new Stromberg-Carlson product should waste no time in seeing it at Stand No. 4.

In addition, there will be a full range of Stromberg-Carlson receivers in both radio and phono-radio combinations. The very name Stromberg-Carlson is a safe synonym for any prospective set buyer. If a Stromberg-Carlson set appeals to you, then arrange with the attendant at the Exhibition to have a demonstration in your

Advertisers will appreciate the mention of this Paper in your Enquiries

A Veritable Shrine of Music!

RAYCOPHONE

MODEL 62E.

Special Features:

CABINET.

A Durable Cabinet in Modernistic Design—Hand-made by Beale Craftsmen. Beale veneer is noted for its beauty of figuring, but more important still is the fact that it will not crack, split or warp like so many of the cheaply constructed cabinets. The solidity of plywood structure insures vibration and false response. The only Acoustically Correct Cabinet!

-tone.

Exclusive Stereoscopic Tone, with every instrument standing out in clear perspective.

OPERATION.

Actual wave-length is shown on a full vision illuminated dial of exclusive design, and the readings are visible without stopping. Total gives wide separation of stations grouped close together so the lower wave length.

SELECTIVITY.

Ultra Selective! Three stages "Variable Mu" Screen Grid, six valves in all.



Special Features:

VOLUME CONTROL.

Velvety smoothness from throat to whisper. No modulation distortion.

tone CONTROL.

Personal Type allowing individual adjustment for emphasis of high or low notes.

VALVES.

All Raycophone sets are equipped throughout with R.O.A. Radiotron Valves specially matched and tested.

LOUD SPEAKER.

Magnavox Dynamic Speaker of New and Improved type.

GUARANTEE.

The 43-year reputation of Harringtons' stands behind every Raycophone. Material and workmanship is guaranteed for twelve months.

Cash Price: £37-10-0

Easy Terms Can Be Arranged.

Any Authorized Raycophone Dealer will be pleased to arrange for a Demonstration in Your Own Home.

Harringtons
(W.A.) LTD.,
28 KING ST., PERTH.

Stand No. 13
at the Exhibition.

The RADIO of EXCLUSIVE TONE!

Advertisers will appreciate the mention of this Paper in your Enquiries.

time. If you want to see how you would receive local stations, then arrange for a demonstration in your home with a Stromberg Carlson super list. Its performance, I venture to say, will positively amaze you. All the new Stromberg Carlsons will be there for you to see at Stand No. 4, Musgroves Ltd.

Better Valves for Better Radio — The New Cossors.

The famous A.C. screen grid valve by Cossor as well as the full range of Cossor valves will be displayed at Stand No. 6, which is that of Messrs. Watson & Co. Ltd., for whom Mr. E. Egan, chairman of the Electrical Traders Association, is manager. Not only the famous Cossor valves will be seen, but other radio lines, and all manner of domestic electrical appliances for which Messrs. Watson & Co. are distributors in Western Australia. This stand should be particularly interesting to housewives, for there they will see all the latest in electrical fires for the coming winter, and electrical appliances that all help to make their household duties lighter. Ladies, do not miss Stand 6 at the Exhibition. It will be well worth your careful inspection.

Beale Panchromatic Radios.

At the stand of Thomsons Ltd., No. 10 at the Exhibition, you will see the latest Panchromatic Radio Receivers by Beale, superb receivers in magnificent cabinets with a high piano finish, slightly futuristic in design, but as beautiful a thing as the eye could wish to behold. In addition, the new Arizona sets will be featured at this stand, as well as many other new models and well known leading makes.

From a housewife's point of view, this stand will attract, for on it will be featured the silent Solorac and Columbia cleaners and polishers. The new models of these great labour saving devices embrace many improvements on other vacuum cleaners and polishers. No modern housewife can afford to be without one of these in the home and, although it is a sweeping statement to make, we have no hesitation in saying that there is nothing on the market to equal these machines. Thomsons' Stand is No. 10 at the Exhibition, and, in addition to those exhibits mentioned, there will be much else both in radio and electrical goods to interest the visitors and housewife in particular.

The "Tasma" Superhet. and "Tasma" Radios.

On Stand 17 the new Tasma range will be featured and amongst them will be seen some remarkably fine receivers. Particularly these new superheterodyne receiver employing six valves. This set is fitted with a pre-selector and in the first stage and the selectivity with this set is little short of remarkable. This set created a sensation at the Sydney Exhibition and it will be on view here for the first time at the Exhibition tomorrow night.

Another particularly fine model is the Tasma Economy Seven, employing three R.F. stages using the new variable Mu valves, S.G. detector, and two Philips power pentodes in push-pull. You can imagine what the quality of its production for such a set would be. The tone is like a magnificent pipe organ. The Economy Five, too, is made in a six valve model, the additional valve being a power pentode working with another in push-pull. Spotlight tuning is a feature on the new Tasma models. Tone and volume controls are incorporated.

Undoubtedly the Tasma Super Superheterodyne will be a great attraction of Underbank & Johnston's stand, but in addition to the Tasma 3, 4 and 5 valve straight models, another set that will attract attention is a four valve D.C. set, which when tested out in the workshop in Perth, using only an aerial four feet in length, brought in numerous Eastern States stations. It uses one R.F. stage (variable mu) detector and two audio stages, the output stage using a 300 volt Philips power pentode. Fitted into an attractive full console cabinet, with dynamic speaker, it will be a unique exhibit and one that will attract much attention, for it is the ideal receiver for country towns where D.C. current is available. Eastern State reception is positively guaranteed with this new D.C. set.

Philips famous valves and components, too, will be much in evidence, and visitors will find much of interest in the way of new sets, novelties, and radio apparatus to interest them at this stand.

"The Ritz"—A New Creation.

On Messrs. Latham & Co.'s stand (No. 18) will be displayed the new Ritz receiver, which is an ultra modern 2-valve receiver capable of an undistorted output of 25 to 3 watts. The detector employs the new Philips Selectone variable mu S.G. valve, followed by a five element pentode with a plate input of 12 watts. This powerful audio tube is choke coupled in a unique manner to the receiver valve. A new method of volume control is featured, enabling gradual increase or decrease. This is obtained through a constant current ladder system operating on to the input current of the 12 watt pentode, and not operating on the detector, which is liable to interfere with the process of demodulation, thus spoiling the quality of the reproduced music. The components are all of the highest quality and the receiver is ruggedly constructed and a remarkably fine job throughout. The chassis is mounted in an artistically designed two tone full console cabinet, and fitted with the famous Jensen dynamic speaker. The Ritz can be obtained in both radio and phono-radio models, but the cabinet for the radio model is designed so that it can at any time be converted to a combination set. In the phono model the motor used is the R.C.A. induction motor and an all-bakelite B.T.H. electrical pick-up is installed. There will be many fine sets on view at the Exhibition, but hearing them will be the real test and prospective set buyers should hear this set before coming to any decision, for its tone is like a grand church organ. Also on this stand and No. 18 will be seen the famous Jensen speakers, Philips valves and components, and the many other radio and electrical lines which are handled by Messrs. Gardam & Co., including the new Volta radio batteries, which will be displayed, opened up to show their perfect internal construction.

"Renrade" Radio Components.

Again if you will carefully examine any of the leading radio receivers at the Exhibition you will notice the marked preference by the leading manufacturers for the Renrade Resistors. They are selected by the leading radio engineers on account of their accuracy in value and their dependability. Another feature in their favour is that they are small and convenient for fitting. The "Renrade" range of radio components embraces a New Type of Air Cooled Voltage Divider, "Renrade" Fixed Condensers for A.C. sets, "Renrade" Valve Sockets, Phone Tips, Solder Lugs, Speaker Coils, Grid Leaks, Grid Leak Mounts, etc., etc. All the "Renrade" range will be displayed on Stand 2, that of Messrs. Carlyle & Co.

Advertisers will appreciate the mention of this Paper in your Enquiries.

THE VALUE WONDER SETS AT THE EXHIBITION!

The New "TASMA" Economy Models

These remarkable receivers created a sensation at the Radio Exhibition in the Eastern States recently, and they certainly will do the same here to-morrow night.

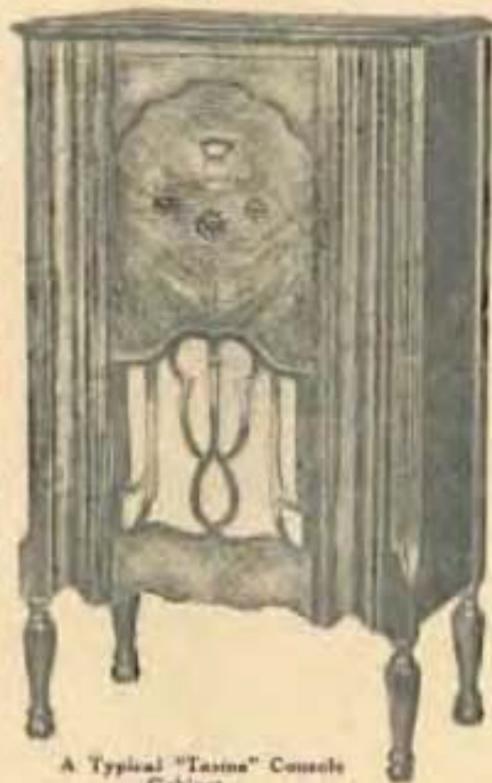
Don't Miss Seeing Them at Stand 17.

The "TASMA" Super Heterodyne (6) with Pre-selector tuning, is a truly remarkable receiver for Eastern State reception. It will be the "Star" set at the Exhibition. Don't miss seeing it.

The 1932 "TASMA" Economy Five. For matchless beauty in tone and appearance this set is a radio revelation.

The "TASMA" Economy 4 is a replica of the "Economy 5" except that a stage of H.F. amplification using the new Variable MU valve precedes the Detector.

WONDERFUL SETS AT WONDERFULLY LOW PRICES.



A Typical "Tasma" Console Cabinet.

The "TASMA" Economy 4 Combination is the supreme radio achievement of recent years. 3 Variable-MU R.F. stages, S.G. Detector and 300 Power Pentodes in push-pull, giving Pipe Organ Tone Reproduction. A Magnificent De-Luxe Receiver in both Radio and Phono-Radio combination.

The "TASMA" Economy 2. A beautifully finished and highly efficient receiver at a remarkably low price. You must hear it to appreciate it. Arrange for a demonstration of any model in your home with the attendant at Stand 17.

Standard Features are: Spotlight Tuning, Volume and Tone Controls, Full Dynamic Speakers.

See These Sensational Receivers, in Sensational Cabinets, at Sensational Prices, on Stand 17.

DEMONSTRATIONS ARRANGED IN YOUR HOME.

Reg. Write or Call at

UNBEHAUN & JOHNSTONE (W.A.) LTD.

381-5 MURRAY STREET, PERTH.

OR ARRANGE WITH THE ATTENDANT AT STAND 17 AT THE RADIO EXHIBITION.



Specially written for the Exhibition Number of "Wireless News" by E.H.S.

Ingalarie's Radio Totem

A Radio Story of High Adventure in the New Hebrides, of how two men settled a life score and how Radio proved a god of deliverance.



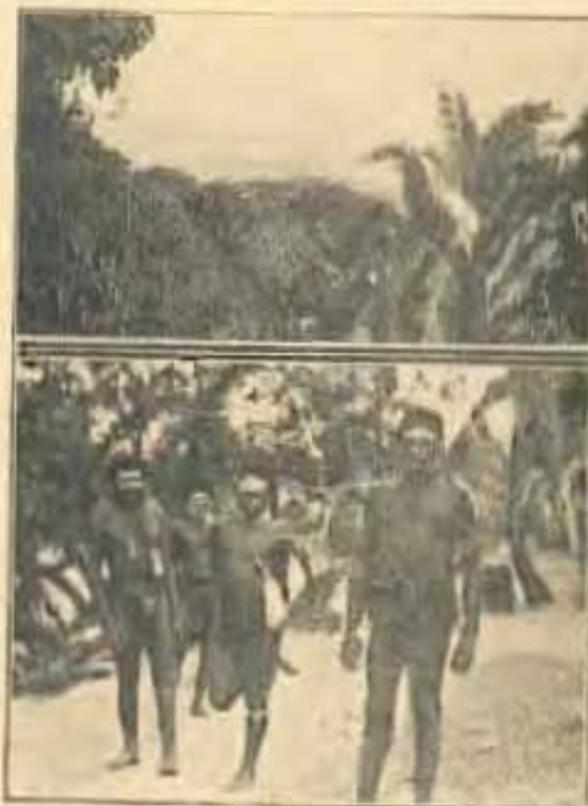
FIRST met Otto Schloff in the boarding school at Saarlouis in France during the war, and I wondered at the time how he happened to be in the A.I.F. with a young and obviously German. It appears he was from South Australia, being born there of German parents. After the school we were both drafted to the same Machine Gun Section, and Schloff was Corporal in one of the guns of the section in which I was a sergeant. He had a great habit of going out looking for hidden German machine gun positions, and was often away at night for hours at a time. Being suspicious I followed him one night and to my surprise saw him enter an enemy machine gun post and soon twenty minutes later emerge. There was always an unexplained of amity between us—we seemed naturally to dislike each other, but I never gave him an opportunity of openly showing his dislike for me. On the night I followed him, I intercepted him in a depression in No Man's Land on the return and challenged him. He flew at me like a tiger, and like tigers we fought it alone in that dark hole, fearful but being heard we would draw our own fire upon ourselves. Eventually I broke clear and with my overhanging rifle handle struck him down unconscious. He was too heavy for me to lumber back, and with all haste I made for our post for assistance in bringing him in. We returned to find his gun.

With the termination of the war, I returned to Sydney and accepted a post as manager on a plantation in the British section of the New Hebrides. The plantation was owned by John Gilbert, who resided there with his wife and daughter Marie. After I had been there twelve months I found myself really in love for the first time in my life, with Marie, who inherited all the charm and vivacity of the French woman from her mother, whose father had originally owned the plantation, he having left the French part of the island owing to some disagreement with the French authorities. We were a very happy little family circle, for when the day's work was done we would listen in to some of the Australian stations on the special short wave broadcast receiver I together with a compact short wave transmitter, had brought with me from Sydney.

I had occasion to visit the little village of Piche, in French territory, in connection with the engagement of some boys for the plantation, and in my surroundings came face to face, in the native quarters, with Otto Schloff, whose face I recognised despite the scar I had inflicted

upon it years before. Recognition was mutual and by his face I could see his enemy was now bitter hatred.

Three months passed without a further sign of him, he evidently dreaming it was to keep out of British territory. The next month Marie and I were to be married at the Mission. A fortnight before the happy event, to our utter consternation, Marie disappeared. She had started



Above is shown the heavy forest country through which the rescue party had to fight its way. Below—Some of the plantation boys and Tablusa in the foreground.

Advertisers will appreciate the mention of this Paper in your Enquiries.

RENRADE RADIO PRODUCTS ARE AUSTRALIAN MADE.

A Timely Reminder!

READ the following list of the well-known RENRADE RADIO COMPONENTS and learn of the products that are so consistently specified by Australia's leading Wireless Journals—this alone is a lead you could do well to follow.

RENRADE RESISTORS

There is now a Renrade Resistor for every type of Radio work, for these products have gained in popularity by their accuracy and dependability. Study the following table for your requirements—

Type W1—1,000 to 500,000 ohms	1/2
Type W2—1,000 to 100,000 ohms	3/4
Type W3—1,000 to 10,000 ohms	5/8
Type W5—1,000 to 100,000 ohms	4/3
Type R2—10,000 to 10 Megs.	1/2

(Type R3—Glass Enclosed)

All above 5% Tolerance, 10% slightly lower in price.

RENRADE VALVE SOCKETS

The unique design of this new series provides the correct kind and amount of contact for all uses. This new design is the result of a careful study of the problem of contact reduction—without sacrificing material. The Socket is of the wafer type, UX and UY, with an extra layer of insulating material, thus enabling it to be mounted on a much smaller hole than usually required. Another feature is the two-hole mounting instead of four-hole.

RENRADE PHONE TIPS

Standard size Phone Tip with special silvered finish which facilitates soldering. Phone Tip are extremely useful for making most connections to the end of wires.

RENRADE SOLDER LUGS

These are made in two types—Tinned Copper and Tin. These little lugs are indispensable to any solderer.

Manufactured solely by:

R. W. REYNOLDS LTD.

200 CHALMERS ST., SYDNEY, N.S.W.

SOLE AGENT IN W.A.: SCOTT & HOLIDAY, LTD.

RENRADE RADIO PRODUCTS ARE AUSTRALIAN MADE.

Advertisers will appreciate the mention of this Paper in your Enquiries.

RENRADE FIXED CONDENSERS

Renrade Fixed Condensers are a particularly important job; the plates are of thin brass—set the full; the inner insulation is of very high grade, and the electrodes are bakelite. They range in capacity from 0.001 to 50. All Renrade Fixed Condensers are impregnated in resin and have to pass a leakage test on a 500-volt megger of at least 100 megohms before they are accepted as O.K.

RENRADE GRID LEAK MOUNTS

These little mounting brackets are very helpful to the experimenter using Grid Leak type Resistors; they are neat in appearance and are made from bakelite with silvered contacts.

RENRADE SPEAKER CORDS

Renrade Speaker Cords may be obtained in any length. These are convenient for the listener who wants to take the speaker a long way from his set.

RENRADE VOLTAGE DIVIDER

Renrade new type Voltage Dividers, while still being very low in price, compares more than favourably with any higher priced article. The stands are rugged and compact, and still retain the air-cooled feature of Renrade. The leads are much narrower, allowing for adjustment, while the terminals are much in diameter. All types of Voltage Dividers are obtainable.

RENRADE SPECIAL RESISTANCES

Write our Research Department for their skilled advice on any resistor that you may require.

out with hunch for me to a distant part of the plantation and from then had completely vanished. At first we suspected bad play by some of the native boys. Then my suspicions settled on my old enemy.

Picking a number of my best boys, under my hand boy Tabison, I crossed contrary to regulations into French territory to find Schloffs. I made for Feta, which is a little town on the fringe of civilisation. Beyond lay dense forest and mountainous country. Somewhere in this jungle were the villages of the wild hill men, ruled over by a bad old chieftain named Ingalarie, who had more wives and more harem's than his credit than any other chieftain for the more wives a chieftain had the greater his reputation and, as wives are bought with tusks, so a man's greatness is judged on the number of wild harem's tusk he acquires.

From natives I learned that "the big fella, white man, with a hole in his head" had passed into this country, with a white woman and a number of porters. We got on his trail which eventually led us to a deserted camp



Schloffs' Camp at the Water's Edge.

on the stony shores of a sheet of inland water, which was evidently Schloffs' hide-out. Some miles further on we came across evidence of natives, and following these we eventually came to a large native village, which we inspected unobtrusively.

One morning, while watching the village from a tree top, I observed my old enemy in the middle of a conspiracy of natives parading with an evil-looking old native, who was evidently the chief. That day we caught a native in the forest near the village and Tabison, who spoke the language of this tribe, learned that Mark was a prisoner, and that the party that morning was to salvage the price Ingalarie was to pay for her to Schloffs in the light yellow gold that the natives somewhere near the lake had discovered and for which they knew Schloffs was searching.

That night Schloffs made a visit to his camp. As he returned to the fringe of the jungle I stepped out and covered him with my automatic. He showed no surprise but eyed me with the cold calculation of a man who knows he is in a tight corner.

"Well, Schloffs," I said, my lips drawn back over my teeth in a skull-and-crossbones grin, "We meet again."

"Well," he said, "What's the game?"

"The old game we started in that shell hole in Flanders," I said, "What's that mark on your face?"

His eyes shot red fire at my throat.

"I'm going to get you this time, you white bug with an entrancing tool. To save things I'll get you with this," getting a full cover on him with my pistol.

"What! shoot me down in cold blood," he said.

"No, you devil, you'll get your chance," I replied. After Tabison disarmed him we escorted him to a little clump of timber further round the lake, some miles from the village, to ensure that any shooting would not be heard there. At 3 a.m. we reached the spot. Tabison placed Schloffs' pistol on a tree trunk a hundred yards distant, which could be clearly seen glistening in the bright moonlight. I sent him to it and myself slipped into the jungle, and like a couple of panthers we stalked each other round that thicket.

I heard a rustle and stood stock still. Carefully feeling my path again, I backed, not allowing a foot to creep. I had gone a hundred yards in this fashion when I made a circuit, hoping to get a shot at him. My circle was now in the direction I fancied he would take, if he was not playing the same circling game that I was.

It was impossible to see more than twenty yards ahead, except in spots where the moonlight filtered through. I insisted to see the slightest movement in the forest and above all I listened for the slightest occasion of the chirping of the birds about.

And then it happened. There came a sudden hush about. Schloffs was just there some twenty yards ahead. I stood motionless, sticking my body behind the trunk of a large palm. The birds resumed their fierce chattering. Still I waited breathless. Had Schloffs got behind me? Would his bullet get me in the back? Cautiously I turned my head and fired and fired again. The forest re-echoed and smothered the sound of the shots, the birds and monkeys above screamed and shrieked.

Cautiously moving forward I saw the face of Schloffs trained in the fork of a tree, ghostly white with a stream



INGALARIE'S RADIO GOD.

The totem erected by Ingalarie at the edge of the forest to the god that made him the greatest chieftain in the New Hebrides.

Advertisers will appreciate the mention of this Paper in your Enquiries.



W. A. RADIO SERVICE SETS AND SERVICE,

21 Barrack Street — Perth.

*An Outstanding Set at the
Exhibition will be seen at
Stand 15.*

"THE JUPITER FIVE"

A Wonderful Broadcast Short Wave Receiver with automatic wave change device. World stations come in all round the dials at loudspeaker strength. Don't miss seeing it. The novice gets results equal to an expert.

We will demonstrate in your home
ALL THE LEADING MAKES
to be seen at
THE RADIO EXHIBITION.

We specially commend for your approval
THE "1932 UNIVOX" RECEIVERS.
They're value unapproachable.
SEE THEM AT STAND 15.

REMEMBER—WE ARE SERVICE
SPECIALISTS.

"Service Like a Flash"

Is Our Motto.

When your set develops trouble, we will right it
"Like a Flash."

THE W. A. RADIO SERVICE
For Sets and Service,
21 BARRACK STREET — PERTH.

Advertisers will appreciate the mention of this Paper in your Enquiries.

of red flowing from the scar on his temple. It suddenly sank down out of my sight and with a crash fell in the bushes. I stood shaking, my pistol sending a small curl of blue smoke up into my nostrils. With Tabianu I walked over and saw the last of Schloff, the traitor and my bitterest enemy. The duel begun so long ago was ended, but my task was far from finished.

How was I to get Marie from the clutches of that old devil Ingalarie? Lying in hiding all day I tried to think out a practical scheme. It came to me at nightfall. I would try a stunt with my portable receiver that my porters had brought along. First I thought of sending a short wave message with my small transmitter to the Nauru or Port Moresby wireless stations for help, but that would be too long coming. I had to effect a rescue that night.

That evening just after dusk I took my receiver and transmitter to the edge of the forest nearest the village and with maximum volume broadcast a terrifying speech, previously rehearsed by Tabianu in the native tongue, foretelling to Ingalarie fearful calamities that would overtake him and his tribe if the white woman he had prisoner in his compound was not sent away into the forest that night in the direction of the setting sun. The natives in hundreds crawled out and listened, but none ventured to the forest fringe, from where the great spirit was speaking.

Panic seized them as Tabianu waxed eloquent, and a little while later we saw my wife-to-be coming towards us slowly, as though walking in sleep. Tabianu continued, telling Ingalarie that the Great God of Lightning was pleased with him and that he would now be greater than all the chiefs who had gone before him.

All that night we pushed on and safely reached the Gilbert plantation, happy in the thought that my little Marie was safer with each mile we put between us and the village.

A week after our return we were married at the Mission House, and to this day I, like the natives of Ingalarie's village, thank the great Radio God, or their God of Lightning, if you would have it that way, for his guidance in what was the greatest trial of my life. Today on the edge of that clearing stands a totem, erected by Ingalarie to the spirit who has made him the greatest and wickedest old chief in the Hebrides.

Radio Saves Where Surgeon's Knife Could Not.

THROAT OPENED BY RADIO HEAT.

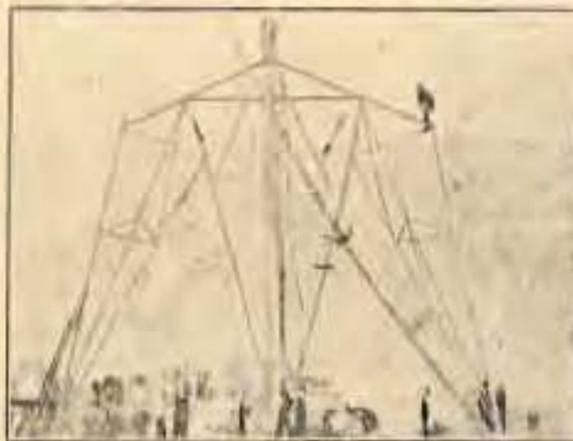
PARIS, FRANCE—A man whose throat was opened by radio waves after ordinary surgical methods had failed was reported recently to the Academie of Sciences in Paris, by the veteran experimenter in this field, Professor J. A. d'Arsonval, as a case treated by Dr. Bordier. The victim had drunk a strong solution of caustic potash, or "potash lye." The result was a severe corrosion of the tissues of the throat and esophagus so that the latter tube, connecting the mouth with the stomach, closed up entirely. The surgeon in charge of the case then made an opening directly into the stomach, and the patient was kept alive by liquid food supplied through this opening. In this condition, with the esophagus altogether closed so that swallowing was impossible, the patient came to Dr. Bordier. For a period of twenty minutes each day Dr. Bordier passed through the chest at the spot where the esophagus had grown together powerful currents of high-frequency electricity of the kind used in radio and which have been applied by Professor d'Arsonval to many medical uses. After four days a tiny passage opened through the obstruction caused by the caustic scar. In a few more days the esophagus opened altogether.

The New 6 WF.

Details of the New Station.

A UNIT IN THE COMMONWEALTH CHAIN.

THE Superintending Engineer of the Postmaster General's Department (Mr. J. G. Kilpatrick) gave some interesting particulars of the new broadcasting station which is now in course of erection at Wanneroo. The erection of the masts has already been commenced and tenders for the building to house the plant closed a week ago. Most of the apparatus required is already manufactured and waiting to be installed, and, as



soon as the buildings are completed, everything will be ready for installation and testing. It is anticipated that the first tests will be carried out at the end of August.

There will be two unstayed towers 100 feet high and 300 feet apart, each tower having four concrete foundations, eight feet square and 25 feet apart. The four feet of each aerial tower are bolted to the foundation blocks. The area covered by the ground network, 22 miles of wire in a cross-cross pattern six inches to a foot below the surface of the ground will be 720 by 360 feet. The aerial system itself is of the main line transmission type with a main line and two lines between the main line and each tower. This system has the highest efficiency of any aerial, the transmitting efficiency being exceptionally high.

The site of the building is approximately one hundred yards from the Wanneroo road and it is to be a weatherboard and fibre-cement structure. The plans provide for a battery room, amplifying room, storehouse, main transmitting room, and a room containing a pumping plant for water for the radiators in the cooling system to keep down the heat generated by the large transmitting valves. The plant to be installed is to be based on the most modern broadcasting practice in Australia with a very high percentage depth of modulation. Wave length control will be by quartz crystal, keeping the wave length very constant. The power for the station will be provided from the City of Perth mains. Means of starting and stopping the apparatus in the station is automatically controlled. At various points in the apparatus control points will be installed and should any component fail, a warning signal is given and all parts operating are put out of action automatically. This prevents any section of the plant from being used at a

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time when any other section of the apparatus is not functioning properly.

Mr. Kilpatrick added that the station was a link in the chain of stations which the Commonwealth intended to have at vantage points throughout Australia. Starting at Cairns in Northern Queensland the chain would extend southwards around the coast to a point about half-way between Adelaide and the border of Western Australia. Owing to the sparsity of the population on the plain, it would not be necessary to provide a station on the right and the chain would be picked again with stations in the South-West of W.A. and continued north. This system is based on that of the B.B.C. in England where the stations are in centres 50 miles apart, so that it is only necessary for stations to have a range of 25 miles. This system was brought in to dispel fading, which at one time threatened to be a very serious setback to radio broadcasting and, while it will be impossible to install a system on such an extensive scale in Australia, it is being modified to suit local conditions and as time goes on and money becomes available to erect more stations, links in the chain will be made. The



programme has been mapped out for many years ahead on a rather ambitious scale and all work done by the Commonwealth Government as far as radio is concerned is being done as part of this scheme which, when completed, will give broadcast listeners in the parts carrying average population a first class service. In some country districts, in Western Australia especially, it will be necessary to install stations at rather frequent intervals as compared with the population served, and in such cases the stations will be erected in broadcast programmes received by land lines from the studios in other centres.

A New S.T.C. Station for Denmark.

The Danish Government has just placed an order with the British Government for the new broadcasting station at Kalundborg which is to be one of the most powerful in Europe. This will be completely equipped and received by Standard Telephones & Cables, Ltd., makers of the renowned S.T.C. radio receivers.

"Nearer and Clearer" Strong and Full Reception.

FROM SETS POWERED WITH AUSTRALIA'S

BEST BATTERIES

Every Artist and Every Item clear and strong if your receiver derives its power from the world-famous



RADIO BATTERIES.

The Best and Cheapest, for, over a year, they reduce battery cost by over 20 per cent.



AUSTRALIA'S BEST BATTERIES

EVER READY

TORCHES, REFILLS & RADIO BATTERIES

Possess the Strength and Stamina of a Lion. Just as the Lion is the unchallenged "King of Beasts," so are these World-Famous Batteries *unrivalled for*

MANUFACTURED BY

THE

Ever-Ready Co. (Gt. Britain) Ltd.
162 PITT STREET, SYDNEY.

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ATKINS W.A. LTD.,
884 Hay Street, Perth.

BRITISH GENERAL ELECTRIC CO. LTD.,
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28 King Street, Perth.

J. R. W. GARDAM & CO.,
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HARRIS, SCARFE & SANDOVERS,
Perth.

KODAK (A/asia) PTY. LTD.,
882 Hay Street, Perth.

There is an "Ever-Ready" Battery for Every Place in Radio and Every Type of Set.

Illustrated Price List on application to any of the West Australian Distributors.

POWER

STRENGTH

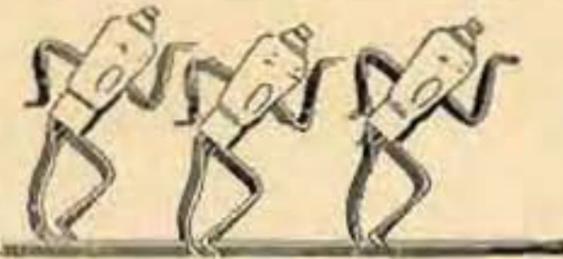
LONG LIFE

**NOISELESS
RECEPTION**

**QUICK
RECUPERATION**

**UNIFORM
QUALITY**

**ROBUST
CONSTRUCTION**



Radio in 1932

By N.H.W.

HOW we are well into 1932 and we find that more and more of our neighbours have become radio-minded until nearly all of them have a radio receiver of some kind. Alas and alack, we find that the large majority have their shortcomings, and we are troubled when being "entertained" by their radio to offer a few hints on a subject about which we know a little, and they apparently are devoid of the slightest knowledge.

Upon enquiry it is usually found that the set owner has had the same valves in his set for three or four years, a fact of which he is duly proud. We then point out that no valves can be designed for efficient operation

prolongedly caricatured cars you see in comic papers. Every technical apparatus gets old in course of time and radio valves are no exception to this rule! Outwardly they still retain their beautiful "silver appearance" — on this they are admittedly superior to the worn-out car, but the inside is little better than the jaded automobile. The moment you replace these old valves by new ones of the same type you will notice a great improvement in the quality of your reception. But this improvement alone would not be sufficient; if you are prepared to spend a certain amount on the modernisation of your radio set you should see to it that the improvement is such as to warrant the expense.

To meet this requirement the radio industry has brought out new types of valves which can be used in place of the old ones employed hitherto. We will just give a few examples: Suppose that up to now your set has been operating with a normal screen grid valve. This valve was probably constructed several years ago, but in the meantime a new valve, E42Y, has been designed



You see, it can be done without high technical knowledge!

over such a long period. The reply is usually as follows: "New valves are better reception? Why, I don't understand the things at all. I only know that my set is working alright and that it has four valves inside it, but none of them can be altered!"

That's what most people think; they imagine that if they want better reception they may have to alter the wiring or tinker about with a soldering iron and a pair of pliers. But radio technique does not require you to do anything of the kind. All you have to do in order to adapt your set to modern broadcasting conditions is to take out the old valves and put in new ones which your radio dealer will supply. What advantages are offered by having new valves in your set? What types of valves do you require? What do you have to know when buying them? These are simple questions which we try to answer.

You will know quite well what a motor car looks like when it has "had its day." It greatly resembles the



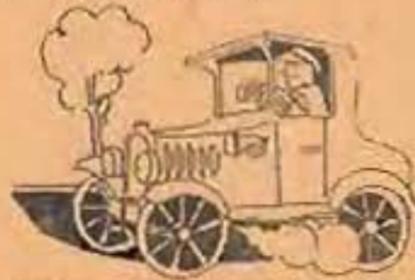
A little calculation shows that new valves will increase the amplification of your set fivefold!

in the Philips laboratories, a valve that can be used in the same socket of your set and will give three times as much amplification. If your old valves are worn out through having seen many years' service, this renewal will mean fivefold amplification! A further example: The second valve in the set may be a standard detector. Put in its place a new E424 and you will triple the amplification of the set! A little mathematics will tell you

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that the total amplification of the set will then be three times better than with the old valves. This is not merely an amplification calculated by an engineer or a mathematician, but one that you can hear with your own ears!

You may feel quite satisfied with your radio performance at present, but if you are still driving an old Ford car dated 1922 you won't be able to understand why a new model Rolls-Royce runs better. How can you say that your radio is better than your set has deteriorated as the valves become older, but that it was so gradual as to be unnoticeable.



If you are still driving an old 1922 Ford, you won't be able to understand why an eight-cylinder Rolls-Royce runs better!

What Valves are Required in Your Set?

For operation in battery-fed sets, these types of Mini-watt valves have been designed to be inserted in any old receiving set without involving alteration and will bring about an unheard-of amplification. These are: A screen-grid valve A442, a detector A415, and last but not least there is a splendid means of improving the quality and performance of the set, viz. by using a Mini-watt Penthode B443.



There is still a way of improving the performance and quality of your radio set, and that is by having a Philips Penthode mounted in it!

The mounting of such valve is, of course, not so simple as that of the other two, and you will very likely have to call on your radio dealer to have the necessary reconstruction carried out. But it won't take him long to do the job; he will merely have to connect the side terminal of the B443 to the loudspeaker terminal that is now on the anode of the power valve. Exilas valves of this kind will turn cheap "local" receivers into high quality receivers of very respectable performance.

Advertisers will appreciate the mention of this Paper in your Enquiries.

If you are operating a set that only requires plugging into a socket of the electric lighting system, you can improve it considerably by means of the valves E432Y and E424, or by 2.5 volt sets with valves from the new 2.5 series.

All this is merely a little information which you need not worry about greatly, as your dealer can tell you what valves to use in place of your present ones which have served their useful purpose.

Write down on a piece of paper the type-numbers of the valves you have been using (indicating the position in which they were inserted in the set) and take this slip of paper along to a good radio dealer. When you ask him for improved Philips valves he will select the types you require and there will be no need for you to fiddle with the mysteries of radio tables. Tell your dealer at the same time to give you a postcard for the final stage (unless the set already has a postcard), and ask him to make the necessary reconstruction himself at your home.

If you then only place types of new valves have to be inserted in place of the old ones there will be no possibility of error and the set will have been adapted to modern broadcasting conditions without involving any heavy expense.



Experts, stop! These lines are for laymen only!

A weak and unobtrusive radio set will thus have been turned into an improved modern set with which even the most successful athlete can be equated far better than ever before! By the modernisation of your set is by no means such a difficult matter as you had perhaps supposed; it can be done without any scientific knowledge.

Radio for Cavalry Men.

The United States War Office is equipping cavalry patrols on the Mexican border with radio receivers. The set is situated at the back of the saddle. The lance, with a copper wire, acts as an aerial. Signals sent out by wireless posts on the border can thus be picked up and entangling activities on any section of the border can be checked by the prompt despatch of a patrol to any point at a moment's notice. Each man is constantly making the most out of radio, for in addition to the use of radio on the border, it is used in hundreds of Police Districts to hear criminals, and in many other ways it is proving useful to the nation, other than as an education, entertaining and advertising medium.

100% EFFICIENT.**The New "RITZ"****A.C. THREE**

A new revolutionary A.C. Set with remarkable selectivity and wonderful volume, with the tone of a grand church organ.

LOOK FOR "THE RITZ" ON STAND 18.

It is undoubtedly the finest three the West has ever seen. It is months ahead in design of anything on the market. It has an undistorted output of 2.5 to 3 Watts. A new and better type of reaction control. Volume control permits reduction without distortion.

There will be much to see at the Exhibition, but seeing isn't all, so before you buy hear the New "Ritz." With pleasure we will demonstrate it in your home. There is nothing in its class to compare with it at the price.



THE RITZ THREE.

Housed in a beautiful two-tone full Console Cabinet, fitted with the famous Jensen Dynamic Speaker, it is beyond doubt the West's most outstanding three valve A.C. set. Arrange with the attendant for a demonstration in your home, it will delight and positively amaze you.

REMEMBER — For all Electrical Appliances, Philips Lamps, Radio Receivers, Valves, and all Radio Components —

GO —**J. R. W. GAR**

138 MURRAY STREET, PERTH.

100% EFFICIENT.**"VOLTA"**
RADIO BATTERIES

Sooner or later you will realise that these perfected radio batteries give —

MORE POWER — LONGER LIFE — BETTER SERVICE.

"VOLTA"
The
Dependable
Battery.



"VOLTA"
Australia's
Finest
Battery.

NOW NO DEARER THAN ORDINARY BATTERIES.

The Robust Internal Construction — the Perfect Insulation — the Heavy Zinc Containers that have made these the Perfect Battery — can be inspected at our Stand at the Exhibition.

SEE THE "VOLTA" RANGE ON

STAND 18

See them — buy them — try them, and then you'll always use them.

"VOLTA"

"THE LONG LIFE RADIO BATTERIES."

— TO**DAM & COY.**

STANDS 3 and 18 at the EXHIBITION.

"B" CLASS STATION FOR BUNBURY.

LICENCE GRANTED BY P.M.G.

The Postmaster General's Department in Melbourne has granted a licence for the erection of a B Class Station at Bunbury, and probably a company prospectus will shortly be issued to obtain the necessary capital to proceed with the venture. We understand that one of the directors of the old JAK company in Melbourne will shortly be visiting the West in connection with the scheme. Little information is at present available, other than that the licence has been approved, subject to certain conditions.

It certainly would be a great thing for the South-West if a good B Class Station was erected at Bunbury, but can a station there be self-supporting, will be the question that will come to the minds of business. Our metropolitan B Class Stations have had a hard fight to come through, but they have and with flying colours, too. Their programmes have been good and they have proved very popular with listeners, and consequently advertisers have realised their value from an advertising point of view and they are now firmly established, but it has cost a lot of money to educate the business people to the value of radio advertising. The question is will the business community of Bunbury and the South-West be behind the station, if they and Perth and Eastern State advertisers offered their support, then there is every prospect of the Bunbury station being a profitable addition to the air. Still, let's hope it will eventually, for it certainly will be a good thing from the listener's point of view.

SPECIAL STATIONS FOR HIGH CLASS PROGRAMMES.

The Postmaster General's Department is considering the advisability of establishing a station in each capital city for the broadcasting of high class music, lectures, educational matter and such other matter as does not appeal to the average listener. These stations will be classified as C Class Stations, not inferring that they will be high class stations by any means, but they will serve the listeners who appreciate high class music, talks on subjects such as National Education, Science Talks, Lectures, etc., that could not be put over from the A Class Stations as they would be boring the average listener, and could hardly be regarded as entertainment from their point of view. Government has been made by technical societies and other learned bodies that little provision is made for broadcasting matter suited to the more cultured musical, artistic and literary tastes.

Mr. Fenton stated that when the new Commission had taken over and had things running smoothly an effort would be made to establish a C Class Station in each capital city to serve these listeners. Many would at times, no doubt, have in and would probably cultivate a taste for high class music, art and literature. Such stations would go far towards educating the public and improve the educational standard of citizens.

Mr. Fenton is certainly considering the many phases of broadcasting from a national standpoint, and this and his proposal to use the British Columbia recorded programmes indicates that he realises, like other national leaders throughout the civilized world, what great benefits can be derived from broadcasting by the people.



HELLO! HELLO!!

Station

6WF.

6ML.

and

6PR.

and the producers are contemplating that there is a dearth of good stories. We venture to suggest that they are wrong. There is no shortage. The first essential of

The Station Page.

REVOLUTION IN DRAMA.

Whoever they may be, the producers of radio plays at 6WF have some of the right notions about the coming revolution in drama. The latter is a condition which has been prophesied and expounded in various quarters for some years, and it is interesting to note its steady progress at 6WF—almost the last place from which one would expect a revolution to break out. There is a prevailing fallacy that drama nowadays depends upon the stories and plots. Theatrical managers

the lead given by broadcast drama—they are concentrating upon them. By so doing, they will create a revolution in dramatic presentation. An instance of this new art will be found in the forthcoming radio production of "The Loss of the Marie Celeste" on April 21st next. This play, which will be produced by Paul Daly, has been described as the RBC's best effort. It offers a solution of one of the sea's most baffling mysteries. It owes its conception to the following notice in Lloyd's List of Monday, 16th December, 1872, which reads as follows: "Tribular, 13th December, 1872: 1.45 p.m.—The Marie Celeste (Australian brigantine) from New York to Genoa with alcohol has been found derelict at sea and brought here to the care of the Del Gratia (British brigantine)." One of our best radio dramatists chose this for his theme. Listen in to 6WF on 21st April 1932 and hear the intensely dramatic play he has made of it.



The Sydney Bridge lighted with Philips lamps (normal illumination). The lines on the water mark the passage of illuminated water craft.

dramatic construction is a theme and producers should concentrate on that. Every day for thousands of years past, something has happened that contains the raw material for a dramatic story. Take any worth while happening at any time or any place, and let that be your theme—radio dramatists are discovering that if a theme is made dramatically clear and is dramatically understood, the story will practically construct itself. We had evidence of this in the production of "Squirrel's Cage" at 6WF last year. This had no plot whatever—yet it told an interesting story. The author chose an ordinary theme from everyday life—held the mirror up to nature and by the aid of radio, cast its reflections into the homes of thousands of listeners in all parts of the Commonwealth. Writers for the legitimate stage are beginning to follow

RADIO VOCAL CHAMPIONSHIP.

A record number of entries have been received at 6WF for this interesting competition. Auditions commence shortly. Semi-finalists and finalists will be heard over the air later. We are prepared to venture a small wager that some dark horses will be un-seated.

LINKING UP THE OUTBACK.

With the erection of the new high power station in Perth, another link will be established in a network of powerful transmitters whose existence will be of inestimable value to the listener in remote corners of the Commonwealth. When the new 6WF joins the new relay stations at Crystal Brook and Currama, it will be found that between them they will provide much additional and



RADIOLA 55 E

ON STAND

19

At the Exhibition

This Magnificent New Push Series 1932 Radiola is the Crown of 18 years' leadership in Radio—The Supreme Achievement of Amalgamated Wireless.

An Extraordinary Receiver with an Extraordinary Performance at an Ordinary Price.

Intimate Reception with an Indoor Aerial.

No Interference and No Noise.

We will be pleased to demonstrate this magnificent New Radiola in any home. Arrange at the Exhibition for a Home Demonstration with the Attendant on STAND No. 19.

A. D. URQUHART

RADIO AND ELECTRICAL CONTRACTOR.

23 High Street ——— FREMANTLE ——— 61 Market Street.

Full stocks of all components, Valves, Batteries, Speakers, etc., always on hand.

Advertisers will appreciate the mention of this Paper in your Enquiries.

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Liverpool Cables
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Westinghouse Rectifiers
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Chanex Resistances
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915 HAY STREET ————— PERTH
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Address correspondence to Box J 716, G.P.O., Perth.

Buy W.A. Products and Help Employment.

JUDGE FOR YOURSELF!

After having tried all others,
NOW TRY THE BEST:—

EVCO
TOMATO SAUCE.

MADE FROM A FAMOUS FRENCH RECIPE. FACTORY: 288 OXFORD STREET, LEEDS, ENGLAND.

alternative broadcast late for a number of listeners. Already reports are to hand regarding excellent reception from 5CK and 2CQ. Country listeners in W.A. and those in the outer metropolitan area will feel the benefit of this powerful trio very shortly.

THE RADIO EXHIBITION.

The Radio Exhibition to be opened tomorrow night will be remarkable for the number of gadgets, inventions and improvements which have been added to the modern radio set. We have heard of one—a tuning device which will revolutionise short wave operations. As we do not know whether this information was given in confidence, we will leave it at that, but look out for it. By the way, 6WF will be well represented at the Exhibition.

RADIO DANCES AT 6WF.

These popular informal little affairs re-appeared at 6WF on 9th April. The rhythmic vibrations of a specially selected dance orchestra added to the pleasure of the occasion.

"THE MARIE CELESTE."

Regular listeners are already familiar with this intriguing mystery of the sea. The facts have been told from 6WF, but it is still a mystery. One of our foremost radio dramatists has offered a solution and this will be propounded on 21st April, when the A.B.C. Players will produce the dramatic play, "The Loss of the Marie Celeste."

ANZAC DAY AT 6WF.

The Australian Broadcasting Company has again concentrated their efforts upon a suitable programme in commemoration of Anzac Day and a Special Presentation has been arranged which will include the first radio performance in Australia of "The Menin Road," a play which has been specially transcribed for the microphone by a new author whose faith for realism brings us face to face with one of the most powerful incidents of the late war.

HUMANITARIAN VALUE OF RADIO.

Almost daily the A.B.C., through 6WF, broadcasts messages and enquiries for persons whose presence is required at the bedside of sick relatives. The messages are always of an urgent nature, and it is very seldom that they miss their mark. A recent case in point has brought the following letter: "222 Holland street, East Fremantle, 28/3/32. Manager, 6WF, Perth. Dear Sir:—Please accept my sincere thanks for your broadcast messages to my brother. It was only by your valuable efforts that he was found. He also wishes to sincerely thank you. Yours sincerely, Leo Carlson."

MORE ABOUT UNCLE TOM.

One of the most noteworthy programme features from 6WF this year was the presentation of "Uncle Tom's Cabin." Apart from receiving splendid praise from his

Press, it has been the means of bringing to light some very interesting facts relating to Uncle Tom himself and the bad days of slavery. The latest link with these unfortunate happenings is quoted here: "Appreciating the broadcast of Uncle Tom's Cabin and article in today's *Irish* (17th March) I feel I would like to add to Mrs. New's reminiscences of old days. In 1826 I heard Uncle Tom give his life story at Spargeness Tabernacle to a packed audience. A very tall pathetic figure with a head of white hair. A man, no doubt, who had been very powerful in his youth. Tom remembered from when he was five years old how his father was nailed to a tree by his right ear and then had it cut off for protecting his mother when she was being ill-treated by a slave-driver. His mother used to take him to meetings on Sunday and how he used to howl when she combed his hair, as this was only done once a week. Tom, while in London, was presented by Mr. John Lobb to Queen Victoria and family. Yours faithfully, Elizabeth Pennington." And yet another letter has been received from Mr. Robert Hall of Newcastle: "Seeing in Thursday's paper, a letter from Mrs. New, whose husband had shared loads with Uncle Tom; I also had that privilege in the year 1826 in the City Hall of Glasgow. Yours faithfully, R. Hall."

RADIO STARS AT THE EXHIBITION.

In connection with the Radio Exhibition at Crystal Court this month, the A.B.C. has arranged to present a grand radio concert on 19th and 22nd April, 1932, when most of the popular radio entertainers from 6WF will be heard and seen. The artists include Irene Stancliff, soprano; David Lyle, tenor; Nora Coakstad, pianist; Eileen Hart, contralto; Paul Dady, entertainer; Lulu Pötter, soprano; Harry Graham and Mrs. Dorothy Graham, entertainers; Keith Watt, tenor; Thelma Howard, soprano; Margaret Sharp, violinist; and Phyllis Blott, pianist.

PROGRESS OF RADIO.

As time goes on the onward march of Radio quickens in tempo until at the present moment one wonders what 1933 can possibly have to show us in the way of wireless improvements. The outstanding feature of the progress of Radio is the manner in which the All Electric Set has been developed. Due to experiments made by the world's greatest sound experts, the pinnacle would appear to have been reached in tonal perfection, simplicity of tuning and general operation. At the Radio Exhibition there will be seen over forty different types of all electric sets, each incorporating some different feature calculated to improve reception by the avoidance and correction of previous shortcomings. It is pleasing to record that the Radio industry in this State is enjoying a decided boom. There are now over 500 people directly employed in the industry, and this figure is exclusive of the many allied operatives whose labour depends to a great extent upon the present boom. An incentive to the prospective purchaser is the fact that sets with reliable credentials can

Advertisers will appreciate the mention of this Paper in your Enquiries.

A Table of Addresses From 6WF.

"The University of Western Australia"	Professor A. D. Ross, D.Sc.	April 10	7.0 p.m.
"The Art of the Aborigine"	G. C. Benson	April 10	8.45 p.m.
"Modes of the Moment"	Mrs. Dorothy Graham	April 11	11.30 a.m.
"Health"	Dr. H. M. Strong	April 11	12.0 noon
"The Dawn of Science"	Professor R. G. Cameron, M.A.	April 11	7.15 p.m.
"Kitchen Craft"	Mrs. Dorothy Graham	April 12	11.30 a.m.
"Popular Science"	Hal McKail	April 12	6.25 p.m.
"Characters who have made History"	Dr. J. S. Battye, B.A., LL.B.	April 12	7.15 p.m.
"Model Aero Club"	J. G. Paterson	April 13	6.25 p.m.
"English for this year's Junior University Exams"	Anita Fitzgerald	April 13	7.15 p.m.
"Wise Housekeeping"	Mrs. Dorothy Graham	April 14	11.30 a.m.
"Home Crafts"	Victor Ray	April 14	12.0 noon
"This Week's Track Work"	A.B.C. Racing Commissioner	April 14	1.2 p.m.
"Sport"	Leo Ryan	April 14	6.45 p.m.
"Jottings from Here and There"	Mrs. Dorothy Graham	April 15	11.30 a.m.
"Racing Anticipations"	Roszell Sandeman	April 15	7.15 p.m.

now be bought at prices to suit all pockets. The Australian Broadcasting Company watches every phase of Radio progress and with the increased interest being taken, the programme director goes very carefully into the requirements of the various tastes to be catered for.

FOOTBALL BROADCASTS

The A.B.C. has made arrangements for the exclusive rights of broadcasting descriptions of all the principal football matches to be played during the coming season. Following upon his unqualified success in this direction last year, these descriptions will be handled by Charles C. Wicks, a popular member of the 6WF staff. Mr. Wicks has more than a superficial knowledge of the game. He has played it quite a lot himself and anyone who listened to his brilliant descriptions last year must have been impressed with the fact that he knows what he is talking about.

WEDDING BELLS AT 6WF.

On April 7th Charles C. Wicks was married to Miss Violet Young. Mr. Wicks, who is one of the most popular announcers at 6WF, is also an expert at describing sport and his football commentaries are outstanding features of the winter months. Strange to say, one of the last pieces announced over the air by the genial Charles was entitled "Wedding Bells." Perhaps when he returns from his honeymoon, he will give us "You can't always be young."

POPULARITY OF COMMUNITY SINGING.

Singing is the greatest tonic known for jaded spirits. In times of joy people sing—in times of distress and depression people seek to cast the mantle of gloom by giving voice to some optimistic effusion in song. At the first Community Concert of the season held at 6WF Studios recently conducted by Paul Daly, the concert hall—which has a fair capacity—was crowded out. Unfortunately, in spite of the fact that everything that looked like a seat was brought into service, quite a number had to stand. However, the latter did not seem to mind as the concert went with a swing. How the audience sang—and how they laughed. A large number of people rang the studio at the close and spoke in glowing terms of the programme. Many letters have also poured in to 6WF from country listeners who appreciate this feature. A suggestion was made during the evening that it would add considerably to the pleasure of listeners if they, too, possessed a copy of the A.B.C. Songster which is an exclusive

A.B.C. publication, price 5d. It contains the words of all the favourite old-time songs and may be obtained from the Studio for 7d. (post free). With a few books scattered among the party it would be possible for listeners in the remote parts of the State to gather together and join in the singing.

CELEBRITY RECITAL.

The Australian Broadcasting Company again showed great judgment in prevailing upon Miss Nanette Evans and Mr. Anderson Tyer to give a radio and piano recital at 6WF. These world renowned musicians have just arrived back in Australia and will shortly give recitals in the Eastern States. The recital on Monday April 12th, was a brilliant example of technique and musicianship. Miss Evans and Mr. Tyer fully justified the good things said about them in the English press. Indeed the critic of The Daily Telegraph one of London's foremost musical commentators, remarked that Miss Evans was the greatest lady exponent of the violin of modern times. These artists are ranked as the most successful broadcasting musicians in the B.B.C. and it is hoped to secure them again for 6WF before they pass on to the Eastern States.

NEW ARTISTS AT 6WF.

Among the new artists to appear at 6WF are Miss Nora Coakland, a brilliant West Australian pianist who displays excellent technique, and Leo Chung, a violinist of outstanding merit with English and Continental experience.

HISTORIC EVENT BROADCAST.

The programme of events to be broadcast by 6WF in connection with the official opening ceremony of the new West Australian University are as follows:

April 12th—At 11 a.m., opening ceremony of the New University Buildings by Miss Patricia Hackett, 8.15 p.m., Grand Opening Concert by the Fremantle Orchestra Society and the University Music Exhibitors.

April 14th—8.15 p.m., Grand Combined Concert by the University Choral Society and the University Music Society.

April 15th—8.15 p.m., University Students' Graduation Ball.

April 16th—8.15 p.m., Grand Concert by the Metropolitan Symphony Orchestra and the University Music Exhibitors.

RADIO COMPONENTS

Tremendously Reduced!

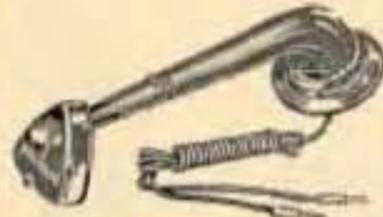


27/6 Headphones,
15/11

(As illustrated) Edison Headphones, 400 ohms. Brilliant Phono. Woodruff's well constructed. Usually 27/6. **Boans Price, 15/11.**

12/6 Variable
Condensers — 8/6

Variable Condensers, very popular and equal to the best. Usual price, 12/6. **Boans Price, 8/6 each.**
Valve Holders, "Marconi" UX or UX base. Usually 1/6. **Boans Price, 10d. each.**



75/- "Paillard" Pick-Ups — 39/11

(As illustrated) Pick-Ups, the genuine "Paillard." A very efficient and popular pick-up at a bargain price. Usually 75/-. **Boans Price 39/11.**



22/6 Penthodes,
12/11

(As illustrated) Valves, the latest 2G Penthode, guaranteed in perfect order and fresh stocks. Usually 22/6. **Boans Price, 12/11.**

24/6 Trans-
formers — 18/9

"Agronic" Transformers, Ratio 3 to 1. This make is extremely popular. Usually 24/6. **Boans Price, 18/9.**

Electrolytic Condensers, 1 solid, 400 Voh Max., working D.C. Usually 8/6. **Boans Price, 7/3.**

BOANS

"PERTH'S GREATEST EMPORIUM"

SCOOP FOR 6WF.

When the news came to hand that the famous *Blue Lap* had passed away, 6WF was the first to circulate the news, which they did in an announcement from the A class station at 11 o'clock in the morning. It certainly was a news item for the wireless, but after all it doesn't hurt the newspapers, but on the contrary makes people anxious to see the evening or morning paper for full particulars as to how it came about. In this particular instance, instead of being an opposition to newspapers, it undoubtedly proved a blessing, for on that particular evening everyone was rushing the newsboys for a copy of *The Daily News* to read all about the demise of Australia's Wonder Horse, the great *Blue Lap*.

A SOUTH AUSTRALIAN REPORT.

Among the many reports received on 6ML's boxing descriptions is the following from South Australia:

c/o Five Station, Berri, South Australia,
Friday, 1st April, 1932.

To 6ML, Perth,
Mungro Limited.

Dear Sirs—

Once again I have much pleasure in reporting on your broadcasts which I receive here at Berri (S.A.) excellently on my five valve A.W.A. set. This evening between the hours of 11.5 p.m. and 12 midnight South Australian time, I enjoyed immensely your broadcast description of boxing, especially the 11 round fight between Arthur Dennis and Butler. I must commend your describer upon the great description he gave. I could follow the fight quite clearly, thanks to 6ML management. Your power and volume were O.K. Good LS strength. Tone excellent, modulation good. The weather here was not very favourable, but nevertheless, did not interfere with reception of W.A. stations. Also I would like to say that you have

a very efficient advertising scheme which does not hurt the listener, but just harmonises, and I should say that Heywalkin Show Co. would be very pleased with the way you handle their advertising campaign. Your station is quite equal to any Eastern B Class Station in volume, power, tone and modulation that I receive here at Berri, although one or two local stations, interfere greatly when in operation. Thanking you and wishing all at 6ML, every success and very best wishes.—Respectfully yours, FRANK D. CARTER.

"DIGGER MEMORIES."

South Perth possesses a very fine *Diggers' Dinner* Party in the White Bangs and 6ML has arranged for this talented company to present a programme of "Digger Memories" from the Studio on April 23rd. This programme will be very appropriate in view of the proximity of Anzac Day, and the White Bangs will help *Diggers* to recall some of the more pleasant memories of war days.

6ML AT THE EXHIBITION.

Commencing at 9.30 p.m. on April 19th the opening night of the Radio and Electrical Exhibition, 6ML will present at Temple Court Garage twenty minutes of instrumental music featuring the following well known Perth musicians: Mr. C. A. Huddle (piano), Mr. S. T. Morley (cello), and Mr. K. Cummings (violin).

On Thursday the 21st it has fallen to 6ML's lot to provide the forty-five minute musical programme at the Exhibition, which will also be broadcast. The Western Australian Military Band under the baton of Mr. Hugh Dasthan will provide the programme on this occasion.

Those of the public visiting the Exhibition will have an opportunity of seeing just how these programmes are broadcast under ordinary studio conditions.

SHAKESPEAREAN ANNIVERSARY.

Shakespearean Societies will be celebrating his anniversary during the week ending April 20th. So successful have 6ML's Shakespearean productions been and so insistent the demand for more, that it has been decided to present Shakespeare's, undiluted comedy, "Twelfth Night," from the Studio on April 20th. A strong cast has been arranged and the production is in the capable hands of Eric Donald, 6ML's chief announcer.

A NIGHT OF RECORDED HUMOUR.

Some time ago one of our B class stations gave a full programme of recorded music and a great happy night it was. We have received a number of letters from readers asking us to arrange another such night. Well, we don't have anything to do with the arranging of the programmes, but to our B class station managers we would say, if you want to please a lot of listeners, and we know that is your constant aim, well, what about another of those nights of fun and frivolity? There will be another one, readers, for the B class stations are out to please you.

ATHLETICS FOR WOMEN.

On Wednesday last Miss Jean Mills, late of 2BL and JUV, gave a talk to the members of the 6ML Fox-Hays Club. Miss Mills is well known to Sydney listeners, and has had a wide experience in all branches of physical culture, athletics, etc. She will broadcast again next Wednesday at 6.45 p.m.

Athletic Clubs for both men and women are being formed in connection with the Radio Club. Further particulars can be obtained from 6ML.

6ML'S WOOL SESSIONS.

Each Monday night at 8 o'clock 6ML is broadcasting a special session to assist the Wool Week Campaign. Prominent members of the Wool Week Committee open each programme with a short talk. The series follow on a rather successful Local Products weekly programme which has just been concluded.

6PR REACHES N.Z.

During the past fortnight no fewer than 10 unsolicited letters have been received from listeners in New Zealand, Victoria and South Australia. All of these comment very enthusiastically on the excellent reception of Station 6PR in their respective districts.

CHILDREN'S PARTIES AT 6PR.

The children's parties conducted by Uncle Peter and Aunt Alice from station 6PR on Saturday afternoons are proving a huge success. Already they have a large number of staunch young supporters and the musical and educational talent which is displayed by some of these children is really amazing. In fact, many of these items would do credit to an experienced microphone performer.

YALUMBA HOUR.

Yalumba Wines Ltd. are to be congratulated on their choice of a session to sponsor. Metropolitan listeners are extremely grateful to them for their Thursday night dinner music sessions. On the air from 6.30 to 7 o'clock, it comes at a time when light music is required—that is, just before and during dinner.

"HIS MAJESTY" AT 6PR.

A one-act play, "His Majesty," will be broadcast by 6PR from the Wireless Exhibition on the evening of Wednesday, April 20th. With a cast which includes two well-known professionals, James Grant and Vivienne Osborn, this play should be well worth tuning in to.

ANOTHER SHELL PROGRAMME.

On May 3rd the next of the Shell Radio Parties will be broadcast from Station 6PR. From all indications, it seems that this is to be a truly delightful function, surpassing even previous Shell parties for excitement and brilliancy. Listeners are all invited to tune in on that evening and look for a thoroughly good time.

6PR ADVERTISING PAYS.

Convincing proof of the efficacy of 6PR as an advertising medium was given in the following letter received from a listener last week:—

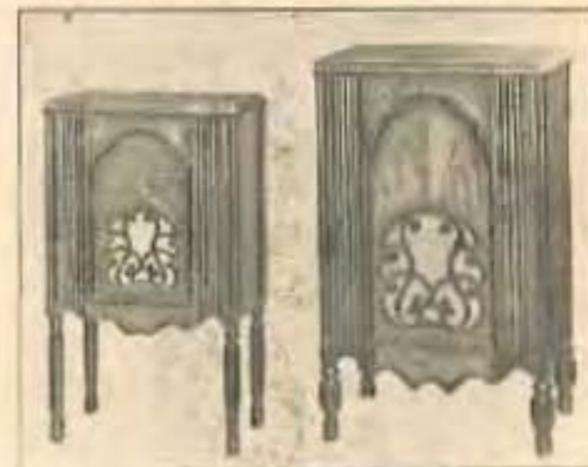
"Owing to your persistent and unending advertising of Perol, I decided to give it a trial. I have done so, and I must say I was more than satisfied—I was astonished—I tested it with a white suit worn by an ordinary boy of seven for a whole day—and to my surprise it came out looking quite new. You are at liberty to use this letter as a testimonial both for Perol and 6PR's advertising, but, of course, I don't wish my name used."

Mullard Master Valves on Stand 2.

The popularity of the New Mullard A.C. and D.C. valves is sweeping Australia. Set owners are realising that a team of "Mullards" means greater distance, volume and tone from their receiver. This is no wild statement, but a proved fact, and if you have a friend who is using them he will confirm this for you. When you have occasion to renew your valves, just try "Mullards" and notice the difference. The full range of the New Mullard "Master" Valves will be on exhibition at Stand No. 2, Carlyle & Co., who are the W.A. distributors of these fine British radio valves.

RADIO CABINETS

A good set is worthy of a good cabinet—it is worthy of an ATKINSON & RICHARDSON CABINET.



Two separate types we are now manufacturing for the local trade.

There is no better cabinet on the market than an Atkinson and Richardson cabinet, and it is of local manufacture, too. Every type of cabinet manufactured. Ask that price list be issued to an A. & R. Cabinet.

ATKINSON & RICHARDSON,
RADIO CABINET MANUFACTURERS

22 Via Street, Perth, Western Australia. Phone B 3326.

Just Commonsense in Regard to Buying a Set

—Seeing sets at Exhibitions is no indication of how a set will perform: You cannot buy a set on appearance!

"ASTOR" RECEIVERS, ALWAYS LEADERS, AGAIN LEAD THE WAY WITH THE NEW 1932 MODELS.



BEAUTIFUL CONSOLES, BUT IT IS THEIR PERFORMANCE THAT WILL CONVINCE YOU OF THEIR SUPERIORITY.

THE NEW 1932

ASTOR RADIO

THE SAME WAY TO BUY.—See and hear as many makes as you like, but don't fail to ask your Dealer to demonstrate these wonderful New 1932 "Astors" Radios in your home—Test the receiver while you are going to see it. Your Dealer will prove their superiority.

Full Console Models from £17/17/-.

W.A. Factory Representative for Radio Corporation—

HAROLD E. PEAD - 935 Hay Street, Perth

Advertisers will appreciate the mention of this Paper in your Enquiries.

Advertisers will appreciate the mention of this Paper in your Enquiries.

“UNIVOX”

The Star Attraction

RADIO VALUES EXTRAORDINARY.

SEE THEM ON
Stand No. 2



The "UNIVOX," featured at many stalls at the Exhibition.

Featuring:

- 12 Months' Free Valve Insurance.
- 6 Beautiful Cabinets to choose from.
- 4 or 5 Valve Chassis.
- 11in. Full-powered Dynamic Speakers.
- Full Vision Illuminated Dials.
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- Aerial Selector.
- Variable-Mu, Screen Grid, and Power Penthode Valves.
- Hum-free Power Pack.
- 100 per cent. Shielding.
- 1500 Volt Test Condensers.

*The Greatest Radio Set Values Ever Offered.
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W.A. WHOLESALE DISTRIBUTORS:

CARLYLE & COMPANY

915 Hay-st., Perth ————— 278 Hannan-st., Kalgoorlie.

Advertisers will appreciate the mention of this Paper in your Enquiries.

Short Wave Notes.



ME AND MY LITTLE RADIO —NRH.

NRH, a short wave station that has been picked up by many short wave fans here, is referred to in some literature received by Mr. H. Jackson junr. from the owner and operator of the station, Amando Cespedes Marin, as "Me and My Little Radio NRH." This gentleman, whose station is situated at Heredia, Costa Rica, evidently spends a lot of money on printing, for he went along quite a budget of interesting matter in English "as she is spoke" in Costa Rica. The subject matter is also printed in several other languages. He is evidently a great enthusiast. Here is just an extract from one of the printed sheets. This is preceded by an illustration of a rather fine home, his transmitter, and his daughter who evidently entertains listeners.

"DIRECCION AMANDO CESPEDES MARIN,
40 APARTARO, HEREDIA, COSTA RICA, A.C.

"The NRH Mail Club is the continuity of friendship between the listener and the else ardent fans reporting to NRH its regular programme broadcasted every night from 9 to 10 Central Standard Time. We will mail you a list of the letters and all you have to do is to mail the copy to any fan friend anywhere and then some friend will then send it again to someone else and so on till we can make a good chain in behalf of radio culture and fraternity."

Senor Marin claims to be the pioneer of short wave broadcasting in Spanish in Central America. In the printed literature sent, he evidently receives communications from short wave enthusiasts in almost every part of the world, and he has recently written a book of 280 pages, which has been printed with 70 illustrations. This is printed in English and judging by the titles to the 46 chapters printed hereunder, it looks as if it would be well worth reading. The book is entitled "Me and My Little Radio NRH" and Senor Marin is asking the equivalent of 35 American dollars to send the book to short wave fans who have been in touch with him.

Short wave fans certainly do get some queer correspondence and Marin's letter is no exception. Well, here is his printed letter; read it for yourself.

"My Dear Radio Listener:

On another page, you will find just a few random letters of friends to NRH, voicing their enthusiasm as to the printing of my Book.

"The total number of pages will be over 250, printed on good "verge" hand made paper; the illustrations will show the many HOWS around this Station, the most feeble powered on earth yet, but the biggest armour-bearer, defying that noble enchantment of knowing how to please.

"It will be a pleasant book; very lively story, very queerly in its English of my own, but with a touch style to be understood by you all; it will be in fact, a very interesting description of little NRH from its beginning to this date—and yet, with enough flavour to make you read it more than once, besides your recommending, to others, to do it over and over again.

"The book therefore will be entertaining, bounded to be not in your library but in front of you always, as a clear demonstration of the powerful words "I Will," moreover, when you know, that the book is being printed through contributions of listeners and admirers in the American Continent, which do help to defray its cost by pre-subscribing with a fixed amount of Two Dollars.

"The special edition, after being printed will be worth \$3.50 per volume and I urge you to take advantage of the offer, thus helping a bigger popularity to the self-made Radio NRH.

"We will print an excerpt from your letter, at the bottom of any page in the book, and as soon as printed,



Senorita Lidylia Cespedes Arias Marin, the 17-year-old daughter of Senor Marin, owner and operator of NRH, whose singing has been heard by short wave fans here.

the copy will be rushed to you, under an official Government envelope from Diplomatic Mail. The copy will be signed by myself dedicating some phrases to you with my own hand-writing. All the nice "excerpts" will be the most reliable NRH friends Directory, the very foundation keystone of the smallest Station on Earth.

"Hoping to receive your help to defray the cost of printing, as we are not making any money in that fine Souvenir Book, I repeat myself, very sincerely,

AMANDO CESPEDES MARIN."

A footnote is added stating that the book has now been printed and is available. Well, if you think it is worth a little over a pound owing to the adverse exchange

Advertisers will appreciate the mention of this Paper in your Enquiries.



AUSTRALIA'S MOST POWERFUL STATION!
Aerial system of 200 Coswa, the complete equipment for which was supplied by S.T.C. in the order of the Commonwealth Government.

All the Leading Hospitals in Australia Are Equipped With

S.T.C. RADIO

THESE INCLUDE:

The Royal Prince Alfred Hospital, Sydney.
The Prince of Wales Military Hospital, Sydney.
Coast and Coast Auxiliaries Hospital, Sydney.
The Royal Alexandra Children's Hospital, Sydney.
The St. George District Hospital, Sydney.
Melbourne, Brisbane and other States are equally represented.

SEE THE 1932
S.T.C. RADIO
SETS ON STAND 5.

Then, and after a demonstration in your home, you'll realise why Government Engineers choose S.T.C. in preference to other makes.

Every 'A' Class Australia uses

THE NEW 1932

S.T.C.

Radio Sets

To be released on April 19th, mark another triumph in modern receiver design, outdistancing in performance, design and workmanship any set yet seen this year. There are many improvements, featured in no other set, exclusive S.T.C. patents.

THE 1932

S.T.C. RADIOS

with "Silent Tuning"

and

"Tone That Stands Alone."

SEE THEM AT
THE RADIO EXHIBITION ON

STAND 5

Broadcasting Station in - - S.T.C. Radio Apparatus !!

Equip Your Home With Australia's Finest Radio Receiver —

THE NEW S.T.C. Radio

With Silent Tuning.



STANDARD
CONSOLE.

Silent tuning is a new convenience which gives added pleasure to radio entertainment. By pressing a button you can tune from station to station without an intervening station causing an annoying blare. Moreover, it enables you temporarily to silence the set without altering any of the controls or switching off the power.

Clear, crisp, natural tone at any volume, is an outstanding feature of the new S.T.C. silent tuning models, which in addition incorporate every modern improvement.

See them at the Exhibition, and while there arrange for a demonstration in your home.

Wonderful Receivers, in Superlative
Cabinets,
at Remarkably Reasonable Prices.

S.T.C. 1932 Models are obtainable
in 3 4 & 5 Valves, both A.C. and
Battery Models.

See them at THE EXHIBITION on the Stand of —

THE W.A. DISTRIBUTORS:

M. J. BATEMAN LTD.

12 Milligan St., Perth and 119 High St., Fremantle

STAND No. 5

For Tone ——— S.T.C. ——— Stand Alone.

NEW CENTRAL SHOWROOMS OPENED AT 600 HAY ST. TOWN HALL IS OPPOSITE.

rate, go in it, for it certainly looks interesting. Marin speaks of his station as the smallest on earth, but it is, according to the illustrations, quite a pretentious little station, and it cannot be so small as he heard here. A peculiar feature on the envelope in which the Statuette came to hand is that official Costa Rica Government stamps are used on the correspondence—perhaps he is the President or something of the sort.

On another little printed circular is shown a photo of Miss Lilyka Crespo de Ariza Marin, the 17-year-old daughter of the owner. It gives the power of the station on this test as 7½ watts. It goes on to say "Miss Marin sings to thousands of listeners and talks many a one when his (her) father is busy at the radio." A list of subscribers to the book is also given, which includes many notable American people.

THE CHAPTERS IN THE BOOK.

- 1.—My first listening.
- 2.—The goodness of knowing how to read and write English.
- 3.—The Radio and the Earthquake.
- 4.—The first Home made set.
- 5.—The wonderful Hastings, Michigan.
- 6.—Radio Broadcast International Ten.
- 7.—The Bamboo antenna and the first long wave broadcasting.
- 8.—Radio doctor and pusher.
- 9.—How I made a new antenna.
- 10.—The Short Wave fan.
- 11.—How I built the NRH transmitter.
- 12.—The first report from Passaic Canal.
- 13.—From the Chiboucoue Land.
- 14.—The first newspaper clippings.
- 15.—How Uncle Sam's door was opened.
- 16.—The perseverant work.
- 17.—Trusty reports from U.S.A.
- 18.—The NRH verification Diploma.
- 19.—The Chamber of Commerce and the first Air mail report.
- 20.—The cries of a baby boy.
- 21.—The transients of NRH.
- 22.—The thoughts to increase power.
- 23.—Reports from each country in the American Continent.
- 24.—Reports from England and Spain.
- 25.—Big brother KDKA of Pittsburgh.
- 26.—How factories made SRH fa-

- 27.—From the South Venice Land.
- 28.—A one man broadcaster.
- 29.—The wonderful Publicity.
- 30.—Radio Telegraph and NRH.
- 31.—Hersbie's Poise to NRH.
- 32.—Rebroadcasting Station.
- 33.—The first report from France.
- 34.—The story of a Post Card.
- 35.—Lies! NRH as a "standard."
- 36.—On the summit of Posa Volcano.
- 37.—Air and Variations.
- 38.—From the Emerald Country.
- 39.—Aviator Floris and NRH.
- 40.—The Lindy Dog of Horsbom.
- 41.—Donations and Gifts.
- 42.—First reports from New Zealand.
- 43.—First reports from Australia.
- 44.—From the M.O.P.A. worked.
- 45.—The Lady of the Blushon.
- 46.—Developing intimate friendship.

SHORT WAVE STATION ADDRESSES.

There are many short wave enthusiasts who tune in distant stations on their short wave sets and who are unable to acknowledge reception owing to not knowing the postal addresses of the owners and operators of those stations. In compliance with many requests we are publishing the following list supplied by Mr. H. Jackson jar who has received communications from all these stations, and the addresses given are their official ones.

- English Phones—Radio Section, G.P.O., London, E.C.1.
- German Stations—Reichspostzentralamt, 11-15 Schomburger St., Berlin, Tempelhof.
- Dutch Phones—Parkstraat, 28 S. Gravenhage, Holland.
- PCJ—N. V. Philips Labs, Eindhoven, Holland.
- French Phones—29 Boulevard Haussman, Paris, VIII France.
- IZRO—Via Maria Cristina, 5 Rome, Italy.

- Majestic, Olympic, and Belgenland—International Marine Radio, Aldwych, London, England.
- Leviathan—463 West Street, New York City.
- VK3ME—G.P.O. Box 1271, Melbourne, Australia.
- LSX and LSG—Transradio International, San Martin 329, Buenos Aires, Argentina.
- VEICL—Royal Alexandra Hotel, Winnipeg, Canada.
- Ionu China Phones—Postale Route 218, Saigon, Indo China.
- Siam Stations—Royal Post and Telegraph, Bangkok, Siam.
- Javanese Phones and PMY—Government Post and Telegraph, Bandong, Java.
- PKJAN—Surabaya's Radio Society, Ralstraat 20, Surabaya, Java.
- FHLD—Radiophone, 106 Boulevard Chausse, Saigon, Indo China.
- VK3UZ—Nilsons Broadcasting Service, 45 Bunde street, Melbourne, Australia.
- Moscow Trans Union Station—Radio Station, Palace of Labour, Novosilka 12, Moscow, U.S.S.R.
- VK3DE and VLE—47 York street, Sydney, Australia.
- Kalut—Direction General Des Postes, Des Telegraphes et Des Telephones, Rabat, Maroc.
- JJAA—Kawakawa-Cho, Chiba Ken, Japan.
- LSX—Compania Internacional Radio, 142 Defensa, Buenos Ayres, Argentina.
- HVJ—Pontificia Accademia Delle Scienze, Roma Castina, Pio IV Vatican.
- FYA—Monter Des Postes, 103 Rue de Grenelle, Paris, France.
- XGO—Chinese Radio Administration, Sassoon Hotel, Shanghai, China.
- EAQ—Apartado Postale de Correos 911, Madrid.
- GSW—The British Broadcasting Co-op, Savoy Hills, London W.C.2.
- JLR—Mr. K. B. Maie, 1 Kilrush street, Brighton 23, Victoria, Australia.
- Narom—K.I.R.O.M. Ziekleshoordweg 17, Tandjong Priok, Batavia, D.S.I.
- Bolinas and Pt. Wayne—RCA Communications Inc., Pacific Division, 28 Geary street, San Francisco.
- WDO, etc.—American Telephone and Telegraph Co., Long Lines Dept., 15 Dey street, New York.
- WIXAZ—Westinghouse Radio Stations, Hotel Kuntar, Springfield, U.S.A.
- ZZX—Western Electric Co. (N.Z.) Ltd., G.P.O. Box 605, Wellington, New Zealand.
- ZJW—Post and Telegraph Dept., Wellington, New Zealand.
- WJXAL—National Broadcasting Co., 711 Fifth avenue, New York.
- WXXF—National Broadcasting Co. Inc., Merchandise Mart, Chicago.
- PKKZ—Oec. Makazamsche Radio Verzmoiging, c/o Ned-erlandische Indische Gas Maatschappij, Macassar, Celebes, P.E.I.
- WESK—Westinghouse Radio Station, Hotel William Penn, Pittsburgh, U.S.A.
- 7LO—The British East African Broadcasting Co., P.O. Box 777, Nairobi Kenya Colony.
- WXXAF and WXXAD—General Electric Co., 1 River road, Schenectady, N.Y.
- PKP—Government Entree Internationale Telephonie, Medan, Sumatra, F.E.I.
- REN—Home of the Red Army, Moscow, Russia, U.S.S.R.
- WYXAA—Chicago Federation of Labour, 621 South Wabash avenue, Chicago, U.S.A.
- PKIAA—Radio Society, Batavia Hotel des Indes, Weltevreden.
- WXXAL—Cresley Radio Corp., Cincinnati, Ohio, U.S.A.



RADIO ROME.

The illustration here shows an acknowledgments card received from Radio Rome by Mr. H. Jackson jar. The station's schedule of English transmissions is given. St. Petrus is seen on the right and faintly on the left can be seen the masts of the station, which is situated in Vatican City.

LINKING UP FOUR CONTINENTS.

Short wave telephony is playing a big part in linking up the various telephone systems of the countries of the world, and we have just received a very interesting booklet giving some interesting information about the Lawrenceville Short Wave Station in America, which is one of the world's most powerful short wave telephonic stations, establishing communication with four continents. They include practically all telephones in Western Europe, Australia and Java, the southern half of South America and Africa. Radio and telephony make people in America



The smiling Italian lady below is Signora Buoncompagni, whose voice is known to listeners here and all over the world as the lady announcer of the Rome station.

— for a better Light —

NOW

2/-

40 and 60 WATT
GAS FILLED,
CLEAR OR PEARL.

The Glander LAMP

75 Watt . . . 3/-

100 Watt . . . 4/-

Ask to see "Silexite"—The Lamp with inside frosted finish, by which an improved distribution of light and complete absence of glare is obtained; the latest achievement towards perfect lighting. — Price from 2/-

"EVER-READY" BATTERIES for RADIO, TORCH LIGHT and POWER!

"Ever-Ready" are backed by 30 years of scientific research. You'll buy fewer Batteries if you insist on "EVER-READY."

"MULLARD" VALVES
"HECLA" APPLIANCES
"EMMCO" RADIO PARTS
McCLARY ELECTRIC STOVES, Etc.

Details available on request.

Obtainable from all Electrical Dealers and the Distributors:

Harris, Scarfe & Sandovers, Ltd.

Advertisers will appreciate the mention of this Paper in your Enquiries.

Advertisers will appreciate the mention of this Paper in your Enquiries.

The AIRZONE

1932 MODELS

Outstanding Exhibits on STAND 16.

Never in the history of Radio have you seen such Sets. For beauty in design and performance you will see nothing to excel them in any price field, and in price these majestic "Airzone" Receivers represent the most wonderful value ever offered to the Radio Public.

Receivers by "Airzone" need no recommendation. They have proved with last year's models undisputed leaders for volume, tone and distance.

And now with the release of the New "Airzone" range, you have the choice of many wonderful models, from the little "Cub" right up to their magnificent "Airzone" Distance Six.

In the new models many exclusive improvements are featured, making them the most modern receivers on the market to-day.

The Majestic Beauty of the New "Airzone" Art Cabinets.

These will positively amaze you. Mere words cannot adequately express their beauty. Finished like a Grand Piano, they offer a wide range of styles to choose from. You must see them to appreciate them.

Whatever you do, don't miss seeing the wonderful New "Airzone" Display on Stand 16 at the Exhibition.



Just one of the many majestic 1932 "Airzone" Receivers you will see at the Exhibition.

Radio Dealers everywhere are enthusing over their Wonderful Performance, Beauty and Value — and so will you after seeing them.

See them on STAND 16 at the Radio-Electrical Exhibition to-morrow night, and then arrange with your Radio Dealer for a Demonstration in Your Home.

AIRZONE (1931) LTD., W.A. Branch: 8 Milligan Street, Perth.
FROM ALL RADIO DEALERS.

Advertisers will appreciate the mention of this Paper in your Enquiries.

to speak with people in their homes in this and other far distant countries. Passengers on ships in the Atlantic are also served. In the four transmitting stations at Lawrenceville the transmitting valves are of the water-cooled type with a carrying capacity of 10 kilowatts each. The aerial system consists of twenty-one 180 foot masts, supporting a network aerial to serve Great Britain and



Europe, and others of seven similar masts serve South America and other continents. 10,000 volts are used on the plates of the transmitting valves. In the illustration here are shown the seven 180-foot masts with mesh aerial that was used to communicate with Sydney recently.

"OSRAM" PRODUCES NEW FILAMENT.

The Osram Valve Department of the British General Electric Co. Ltd. advise that their Technical Department of the General Electric Co. Ltd. of England have recently produced a new series of Osram 2-volt battery valves.

This new series incorporates an entirely new filament which is known as the Wembley Filament. This new filament which has been developed and perfected at the research laboratories of the General Electric Co. Ltd. of England at Wembley, outside London, is the outcome of an endeavour to produce a filament with an emissive coating having the following advantages:

1. A high electronic emission per watt of filament energy supplied.
2. An electron emission which is lasting.
3. Non-microphonic properties.
4. Rigidity and robustness.

The low thermal properties which give the first advantage enumerated above means a reduction in the amount of heating energy required to emit a given quantity of electrons from the filament surface.

In the case of this new Wembley filament the electronic emission per watt of energy supplied from the A battery is higher than ever before obtained in respect of a 2-volt valve. This emission efficiency has a two-fold advantage:

1. It effects a saving in the cost of running the valve from an A battery by cutting down the A battery charging expenses to a minimum.
2. It permits a very long filament to be employed, even though the filament voltage is as low as 2 volts, and this has the effect of increasing the surface area of the filament available for electronic emission.

The greater the emissive surface area available, the higher can be made the electrical characteristics of the valve; thus the new Wembley Filament with its long length and large area for emission conduces to a very high electrical efficiency without the necessity for resorting to extremely close clearances between electrodes. The maintenance of a reasonably wide clearance between electrodes has, of course, as will be seen three immediate advantages:

- (a) It enables a very much greater consistency to be maintained between valve and valve in mass production, i.e., the manufacturing tolerances in characteristics can be greatly reduced.
- (b) It makes for the production of an absolutely non-microphonic valve.
- (c) It reduces the chance of electrode contact, and ensures a more robust valve.

By the use of the Wembley filament the electronic emissive area in Osram 2-volt valves is the greatest obtained in any 2-volt valves in the world, with the result that this range of 2-volt battery valves shows unequalled characteristics, ease consistency, non-microphonic performance, and extreme reliability; such outstanding features will be certain to impress all users of 2-volt valves, to whose attention they may be brought.

Supplies of these new Osram Wembley Filament Valves will be available in Australia within the next month or six weeks, and any further particulars can be obtained upon application to the Technical Department, Osram Valve Department, British General Electric Co. Ltd., Magnet House, 104/114 Clarence street, Sydney, or their branches in this State.

BARGAINS FOR THE COUNTRYMAN.

We have the following second-hand battery receivers, taken in payment of new A.C. Sets, for sale at reduced prices:—

- REINARTZ three valve, complete at £18.
- COSSOR three valve, complete at £12/10/-.
- MUSIC MASTER three valve, complete at £12.
- ATWATER-KENT six valve, complete at £40.

Good Country Reception Assured. Sets guaranteed satisfactory or money refunded. Enquiries promptly attended to:—

MORRIS BROS. LTD.,

82 William Street, Perth.

For Records, Gramophone Motors and Parts, Pianos and Musical Instruments of Every Description.

Advertisers will appreciate the mention of this Paper in your Enquiries.

COSSOR'S NEW 280/C.

IMPROVED FEATURES.

The Coscor 280/C, already well known for such famous features as varnished plates for greater heat dissipation and a special treated ribbon filament, has been still further improved.

The new 280/C is capable of carrying a voltage of 250, an increase in voltage of 20 volts. The marvel of this feature is more readily appreciated when one considers that in most valves of this type the maximum voltage is usually only 200.

"Dulytic" Electrolytic Condensers.

If you will take the trouble to examine carefully most of the leading sets at the Radio Exhibition tomorrow night you will notice that the majority of the outstanding sets all feature these new Electrolytic condensers. They are specified, too, by all the leading radio engineers throughout the world in commercial sets and circuit diagrams for the home constructor. It will pay the home set builder to follow the practice of the leading set builders and utilize the "Dulytic" Electrolytic Condensers in preference to the black type condensers, that previously had to be used in banks, until these new revolutionary RMI Electrolytic condensers were put on the market. Amongst the many outstanding improvements that the year has seen in radio, the Dulytic leads the way in regards to condensers for modern radio sets. Messrs. Carbide & Company, Hay Street, are the W.A. distributors. Radio dealers please note.

Exclusive Features of New 1932 Astors.

NEW SPOTLIGHT VISUAL STATION SELECTOR.—The name of the Station you desire is seen brightly illuminated as you turn the tuning knob. Enables even the most non-technical members of the household to select any station with absolute precision.

NEW ASTOR STATION ISOLATOR.—Isolates the station you wish to hear. Completely eliminates interference from every other station. Essential for discerning in the vicinity of regional or broadcasting stations.

NEW METAL-CLAD SCREEN GRID VALVES (BY PHILIPS).—The earlier freedom from internal interference and the silent operation in between stations will impress the most critical with the revolutionary nature of this outstanding technical development in valve design. Now introduced by Astor for the first time in Australia.

NEW DYNAMIC AMPLIFIER.—Entirely eliminates distortion—faithful, natural reproduction even at the maximum, tremendous volume of the full-powered Jensen Dynamic built-in Speaker. Achieved by NEW exclusive design of Speaker to accommodate the NEW Philips Tri-tone power valves.

Radio dealers everywhere are recommending these two sets, and will demonstrate them in your home.

A POSER.

Father: What's another radio set, my boy? What do you think I am going to get the money to pay for it?
Son: Good gracious, father, for such your son, and your financial adviser.

Loudspeakers from 19/6; Pick-ups from 35/-; Gramophones from 42/6.

RADIO SETS.—Pilot Super-Wasp, Stromberg-Carlson, Heald, Astor, and the "Economy 5" Radio Receivers. The All Electric from £10.

Every Electrical and Radio Need at

Good A.C. Valves, 227, 245, 280, 11/6. Wave Traps ———— 22/6
22A, 11/6. Wave Trap Coils with Diagram, 4/6

BAIRDS

Headphones, 17/6 pair.

Hydrometers, 2/6 each.

"Formo" Variable Condensers, 5/6.

IMPEX DRY BATTERIES

Amplian A.C.2 Loudspeakers, 35/-

Duffy Shunt Wave Adapter, assembled and tested, complete with valves, 18/8/6.

"PIFCO" TESTERS—An ideal radio fault finder, includes Voltmeter and Milliammeter ———— 25/6
"Mighty Atom" Crystals, 1/3; Detectors, Glass Enclosed, 4/3; Crystal Set Coils, with diagram, 2/- each. Cabinet Model Gramophones from 118/10/-; Portable, 42/6. All Leading Makes of Records — "Summit" from 2/-

Electric Flashlights, sound type, 2 Cell, 6/-; Focusing, 8/6. Electric Reading Lamps, clamp type, from 18/6. Electric Radiators from 15/-; Electric Kettles from 27/8; Toasters, 22/6. Irons, 12/6.

REAL RADIO VALUES FROM—

THE BAIRDS CO. LTD. Perth, Kalgoorlie, Boulder.

Advertisers will appreciate the mention of this Paper in your Enquiries.



The Wireless Pillow

This Wireless Pillow solves the problem of individual reception without using ear wearying and cumbersome headphones. It is only heard by the person whose head is reposing on the "Wireless Pillow."

IF YOU have ever listened to a night's programme (at the medium of a pair of ear phones, you will know how uncomfortable they will become after an hour or so. Many of the old bums who in the past have huzaned well into the wee sma' hours night after night and week after week, will tell you that they develop corns on the ears, referred to as "Coo Corns" by the short wave fans. Particularly are ear phones objectionable to the fairer sex, for they tend not only to irritate their ears but disarrange and become entangled in the hair.

Earphones, except in the short wave fan, are out of date, but earphones are still used by many, especially

great improvement on phones. In the home, too, it will come in for much use. Dad, if he doesn't play bridge, can sit in his easy chair, with his head resting on the pillow and listen to the programme and the results from Freeman Park without disturbing the younger folk playing bridge in the room. For people who suffer from deafness, too, it will prove a boon, for with its use programmes that could never be heard from the speaker can be heard distinctly from the pillow.

If you should decide to stop at home and look after the youngsters while the wife goes out some winter evening and don't want to be bothered with lighting a fire, just arrange with her to switch off the set when she comes home, in case you go to sleep. You can go to bed with the Wireless Pillow under your head, and warm and cosy, relaxed and resting, can hear the programme without getting a double barreled earache, as would be the case if phones were used.

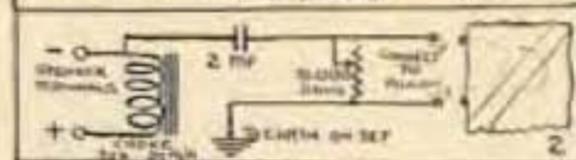
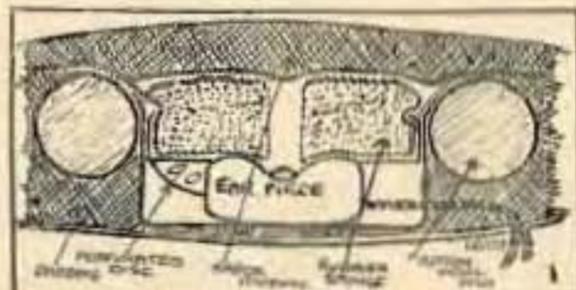
HOW TO MAKE THE WIRELESS PILLOW.

First of all obtain any ordinary telephone receiver. Mount this in an aluminium container as shown in the illustration on this page. In the one made by our Technical Editor, an aluminium nut and bolt can cut down and



invalide, for with them they are enabled to pass the long hours pleasantly. If you have ever been confined to your bed for a long period through sickness, you have probably appreciated your radio receiver more than anything else you possess. There is, however, the disadvantage with a receiver that when it is in operation, everyone else in the home has perforce to listen to it, but here we publish particulars of the Wireless Pillow that can be connected to any set—Crystal battery, or electric—and the reception is only heard by the person whose head is on the pillow.

It is inexpensive to make, comfortable, artistic in appearance, and every word is clearly and distinctly heard by the person who is using it, and not the slightest sound can be heard by other persons in the room. This pillow should prove a boon to invalide, and if it were commercialised there would no doubt be a big demand for it for hospitals, hotels, rest homes, and other places with centralised radio systems. The Kalgoorlie Hospital has recently been equipped with radio, and many of the Government Hospitals in the Eastern States are also equipped. In many of the wards each bed has its pair of headphones, and it is here that the Pillow would prove a



the edge knocked over and perforated with small holes on the edge to which the cloth is sewn, was used. This was 12 inches in depth. Into this is fitted a metal lid with the bottom rim to just rest on the edge of the earpiece of the phone. The metal is then punched with a ring of holes as shown, which makes the surrounding space act as a sound box. Then the top edge is knocked down so that it will hold the sponge pad. This pad can

Advertisers will appreciate the mention of this Paper in your Enquiries.

The answer is

NO!

WHEN someone has advised you to fit your receiver with a set of *Cossor* Valves, have you said or thought, "But aren't all valves pretty much alike; aren't the valves I'm using just as good as *Cossors*?" The answer is "NO"—definitely "NO." For scientists and radio technicians at the *Cossor* factory have evolved "New Process" methods of design and construction which make the newest *Cossors* quite different from any other valves available.



For example: *Cossor's* "rapid-heat-up" filament is of revolutionary design—rotated rapidly around a central perforated pillar—it is practically indestructible. Care-joined sockets facilitate heat dissipation and thus prolong life. Mica bridge assembly of the elements assures absolute rigidity and uniformity. Your radio dealer can explain the importance of these and many other exclusive *Cossor* features—demonstrating conclusively that other valves are NOT just as good.

**W. G. WATSON
& CO. LIMITED**
45 KING STREET, PERTH
Branches All States

COSSOR

"Different
and Better" **VALVES**

C. D. MACLURCAN, Australian Representative,
26 Jamieson Street, Sydney.

be bought at *Bosch's* for 1/-; it is only a small rubber sponge with a hole punched in the centre.

The leads from the surface are brought through a hole in the side of the can. Next get a piece of rubber three inches in width and of sufficient length to go round the can. Sew this up in the form of a tube, closing one end. Then pack this with cotton wool to make a long sausage. The ends are joined and this circular pad fits round the can and is drawn up tight and sewn up to the perforated edge; the padding in this way coming up above the edge of the can. A piece of cloth with the centre cut out to fit the can is inserted between the roll pad and the metal flange on the can and sewn in place with the sausage pad.

This completes the unit. Next we come to the making of the pillow. For this two envelopes will be necessary. These are made with two pieces of strong rubber inches square. These are packed with kapok and joined together on three sides and rounded four inches on each end of the other side. There is thus an 8 inch opening left to insert the reproducer unit. This double pillow, with a space in it like a tea cosy, can then be covered with a heavy rubber envelope trimmed and decorated according to your taste. The leads from the unit are brought out through one corner of the cushion and these can be soldered to a couple of Clix plugs and the plugs sewn on to the cloth, and the leads from the set brought in these plugs.

TO CONNECT TO YOUR SET.

If the *Wireless Pillow* is to be used with a crystal set or a one or two valve battery set, just connect to the speaker terminals as you would a pair of phones. For use with an A.C. set a choke coupling unit will be necessary to feed the *Pillow*. This consists of a 30 Henri 30 M/s choke (manufacturer's type), costing round 10/-, a 2mf. Chaux condenser (four terminals), and if desired a volume control can be fitted. This will consist of a 10,000 ohm variable resistance fitted across the output as shown in Diagram 2. Diagram 1 shows how the unit is assembled. The positive terminal on the input side of the distributor connects to the positive of the speaker terminals and the negative of the unit connects to earth terminal on set. If the speaker is desired in the room it connects to the speaker terminals of the set in the usual way. Leads can be taken from the output of the distributor unit to any room in the house, or even as far as to the house seat door if desired. The *Wireless Pillow* made by the Technical Editor of this paper will be on view at the Radio Electrical Exhibition, and although wired demonstrations will not be permitted, you will no doubt be able to hear some of the tests per medium of this novel device.

6PR Power To Be Increased.

SOON ON 500 WATTS.

We were advised just before going to press that shortly the popular "B" Class Station, 6PR, would increase its power to 500 Watts. This has been approved by the P.M.G.'s Department, and although the definite date as to when the Station will operate on the new rating has not been fixed, it is expected that this will probably be early in May. The Station in its present power goes well out, and with the increased power the range of 6PR in the country districts and the volume in which it is receivable should greatly benefit listeners and advertisers from 6PR.

The Technical Question Box.

Correspondents are advised that these have all been answered by mail direct.—Technical Editor.

Equip Your Home with Radio!

A.C. Sets comprising: Raycophones, Astors, Airzones, Pan and Pilot Super Wasp, giving world-wide reception.

Battery Sets complete from £6 upwards.

ACCESSORIES OF ALL DESCRIPTIONS.

1 BUY USED PARTS FOR CASH

C. H. CARRICK — BRENNANS ARCADE, PERTH.

DON'T PULL THE SET TO PIECES

When Little Things go Wrong

Don't Dismantle and Rebuild Your Set When Some Minor Defect in Reception Takes Place.

Everyone has come across the man whose car is seldom or never on the road. He runs it out of the garage, the engine ticking over beautifully.

Two minutes later his head goes forward and a strained look steals over his face. He grabs you by the arm.

A MOTORING PARALLEL.

"Say, old man, do your best that!"

For politeness sake you murmur something intelligible.

"Piston slips; I'll have to run her back in, I'm afraid." Ten minutes later, surrounded by the dismantled engine, he is whistling merrily, lappet as a skylark.

In the same category is the wireless receiver, whose set is seldom or never in a condition for reception. His programme is usually as follows: a pat, News Bulletin coming through at excellent strength and first rate quality. Half way through he begins to fidget in his chair. At 6.15 he is listening intently, but not to the news.

"Hear that crackle, old chap? It's queer it wasn't there last night!"

THE RUSH TO REPAIR.

You suggest atmospheric; he repeats the word with such withering scorn that an icy trickle runs down your spine. By 6.30 dismantling is in progress, and before 7 the table is spread over with components and lengths of wire.

About this time enthusiasm begins to wane. He looks at the mass of gear around him and mutters:

"Don't think I'll bother to look it up tonight. I'll just run round to Stinson's and see how he's getting on with his Super Seven. There's nothing much on, anyhow."

At this announcement the family atmosphere touches zero level; well they know it will be days before the set is in commission again.

It is not that he means to be wilfully selfish, but simply doesn't know when to leave well alone. If your set develops some trifling irregularity, don't jump to the conclusion that it needs taking to him.

Quite likely the trouble will vanish of its own accord. A bad attack of fiddling may be due to corroded accumulator terminals, the volume varying with the amount of current which can force its way through to the valves.

Perhaps the best plan of all is to have a stand-by set in readiness. It need only be a straight set, and I.F., but it will enable you to carry out the overhaul without interfering for more than a moment with your family's enjoyment of the broadcast programmes.

Remember that there are special service firms in Perth to detect these little faults, and though in the past it was essential to pull the set to bits and rewire it, those days are past, for Messrs. Davies & Co., with the special test apparatus at their disposal, are always at your service.



MR. HAROLD T. NEWTON.

Conductor of the Perth Symphony Orchestra, whose performances last winter proved so popular with the listening public. Now, with the talk of a State Orchestra, the Orchestra's services to the public should recommend the conductor and players for consideration if this scheme is brought to fruition.

Advertisers will appreciate the mention of this Paper in your Enquiries.

Stromberg-Carlson

Superheterodyne Models

**--- give
greater variety
of entertainment**

and give freedom from the overlapping of one broadcast programme upon another. . . .

Stromberg-Carlson Superheterodynes incorporate the most up-to-date improvements known to radio engineering for the betterment of broadcast reception. A home demonstration will show their marked superiority and efficiency. . . .

NO longer is the listener subjected to the discomfort of overlapping broadcast stations; no longer is that Interstate station too weak to be heard at full loud-speaker strength. With the Stromberg-Carlson Superheterodyne, the selection of individual broadcast programmes without interference is assured, and distant stations, previously inaudible, may be heard, in the absence of static, with perfect clarity and at full volume.

**Guaranteed Real
Interstate Reception
on Indoor Aerial.**

MUSGROVE'S LIMITED

Sole Distributors of STROMBERG-CARLSON.



*Elegant
Cabinet.*

Model 532 . . . £35 15 0

5 Valves

Model 732 . . . £49 18 6

7 Valves

Completely Equipped, and
Available on Easy Terms.

Advertisers will appreciate the mention of this Paper in your Enquiries.

At the Radio Exhibition!

DO NOT
FAIL TO SEE

STAND
Number **4**

THE NEW

Stromberg-Carlson

Superheterodynes

THE NEWEST IN RADIO

with

Guaranteed Real Interstate
Reception on Indoor Aerial.

NO INTERFERENCE
NO OVERLAPPING

YOU HAVE NEVER HEARD
THEIR EQUAL.



MUSGROVE'S LIMITED

Sole Distributors of STROMBERG-CARLSON.

Advertisers will appreciate the mention of this Paper in your Enquiries.

With the approach of winter Eastern States reception will be at its best.

Now is the time to get your set tested and brought up to maximum efficiency.

THE SEAL DATE EM TESTED BY H.C. OK OF SATISFACTION.

We are Perth's Leading Test, Overhaul, and Repair Specialists.

We have the most up-to-date and complete Test Apparatus in the West.

If your set is lacking in efficiency, if you are experiencing trouble—bring it to us. We will diagnose and rectify the trouble cheaply and efficiently.

Write for Particulars of Our Yearly Set Service Proposition.

DAVIES & CO., 938 HAY STREET, PERTH
SET SERVICING SPECIALISTS.

THE NEW STROMBERG - CARLSON SUPERHETERODYNE.

First in the field with the new Superheterodyne, the Stromberg-Carlson Organisation of Australia has produced two magnificent models, the 532, five valves, and the 732, seven valves, incorporating features new and important in reception of Interstate and long-distance stations. Those who have had experience in tuning stations will have noticed that quite frequently two stations can be heard very close to each other on the dial; the stronger station always obliterates the weaker on account of its

much greater volume. This means that even with a receiver capable of reproducing Interstate signals, local stations predominate to such an extent that the variety of entertainments is restricted and the charm of Eastern States reception is limited. With the Superheterodyne no such restrictions are imposed, as the principle is one which is eminently suitable to long-distance reception and makes it possible of tuning in Interstate stations, which were previously impossible, without interference and without the use of an outside aerial.

The Superheterodyne is easy to operate, has perfected tone, ample volume and power, and also possesses convertible features peculiar to Stromberg-Carlson models, which enables you, by the addition of a Phonograph Panel Assembly, to convert your receiver to a Phono-Radio Combination at any time you may desire.

The new and advanced features of the Superheterodyne are: Five or Seven valves—including rectifier and the new variable MV valves. Tone Control—for adjustment of tone to listener's taste. Ultra-Selectivity—ensuring reception of more programmes. Super-Sensitivity—easy reception of Interstate stations. Perfect Tone—for which Stromberg-Carlson is renowned. Local-Distance Switch—to reduce excessive volume on local stations. Electrolytic Condensers—eliminating power-pack burn-outs. Magnificent Cabinet of beautifully figured walnut.

The Stromberg-Carlson Superheterodyne is the result of many months of intensive research and nothing has been spared to make it fulfil successfully the requirements of the modern day.

The new models 532 and 732 are specially featured at the Radio Exhibition by Messrs. Murgrove's Limited, sole Distributors for Stromberg-Carlson.

Amongst other exhibits of Murgrove's Limited are the Magnavox Dynamic Speaker, Raytheon Long-Life Radio Tubes, Electric Turntables, Motors and Pick-ups, the Microbox Pick-up complete with arm and transformer, and Test-a-Rite, for testing circuits at 110 to 330 volts A.C. or D.C., which quickly locates trouble with the electric circuits.

WHAT?

A correspondent asks: What would men be today without their wireless sets and loudspeakers? Well say some would be at peace with their neighbours.

Don't Miss Our Next Issue —
"Exhibition Review Number."



UNCLE ERIC OF 6ML.

Charts of the Upper Air Obtained by Use of Radio.

American Army Engineers Devise a Miniature Transmitter Suspended from Captive Balloons.

SIGNAL CORPS engineers of the United States Army have devised a means by which radio can be used to determine air conditions several miles above the surface of the earth, and after more than seven years of experimentation they have perfected, at the Signal School laboratories at Fort Monmouth, New Jersey, equipment by which the direction and velocity of the winds at high altitudes

can be determined. The transmitter is of the regenerative type, Signal Corps authorities refuse to divulge the details of its construction.

The transmitter which goes aloft with the balloons is compact and sturdy and weighs less than a pound. It consists of a small vacuum tube, an inductance coil of enamelled wire, a small transformer, and a small flashlight battery, the whole outfit costing about £1. When the battery is strapped into place at the bottom of the device, continuous-wave oscillations are started which will continue for more than two hours. This wave has been picked up from a distance of 15 miles.

The length of wire which connects the transmitter to the balloon cluster acts as an antenna. Signals are sent at a constant frequency of 200 kilocycles or 130.5 metres.

When the balloon cluster, carrying the transmitter, is liberated it ascends vertically, because of the hydrogen gas,



On the left—An Officer sending up the balloons with the transmitter, which weighs only one pound. At the right the ground apparatus can be seen ready for operation.

may be computed with a high degree of accuracy regardless of visibility.

Visual observations of upper-wind conditions are impossible at night and when visibility is reduced by low-hanging clouds or fog. Since many war operations are carried on behind smoke screens or after dark, it became necessary to devise a method of obtaining the desired upper-air information under these conditions for Army use. The radio method was the answer to the problem.

The radio device, perfected at Fort Monmouth, consists of a miniature continuous-wave transmitter which is sent aloft by means of three hydrogen-filled balloons. Its light is followed with a loop direction finder, a process known as "tracking" or making a "balloon sounding." Long research was necessary before an efficient direction finder was perfected, as it was found that the commercial instruments used in radio compass work were not sufficiently accurate for meteorological use.

The loop direction finder consists of a specially-built radio-receiver of rugged construction connected to a loop antenna composed of a single robe of copper, mounted on a tripod base. To the apex of the loop is connected a calibrated dial, graduated in degrees and fractions. This dial is used to measure the angles through which the loop turns. Ex-



The complete apparatus, showing the direction finder loop, the receiver, and the miniature transmitter attached to the balloons.

Advertisers will appreciate the mention of this Paper in your Enquiries.

but at the same time it is blown about by the winds it encounters. This lateral motion is recorded by observers, and from the data obtained, the speed and direction of these winds may be accurately determined.

It has been found that the cluster will rise at the rate of approximately two hundred yards a minute and this rate of ascent will continue until the internal pressure of the hydrogen gas exceeds the outer pressure of the rarified atmosphere and one or more of the balloons burst. Usually only one bursts and then the others act as a parachute and gently lower the apparatus to earth with little damage.

While the balloons are in flight, observations are taken by two direction finders set up on a base line of known length. Experiments have shown that this length should be three miles for the best results, although shorter distances have been used with a high degree of accuracy. Sometimes three instruments are used; then they are set up in the form of an equilateral triangle of known sides. The third instrument, however, is used principally as a check on the others.

At the present time, radio officers at Fort Mearns Signal School are experimenting to find a method of determining upper-air temperatures by radio. A bi-metallic plate of variable capacity at different temperatures has been inserted in the circuit of the transmitter just described. It is designed so that the wavelength will vary as the air temperature increases or diminishes, and these wavelength changes will be noted on the ground by means of suitable instruments.

Now that the common wind vane has been lifted high into the air by means of radio, it is the ultimate aim of these agents of Uncle Sam to use the radio device, with variations, to unfold many other secrets of the upper air currents.

A Home-made Dry Battery for the Man Outback.

I would not recommend you to make your own dry batteries, but in the outback there are times, especially in the far North-West, when it takes months for a new set to reach the set owner, and so here is published particulars of how to make a battery that will give results with your set. Get a glass jar three inches in diameter and into it fit a cylinder of zinc, to the inner face of which a sheet of blotting paper has been glued. A terminal screw should be soldered to the zinc to enable a good connection to be made. This terminal will be the negative. Next get a carbon rod with terminal attached from an old dry cell. This is then placed in the centre of the jar and around this pour a paste consisting of three parts water, one part muriatic acid, four parts crushed charcoal, two parts flour, and one part of plaster of paris. After the paste has been put in, pour in melted sealing wax or bottle wax to seal the top of the cell. While the wax is hot, pierce this with a piece of wire to make a small hole to allow gas accumulating in the cell to escape. Allow the cell to stand for six hours and it will then be ready to supply current to your A battery. Each cell will deliver 1½ volts. Batteries made on this formula are being used at present with good results by Mr. W. C. Grosser at Normalup Inlet, who has sent along the recipe for the benefit of others who may be in distant and inaccessible places.

Don't Miss Our Next Issue—
"Exhibition Review Number."

FOOTBALL BROADCASTS AGAIN SOON.



MR. CHARLES WICKS, at the "Mikes" of 4WF, broadcasting a football match to listeners. He will be heard again shortly, when the "Tigahis" booters get busy.



MULLARD
SCREENED GRID VALVES
have proved
their Superiority

AND NOW:—

A better Multi-mu . . . an indirected heated pentode . . . a power-grid detector with a gain of 85 . . . a combined oscillator and detector for super-heterodynes and amazing new battery radio valves—provide definite proof of leadership for 1932.

Follow the advice of experts — the best judges — and equip your Set with —

Mullard
THE MASTER VALVE

ADVERTISEMENT OF THE MULLARD RADIO COMPANY (AUSTRALIA) LIMITED.

Head Office: 25 Clarence Street, Sydney.

Distributors for West Australia:

Carlyle & Company, 915 Hay Street, Perth.

Harris, Scarfe & Sandovers, Ltd., Central Hay St., Perth.

A YEAR, AT LEAST, AHEAD OF ANYTHING!

"VOX-ADEON"

10 VALVE SUPERHETERODYNE.

The Ultimate in Modern Receiver Design.—With this remarkable set, positively all the "A" and "B" Class Stations of Australia come in with a 3-ft. indoor aerial. It is the only set of its kind in Australia. It employs two 247 Power Pentodes in Push-pull, giving tone like a great Cathedral bell.

It Is Positively the Only 100 per cent. Efficient Receiver.

Never has anything to equal it ever been heard before. We make these statements confident that we can prove them to you. If you want the finest radio ever yet released, at least a year ahead of anything else, and built for local conditions, call on —

H. W. DENFORD, 57 Milligan Street, Perth.

Radio Engineer and Designer and Builder of "Vox-adeon" Radios. Power Packs, Transformers, Chokes, Inductances, made to any specification.

HELP HINTS AND TIPS.

BURIED AERIALS.

One life-saving method of dodging bad interference from electrical trains, etc. is to bury the aerial. (The buried aerial should be well insulated from the earth by means of a wide-bore protective tube, such as an automobile lamp-glass, placed just below the surface of the ground, and running for 25 feet or so in as straight a line as possible.)

A couple of lengths of one inch electrical conduit can be used if earthware pipes are not obtainable. The aerial should be run down the centre of the pipe through slugs of dry wood soaked in paraffin wax or any other good insulator. Care must be taken to see that and is plugged so that the aerial will not make contact with the earth. The wire from an old battery method and power or will be quite suitable. The pipe should be put at least in the ground, say, three feet deep at one end covering one of the ground a few inches at the other end. The aerial, where it comes out of the tube, should be connected to the set by metal-shielded (lead or other metal) electric light leads.

GET YOUR GRID BIAS RIGHT.

Are you using a small 2-volt power valve? If so, are you getting no grid bias at all?

Many amateurs use a high tension of 120 and a grid bias of negative 9. This value of grid bias may be excessive. For one thing, the actual voltage of the anode is not 120. It is probably about 110, because of the loss at the load speaker. Thus, again, the small power valves or tubes have sometimes a greater magnification factor than low tension. As a consequence, the tubes will not stand so large a grid bias.

Too much grid bias runs down the audio current and therefore introduces distortion. Many a set needs to be improved by attention to this point.

AERIAL LEAKAGE.

If your aerial wire is allowed to come near to an iron gutter or similar metal surface, high-frequency leakage will take place at this point, even though the aerial wire is properly insulated by rubber or silk covering.

A good method is to fix up a wooden bracket with an insulator in it to carry the aerial at least three feet clear of metal guttering or roofing.

Aerial insulation should be frequently overhauled by a look in this part of the insulation may seriously affect reception. A bad aerial connection is often responsible for crackling and other noises often not down to static.

HUM ELIMINATOR.

The fitting of a small lead condenser of about 3000 micro capacity between the earth terminal and earth lead is often of assistance in reducing humming interference.

WHEN Enveloped in DARKNESS

And your Lights have failed, go to the telephone and ring

B 1786

L. H. DEAGUE

& CO. LTD.

ELECTRICAL ENGINEERS AND CONTRACTORS.

36 PIER STREET, PERTH.

Stocks of all the latest Electrical Goods, including Electric Fans, Stoves, Vacuum Cleaners, Motors, Electric Lamps, Shades and Fittings.

An Automobile Radio To Run Down Man-Made Static.

California Employs an Interference Investigator.



Testing for Man-Made Static.

Man-made static which is almost as big a bugbear to radio listeners as static of the ether, is being seriously dealt with in many countries of the world today. The East Bay District, Oakland, California, according to Radio News of America, employs a special interference investigator, whose car is fitted with a sensitive radio receiver. The investigator states: "Conditions in this work made it necessary to make a slight change in the wiring of the set in order to eliminate the automatic volume control feature, or to cut it in at will. This was done with a single-pole double-throw jack switch and a 100,000 ohm resistor.

The resistor between the grid of the volume control tube and the bias resistors of the radio frequency tubes was grounded at the joint where the three are joined together. This left two resistors in series to ground in these stages. The end thus considered was connected to

the blade of the switch. One switch contact was connected to the point where this resistor was disconnected and the other contact was grounded through a 100,000 ohm resistor.

When the switch was thrown so that this resistor was cut in, there was no change in quality or volume of reception, the only difference being that there was noticeable fading, which is a feature desired in radio interference investigation.

In addition to the regular dynamic speaker, I use a small horn type speaker and an output meter. The additional speaker is used because it acoustically amplifies the higher frequencies which are prevalent in radio interference. The output meter with a control potentiometer is used to indicate the proximity of the set to the source of interference. These speakers and the meter are all controlled by a switch and jack arrangement so that the speakers or meter or both may be cut in or out at will.

In addition an extra set of six jacks is wired in on this panel so that a pair of headphones may be plugged in.

This equipment, plus an eight-pound sledge hammer, is all that is necessary to locate leaks in high-voltage



In England as in Germany and many other countries steps are being taken to eliminate interference to listeners by man-made static. The illustration shows workmen at work on frame, a common cause of trouble.

TRANSFORMERS

Built to Any Specification.

CORES CUT TO ANY SIZE.

Electrical Repairs

of Every Description Executed.

Obtain Quotes from—

The Australian Electric Co.,
126 BENNETT STREET, PERTH.

Advertisers will appreciate the mention of this Paper in your Enquiries.

B4435

Ring Either Number for
**Better
Printing**

R.S. Sampson Brokensha
COMPANY
971-3 HAY ST., PERTH

B7244

Advertisers will appreciate the mention of this Paper in your Enquiries.

receiving set as to often overlap and interfere with each other and become quite impossible to separate. It was to solve this problem that Marconi recently set out on a new line of research, and now he promises us that it will not be long before the problem is completely solved.

TALKING WHILE WALKING.

For a way out of the congestion in the ether, Marconi has turned to short-wave telephony, and not in vain. Only the other day he was able, by means of his new invention, to hold an entirely successful wireless telephone conversation over a distance of 15 miles on the amazingly short wave length of half a meter. And now he assures us that the new discovery will eventually bring round-the-world wireless telephone conversations within the reach of all. Indeed, the apparatus is so small as to be contained in an attache case, and requires power to the extent of only half a kilowatt.

WORLD-WIDE BROADCASTING PLANS.

In June of last year the Marconi Company was experimenting with a "one-man superportable" transmitter-receiver at Croydon Aerodrome. An engineer, carrying the transmitter with him as he walked, engaged in conversation by wireless telephone with the aerodrome officer, and it was found that the apparatus had a range of about a mile. Marconi's latest development is apparently an improvement over this, and, owing to the more satisfactory conditions which attend broadcast on the shorter waves, it seems quite possible that cheap, round-the-world, portable, one-man transmitter-receivers will create a revolution in the wireless industry.

The advantages of short wave transmission are apparently fully grasped by our American cousins. A Short Wave Broadcasting Corporation has just been formed in Boston, and is controlled by Aviation Incorporated and the Shortwave and Television Corporation of Boston.

The purpose of the new corporation is to utilize the short waves for broadcasting the usual programmes of entertainment to four continents. The broadcasts will take place in the ordinary way, but on short wave lengths, and will be picked up, intensified, and re-broadcast by stations in Germany, Argentina, Chile, China, and Australia.

POCKET LONG-DISTANCE RADIOS.

Try to picture the civilized world with all these new inventions and projects in operation—news, SOS calls, educational talks, musical and other entertainment, talkie-film shows, etc., all "on tap" either in the ether, or through the domestic electricity supply, available to all with simple and cheap receiving apparatus; also equally cheap and simple portable transmitting-receiving outfits available for all and capable of keeping their owners in call-and-reply telephonic communication with the rest of the world, wherever they may be, whether in the trackless equatorial deserts or in the frigid wilds of the Arctic regions.

Possibly we may see the day when everyone will carry such apparatus in his pocket and be able to call up converse with a friend whether the distance be only a few yards or thousands of miles—who knows?

S.T.C. New Showrooms.

Messrs. M. J. Bateman have just opened new showrooms for the 1932 S.T.C. radio receivers, at 600 Hay Street, Perth, facing the Perth Town Hall. Mr. C. James, well known in radio circles is in charge and will be pleased to meet old clients and demonstrate to them these new ultra-modern S.T.C. radio receivers. He's a cheery chap and will be only too pleased to demonstrate to any visitors to the Exhibition, either at the new showrooms or in your home.



Air Traffic on Radio Rails.

Many inventions have been tried for ensuring the safety of air traffic, but have failed to give reliable results in practice. In order to remain in continual communication with a transmitting station by means of radio signals, the pilot has to wear a head-telephone, which is a great handicap.

A reliable system has now been elaborated, by which the pilot need only watch the readings of a measuring instrument in order to steer a true course.

In this system the transmitting station on land has a directional aerial whose radiation is directed according to the course to be steered by the aeroplane. The slightest deviation from this course is at once shown by the pointers of the measuring instrument on board, and the pilot can also tell whether the deviation is to the left or to the right.

This system is to be adopted on the air route from Kansas City to Los Angeles, which forms part of the extensive airway communication over the American Continent.

How Radio Advertising Pays In America.

In Europe the listeners do not very much appreciate radio-advertising. In America, however, much attention is paid to advertising before the microphone, and very likely not so much in the interests of the listener as in the interests of the broadcasting companies. The figures of the proceedings of this part of the programme are proof of this. The two largest American broadcasting companies, the "National Broadcasting Company" and the "Columbia Broadcasting Company," received during the first three months of the year 1931, \$3,363,635 dollars from advertising.

This is 36 per cent. more than in 1930, 42 per cent. more than in 1929 and 83 per cent. more than in 1928. In 1931 the total amount to be received by these two broadcasting companies on advertising is expected to be 35 million dollars, whilst this amount is estimated to be 25 million dollars for all the 600 American broadcasting stations.

Questionnaires to Radio Listeners.

The Broadcasting station at Vienna has compiled a questionnaire for the listeners with a view of collecting data with regard to wishes re the programmes.

The questionnaire not only requests approval or disapproval of a programme, but also inquires after the age, sex, profession, number of members of the family who listen to the programmes, type of receiving set, habitual time of listening, musical instruments played by the members of the family, etc.

The questionnaire will be printed in the radio periodicals, and it is hoped to obtain in this way a fairly complete general idea of the wishes of the radio listeners.

Advertisers will appreciate the mention of this Paper in your Enquiries.

RADIO JOKES AND HUMOUR.

FOUND OUT BY TELEVISION.

(What May Happen in the Future)

I hate to go on,
But you're late again, John!
Don't tell me it's due to your missing the train;
Nor was it your watch
Or a "soda and Scotch."
Or were you detained at the office again?
No! Please see you try
To assemble a lie,
I've something of import to show you, my pet;
Just look over there,
You may very well stare—
It's no less than a neat little "seeing-in" set!
Tonight I switched on,
And I saw you there, John,
Disporting yourself at a dinner at "The Hat."
What makes it more shady,
I don't know the lady—
Now tell me, pray, what is the meaning of that!

It has been decided to amalgamate the English Folk-Dance Society and the Folk Song Society, the new title being the English Folk Dance and Song Society.

Don't Miss Our Next Issue—
"Exhibition Review Number."

Appearance Isn't Everything.

But It Goes a Long Way!

A GOOD SET
is worth a
GOOD CABINET.
Call On Us for

ARTISTIC RADIO CABINETS

We are manufacturing cabinets for many of the leading makes of sets on the market today. It will pay W.A. Distributors and Agents for Instructional Receivers to fit their shops to our standards. We specialise in the Linn Cabinet, Quorin, Commodore, and Master Cabinets, at prices defying Eastern States competition, and our products are equal to the world's best.

A TRIAL ORDER WILL WIN YOU.

Special Cabinets for Air Particular Set or Combination.

Prices and Specifications on application to:—

THE RADIO CABINET SPECIALISTS,
TURVEY BROTHERS,
518 BEAUFORT STREET, PERTH.



BEALE PANCHROMATIC RADIO

In Appearance — In Performance
INCOMPARABLE.
Dependable As Its Name.



The Blue Ribbon of Radio.
Magnificent — Unique — An Excellent Receiver for Eastern States entertainment.

D.C. ELECTRIC

COUNTRY VISITORS NOTE.—
We are for the first time placing on the market a Direct Current All-Electric Receiver, built to operate in all Country Towns where electricity is available.
No More Batteries.
Unaffected by Voltage Fluctuations.



THE MIDGET

(Three Valves in all).
Range — Tone — Selectivity.
Low in Price — High in Estimation.

AIRZONE

WE CARRY COMPLETE STOCKS OF AIRZONE RADIO SETS. Models complete in Exquisite Cabinets. Chassis complete for installation in Your Own Cabinet.



We extend to visitors to this, the 1932 Radio-Electrical Exhibition, an invitation to inspect our attractive display of Radio Sets, Electric Sewing Machines, Vacuum Cleaners, Floor Polishers, etc.

**JONES — FREE — WESTINGHOUSE
ELECTRIC SEWING MACHINES.
BRITAIN'S LEADING MANUFACTURERS.**

**SILVAC AND COLUMBUS CLEANERS,
POLISHERS, COMPLETE HOME CLEANING
UNITS — LESS LABOUR — MORE LEISURE.**

After you have viewed the Exhibition, please call at our Showrooms. We will be pleased to arrange further demonstrations.

THOMSONS LIMITED,
209 MURRAY STREET, PERTH,

And at
171 QUEEN & ADELAIDE STS., FREMANTLE.



BEALE 20.
Ideal for
Local Reception.

The New "PH" 224a SCREEN GRID TUBE.

By F. H. Boland, Philips Lamps (A'asia) Ltd.

MANY new electrical and constructional features have been incorporated in the design of the Philips PH 224a Screen Grid Tube, and exhaustive tests show that a high standard of merit has been reached. This, it is believed, will be mainly responsible for making this tube the universal replacement Radio Frequency Screen Grid Valve of the screen.

This new screen grid tube is an indirectly heated radio frequency and intermediate frequency amplifier. It may

nevertheless be designed so that the total current draw does not allow the voltage across filament of the PH224a valve to alter from 2.5 volts.

It should also be borne in mind that an excessive voltage may render any valve imperative; at least may lessen its useful life considerably, and here a word of advice to owners. Always switch off the current from a mains operated set before removing any valve for inspection, the reason for this being two-fold. First, when the current is switched off from the set there is no chance of an accidental shock being received; and secondly and particularly in the case of the 224 screen grid valve, when one is removed while the current is switched on it suddenly relieves the supply transformer of 1.75 amp load which, if correct regulation is not incorporated in the set, will raise the filament voltage in the other valves above the rated voltage, with the above mentioned resulting damage.

The construction of the screen grid is such that the control grid and anode or plate have a minimum capacity

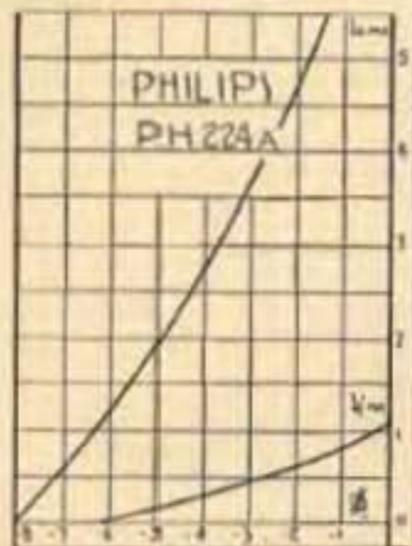


Figure 1.

also be used as a power detector in special circuits. The filament voltage is 2.5 volts with a current consumption of 1.75 amps. Maximum amplification is obtained with an anode or plate voltage of 250 volts and a screen grid voltage of 90 the negative grid bias being 3 volts. The normal mode current is approximately 2 to 6 milliamperes and the screen grid current approximately 1.5 milliamperes. The mutual conductance of above is 1.0 milliamperes per volt, and the internal resistance about 400,000 ohms.

Externally the valve resembles the old type of 224 screen grid tubes, being equipped with standard top pinion base (or "cup B") with grid connection as the upper metal cap on the top of the valve.

An improved meshed plate is rigidly supported at the most effective distance from the other electrodes.

The rigid construction of the electrode assembly prevents any displacement of the relative position of the individual electrodes during transport or handling, thus giving the valve that much valued constant efficiency.

As stated before the filament voltage is 2.5 volts and has a high current consumption of 1.75 amps. This makes it necessary to wire all filament leads with a high current capacity wire. Each pair of filament leads should be twisted and each set of pairs to each valve should be as near the same length as possible. The filament supply trans-

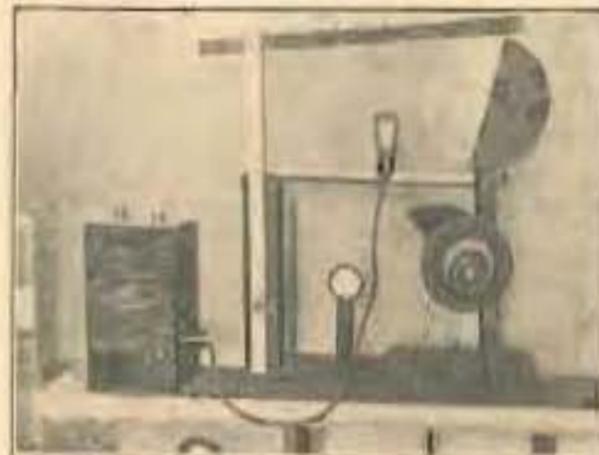


Figure 2.

form giving stable operation. To avoid this reduction in inter-electrode capacity it is advisable to keep all coil windings as short as possible.

It is necessary to see that the coils and condensers, also the valves of each stage, are completely and efficiently shielded from each other, otherwise the high gain possible from the PH224a may not be reached.

The anode and screen positive potential is obtained from the "B" supply device, so arranged as to give definitely the correct voltages mentioned before.

Figure 1 shows the anode grid characteristic curve of an average of 30 PH224a valves taken from stock and tested under rated conditions.

Special tests for constructional strength were carried out on ten of these tubes with results much better than

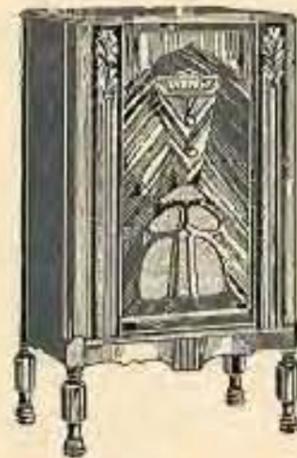
Advertisers will appreciate the mention of this Page in your Enquiries.

WELDON

1932 Series of Radio Receivers.

FOUR MODELS:—

- Ultra-Modern Features;*
- Tonal Beauty Unsurpassed;*
- Results of which to be proud.*



Prices from
£18/18/- to
£37/10/-

YOU will see many radio receivers at the Wireless Exhibition, but your personal catalogue will not be complete until you have inspected and listened to the 1932 Series of "Weldon" Receivers.

Wireless sets cannot be judged on appearance alone, and while the cabinet design of "Weldon" Radio is exceptionally fine, the rich beauty of tone, from the highest treble to the deepest bass, is a merit that draws considerable attention and constitutes perhaps the most highly prized feature of "Weldon" Radio.

As we have not taken a stand at the Exhibition itself, special displays will be made on our own premises. This will give you the opportunity of thorough inspection, and we are positive that your conclusions will be that "Weldon" Radio Sets are soundly constructed, thoroughbred through and through, and that the value at the low prices is unusual.

You are just as free to inspect the models of "Weldon" Sets, from Three to Six Valves in all, at
152 WILLIAM STREET,
as you would at the public display.

CRAIG & CO. LTD.

152 WILLIAM STREET, PERTH.

Advertisers will appreciate the mention of this Paper in your Enquiries.



BROADCAST

Programmes

April 19 to April 30



These Programmes are subject to alteration to meet any contingency that might arise.

Call Sign: Station 6WF. Wave Length: 435 Metres.

Call Sign: Station 6PR. Wave Length: 341 Metres.

Call Sign: Station 6ML. Wave Length: 264 Metres.

6WF — TUESDAY APRIL 19, 1932.

- 6WF—The Radio Maffnes.
- 1.0—Vocal and instrumental group.
- 1.30—Talk by a representative of the County Women's Association.
- 2.00—Melodious grave and gay.
- 4.50—Close.
- 6WF—Early Evening Session.
- 6.10—Goodnight stories by Lucia Bay.
- 6.35—Hal McKail talks to members of the Younger Set.
- 6.55—Dinner music.
- 7.15—Dr. J. S. Sully, B.A., LL.B., continues his series on Men Who Have Made History.
- 7.50—Weather and market reports.
- 7.45—The Daily News news service.
- 7.55—What's on the air tonight.
- 6WF—Evening Session.
- 8.5—From People Court: Official opening of the Radio and Electrical Traders' Exhibition.
- 8.20—From the National Broadcasting Studio: Overture, The Fire Bird (Stravinsky).
- 8.24—Irene Stanshiff, soprano: Shadow Song from *Diana* (Meyerbeer); Lullaby (Scott).
- 8.27—Fair notes: Knowantshin (Housborgsky).
- 8.28—David Lyle, tenor: A Spirit Flower (Tipton); I Love For You (Thompson).
- 8.45—Talk by Rev. C. A. Jenkins: Ten Golden Mysteries.
- 9.0—From the Radio and Electrical Exhibition: Irene Stanshiff, soprano: Rosalinda (Arditi); The Song in my Heart (Hartel).
- 9.7—Fayella Blitt, A.M.S.A., pianist: Prelude in C Sharp Minor (Bach).
- 9.15—David Lyle, tenor: Rose of Picardy (Haydn Wood); This Day, from *Nutcracker* (Lecocq).
- 9.20—From the Studio: The Silver Choir: The Blue Danube (Strauss).
- 9.24—By special request: Mozart's Clarinet Quintet in A Major, by the Loney String Quartet in association with Charles Craypey.
- 10.0—Sidelights on the Radio Exhibition.
- 10.10—Musical memories of the past.
- 10.55—Resume of tomorrow's programme.
- 11.0—National Anthem—Close.

6ML — TUESDAY APRIL 19, 1932.

- 6ML—Women's Radio Service.
- 11.0 to 11.30—Shopping guide: Orchestral and vocal selections.
- 11.30 to 11.40—Fox Hoys Radio Club Women's Session.
- 11.40 to 12.0—Orchestral and vocal selections.
- 12.0 to 12.50—News service presented by The West Australian Newspaper Co.
- 6ML—Luncheon Session.
- 12.30 p.m. to 2 p.m.—Vocal and orchestral music.
- 6ML—Afternoon Session.
- 2.0 to 4.0—Orchestral and vocal selections.
- 6ML—Early Evening Session.
- 4.45 to 5.15—Children's session by Uola Eric and Aunty Laura.
- 5.15 to 5.45—Dinner music.
- 5.45 to 6.55—Fox Hoys Radio Club Session.
- 7.5—Dinner music.
- 7.15 to 7.30—News service presented by The West Australian Newspaper Co.
- 7.30—Dinner Music.
- 6ML—Evening Session.
- CLASSICAL PROGRAMME.
- 8.0—Official opening of the Radio and Electrical Exhibition, relayed from Temple Court Garage.
- 8.20—From the Studio: The Fair at Sorotchinsk, Gopak; London Symphony Orch.
- 8.24—O Des Fatales (Don Quixote), Marjory Anderson, contralto in Italian.
- 8.28—Diana, Adagio in F Major, Op. 53, No. 22: Beano Meierowitch, piano.
- 8.31—Beloved is My Home: Richard Crooks, tenor.
- 8.35—Eto, Day a Sorilla: Philadelphia Symphony Orchestra.
- 8.40—Mignon, Story: Mlle. Feraldy, soprano in French.
- 8.47—Salut d'Amour: New Symph Orch.
- 8.50—The Barber of Seville Overture: Philharmonic Symph Orch of New York.
- 9.0—Yes, is One Madder Mongol (Madam Butterfly); Browning Minstrelsy, tenor.
- 9.4—Marche Militaire: Arthur Meale, organ.
- 9.7—The Waltz: Theodore Chaliapin, bass in Russian.
- 9.11—Drama: Chicago Symph Orch.
- 9.15—Margaret at the Spinning Wheel: Dora Lee Giannini, soprano in German.
- 9.20—Relay from Radio and Electrical Exhibition of 6ML's stage presentation: Ballet: Mr. Chas. A. Huddell, piano; Marinka & Concert: Mr. Keith Dun-

- more, violin. Karl Nitrol: Mr. S. T. Harley, cello. Song Without Words: Op. 10, No. 4: Rudolf K. Cunningham, S. T. Harley.
- 9.40—From the Studio: Mlada, Cortage des Nobles; London Symph Orch.
- 9.44—Plaisir d'Amour: Marjory Anderson, contralto in French.
- 9.48—Hunting Song (Songs Without Words): Bruno Mielowitch, piano.
- 9.52—Ah, Moon of My Delight (In a Persian Garden), Richard Crooks, tenor.
- 9.56—Captains: New Symph Orch.
- 10.0—Nancy, Farewell Our Little Table: Mlle. Feraldy, soprano.
- 10.5—Andantino: Arthur Meale, organ.
- 10.9—The Whole World Over (Madam Butterfly); Browning Minstrelsy, tenor.
- 10.14—Russian and Ludmilla Overture: Chicago Symph Orch.
- 10.18—Death and the Maiden: Theodor Chaliapin, bass in Russian.
- 10.22—Rigoletto Selection: Marjory Weber and Orch.
- 10.30—God Save the King.
- 6PR — TUESDAY
APRIL 19, 1932.
- 10.30 to 11.30—Items of interest for women.
- 1.0 to 2.0—Music.
- 1.30 to 5.30—Vogue Radio Hour music.
- 6.30—Children's Session, conducted by Uola Pator.
- 7.0—News Service supplied by The Daily News. Close.
- 6PR—Evening Session.
- 8.0—Opening speeches of the Radio Exhibition.
- 8.20—Dollar Princess: Madley, Shikret and Orch. Lo Hour the Gentle Lark, Marjory Talley; Marche Festive, Arthur Meale; Shepherds Madrigal, Kremler; Bohemian Dance, Backhaus; Troop les Hugonots, Royal Air Force Band; Black Diamond Overture, B.B.C. Wireless Band; Waltz, Lerttaki; Kashmiri Song, Hackett.
- 9.6—Items by the Bohemian Choir: How Lovely are Thy Dwellings Pair; Viking Song; It Comes from the Misty Ages; La Golondrina, Tyndalovs; Siesta, de Groat; Show Boat, Mayfair Orch; Valse Inspiration, Hackett; A Sprig of Rosemary, Colburn; Cornelia's Solts, Alfred Goret; Take a Pair of Sparkling Eyes, Sgt. Hawkes; What a Day, Weems and Orch; Jack the Giant Killer, Penrose; All Hands March, U.S. Navy Band; Yvonne by Night; Weber and Orch.
- 10.30—Close down.

Advertisers will appreciate the mention of this Paper in your Enquiries.



AN IDEAL PRESENT FOR THE RADIO ENTHUSIAST, AND FOR EVERY MOTORIST, TOO!

The "SUPERIOR" Electric Soldering Iron.

Costs a farthing an hour to operate. It's Australian made and will last a lifetime. An essential in every home. From—

Price 31/3

HARRIS, SCARFE & SANDOVERS LTD., HAY STREET, PERTH "THE HOUSE OF THE PRESENT."

6WF—Dance down

6WF FRIDAY APRIL 22, 1932

- 6WF—The Radio Matinee
6.15—Dance music and juggling ballads.
6.20—Today's Feature Story.
6.25—Feature sketches.
6.30—Class.
6.40—Early Evening Session.
6.5—Dance music by Uncle Ben and Company.
6.55—Dance music.
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6ML FRIDAY APRIL 22, 1932

- 6ML—Woman's Radio Session.
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6ML—Lunchtime Session

- 12.30 p.m. to 1.30 p.m.—Light orchestral and vocal music, market reports.
6.45—Children's Session by Auntie Laura and Uncle Ben.
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6PR FRIDAY APRIL 22, 1932

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6WF SATURDAY APRIL 23, 1932

- 6WF—Early Evening Session.
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Advertisers will appreciate the mention of this Paper in your Enquiries.

PRISK, THE BOOTMAKER, 237 WILLIAM STREET, PERTH. PRICE LIST FOR REPAIRS.

Table with columns for Men's and Ladies' shoes, listing items like 'Sole and Heel, from' and 'Sole only' with prices.

All Even Work 1/- extra. Work returned by Customer's Order. Returns Freight add 1/- or 2/- extra. Terms: Cash with order.

SCALE REPAIRS

Scales, Weighbridges, etc., overhauled and rebuilt. WORTHINGTON SCALE CO., SCALE ENGINEERS, 34 Milligan Street B.3422.

Mt. Lawley Directory

Get Your Repairs and Service in Your District. Every service to every make of Car, Oil, Petrol, Retreads, Overhaul, Repairs, Greasing, etc.

The SUBWAY SERVICE STATION, Guildford Rd., nr. Mt. Lawley Station. Service with a Smile.—Give us a Trial

South Perth Directory

J. A. JEFFERY, M.P.S., CHEMIST, FREMANTLE ROAD (near Douglas Avenue), SOUTH PERTH. Tel. MUMZ

The SOUTH PERTH DRAPER, Meads Street — Miss G. M. North.

Dressmaking, Moderate Rates Sewing of Every Description. Hemstitching Country Orders Promptly Attended to.

C. H. PITMAN For all kinds of Account Books and Loose Leaf Ledger Systems. Sheets specially made for all Post and Thong Binders. Periodicals and Music Bound in Best Styles at Shortest Notice. Reasonable Prices. 975 HAY STREET, PERTH.

6WF—Evening Session

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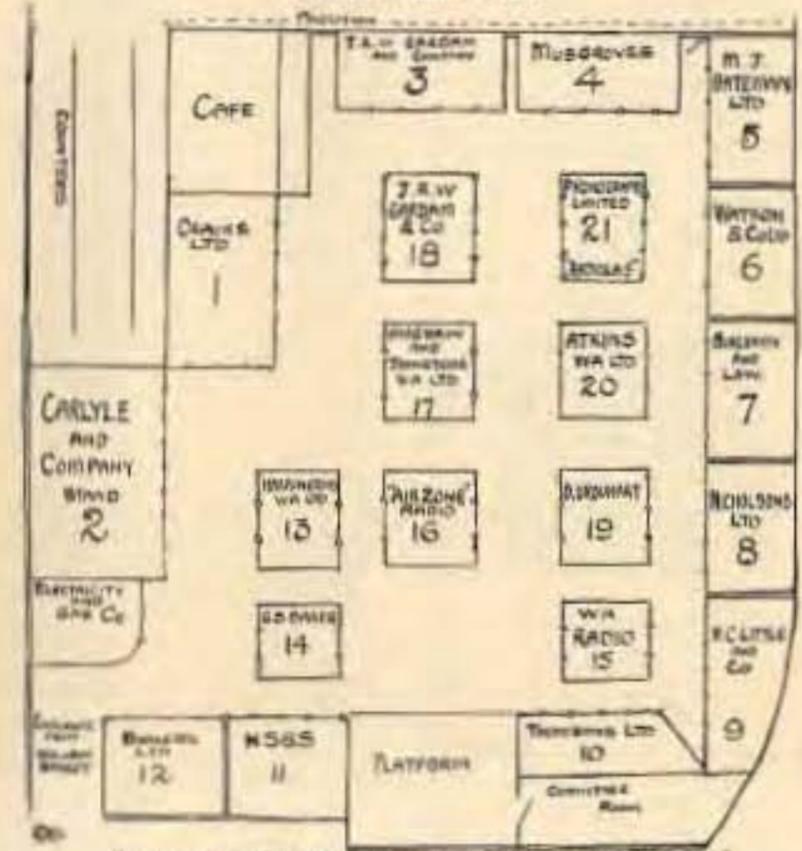
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How to Find the Various Traders' Stalls at the Exhibition To-Morrow Night. CONSULT THIS PLAN.



This ground plan shows just where to look for the various traders' exhibits at the Radio Electrical Exhibition to be held at Temple Court on April 19th to 23rd. Whatever you do, don't miss seeing what promises to be the finest Radio Electrical Exhibition ever held in Western Australia.

Advertisers will appreciate the mention of this Paper in your Enquiries.

6PR SATURDAY APRIL 23, 1932

10.30 to 11.30—Music.
1.1 to 2.0—Music.
4.30 to 5.30—Viggo Sjölin Hour.
6.30—Children's Session, conducted by Carlo Pöyry.
7.0—Daily News news service. (See page 66.)

6PR—Evening Session

8.0—Kantata Deluge, Victor Spangh (Chor., Soprano, Basses and Violoncello).
8.15—M. H. Sjölin, Old and New, Flute and Organ.
8.30—Viggo Sjölin, Flute and Organ.
8.45—The Song of Spring, from Scherzo, by Sjölin.
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6WF SUNDAY APRIL 24, 1932

8.0—Morning Session.
10.30—Sporting and news service from The Sunday Times.
11.0—A Baptist Service broadcast from the Central Baptist Church, Fremantle, Rev. Harry Sawyer, organist, Miss Edith Fox, L.A.S.

6WF—Afternoon Session

1.0—Special presentation by world leader orchestra and artists.
1.15—Ball on Snow with almost orchestral.
1.30—Class.
2.0—Evening Session.
8.0—From Church of Christ, Lake Street, Children's Session conducted by "Daddy Charlie," assisted by the "Tiny Tots" Choir, Chalmers, Mr. S. D. Carter.
8.15—Ball on Snow.
8.30—Professors A. J. Ross, H. S. Clark, Clonard and Max.
8.45—Orchestral selections.
9.0—A Presbyterian Service broadcast from St. Andrew's Church.
A St. George's Day Programme featuring English music and songs from Shakespear.

9.15—One Love, But One Heart, David Back, vocal solo, piano.
9.30—"Mysticophiles" Service, Friends of Anson, bass.
9.45—Aure of Vica, Jones, Ten Symphonic Orchestra.
10.0—The Holy City, Radio Adelaide, vocal solo with organ.
10.15—Communion Service (The Prophet, Rev. David Ross-Carter, organist).

6WF—Evening Session

8.0—Special presentation by world leader orchestra and artists.
8.15—Ball on Snow with almost orchestral.
8.30—Class.
8.45—Evening Session.
8.0—From Church of Christ, Lake Street, Children's Session conducted by "Daddy Charlie," assisted by the "Tiny Tots" Choir, Chalmers, Mr. S. D. Carter.
8.15—Ball on Snow.
8.30—Professors A. J. Ross, H. S. Clark, Clonard and Max.
8.45—Orchestral selections.
9.0—A Presbyterian Service broadcast from St. Andrew's Church.
A St. George's Day Programme featuring English music and songs from Shakespear.
8.45—Overture: A Midsummer Night's Dream (Mendelssohn).
8.55—Glorious Britain, organ soloists: A Spring Song (Percy); I Knew a Boat (Howe) words by Shakespeare.
9.05—The Song of Spring, from Scherzo (Ludwig) of Beethoven in A Major (Howe).
9.15—A.R.C. Concert Orchestra, Henry VIII Dance (Grove).
9.25—Glorious Britain, organ soloists: The Song of Spring, from Scherzo (Ludwig) of Beethoven in A Major (Howe).
9.35—The Song of Spring, from Scherzo (Ludwig) of Beethoven in A Major (Howe).
9.45—The Song of Spring, from Scherzo (Ludwig) of Beethoven in A Major (Howe).
10.0—The Song of Spring, from Scherzo (Ludwig) of Beethoven in A Major (Howe).
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11.30—The Song of Spring, from Scherzo (Ludwig) of Beethoven in A Major (Howe).

6PR SUNDAY APRIL 24, 1932

11.0 to 11.30—Music.
1.1 to 2.0—Music.
4.30 to 5.30—Viggo Sjölin Hour.
6.30—Children's Session, conducted by Carlo Pöyry.
7.0—Daily News news service. (See page 66.)

6PR—Evening Session

8.0—Kantata Deluge, Victor Spangh (Chor., Soprano, Basses and Violoncello).
8.15—M. H. Sjölin, Old and New, Flute and Organ.
8.30—Viggo Sjölin, Flute and Organ.
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MR. B. THE OPTICIAN. WALTER BUCKERIDGE, F.I.O., F.S.M.C., D.B.J.A. By Exam. London. 263 MURRAY ST. PERTH. OFF PRINCE OF WALES THEATRE.

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6WF MONDAY APRIL 25, 1932

6WF—Morning and Midday Session

8.0—From the Highlands, Perth. Special News Service and Association of the Great Parade.
8.15—From the Highlands, Perth. Special News Service and Association of the Great Parade.
8.30—From the Highlands, Perth. Special News Service and Association of the Great Parade.
8.45—From the Highlands, Perth. Special News Service and Association of the Great Parade.
9.0—From the Highlands, Perth. Special News Service and Association of the Great Parade.
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10.30—From the Highlands, Perth. Special News Service and Association of the Great Parade.
10.45—From the Highlands, Perth. Special News Service and Association of the Great Parade.
11.0—From the Highlands, Perth. Special News Service and Association of the Great Parade.
11.15—From the Highlands, Perth. Special News Service and Association of the Great Parade.
11.30—From the Highlands, Perth. Special News Service and Association of the Great Parade.

6WF—The Radio Nation

1.0—Special presentation by world leader orchestra and artists.
1.15—Ball on Snow with almost orchestral.
1.30—Class.
2.0—Evening Session.

6WF—Early Evening Session

8.0—Kantata Deluge, Victor Spangh (Chor., Soprano, Basses and Violoncello).
8.15—M. H. Sjölin, Old and New, Flute and Organ.
8.30—Viggo Sjölin, Flute and Organ.
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6WF—Evening Session

8.0—Special presentation by world leader orchestra and artists.
8.15—Ball on Snow with almost orchestral.
8.30—Class.
8.45—Evening Session.
8.0—From Church of Christ, Lake Street, Children's Session conducted by "Daddy Charlie," assisted by the "Tiny Tots" Choir, Chalmers, Mr. S. D. Carter.
8.15—Ball on Snow.
8.30—Professors A. J. Ross, H. S. Clark, Clonard and Max.
8.45—Orchestral selections.
9.0—A Presbyterian Service broadcast from St. Andrew's Church.
A St. George's Day Programme featuring English music and songs from Shakespear.

6ML MONDAY APRIL 25, 1932

6ML—Women's Radio Session

11.0—"Stinging Nettle," orchestral solo.
11.15—"The Day's Radio Club Session."
11.30—Music.
12.0—News service presented by The West Australian Newspaper Co.

6ML—Luncheon Session

1.0 to 2.0—Orchestral, instrumental, and vocal solo.

6ML—Afternoon Session

2.0 to 3.0—Instrumental, vocal and vocal solo.

6ML—Early Evening Session

8.0—Children's Session, by Aunt Jane and Carlo Pöyry.
8.15—Dinner Music.
8.30—The Day's Radio Club Session.

6PR—Evening Session

8.0—Special presentation by world leader orchestra and artists.
8.15—Ball on Snow with almost orchestral.
8.30—Class.
8.45—Evening Session.

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Phone B 4034. MISS R. DUGGAN, LADIES' TOILET SALOON. Specialising in Water and Marcelline Waving. Room 1, Equity Building, Murray St., Perth. (Late Brennan's Arcade.)

Telephone B 1412. FERGUS MacLEOD, Licensed Home, Land & Estate Agent, Hotel & Business Broker, Stock and Station Agent, Mortgage and Investment Broker, Stations and Farms for Sale, All Districts. Agent for Colonial Mutual Fire Insurance Co. (No association whatsoever with any other firm.) Ground Floor, Forrest Chambers, 62 St. George's Terrace, Perth.

HEMSTITCHING Renovations Spoke-Stitching Pin-Tucking. MISSES TWINE & GRIEVE, Dressmakers & Costumiers, Room 26, Royal Arcade, Perth.

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Complete List of the A and B

With Call Sign, Wave Length, and By Whom Owned, with Space to Insert Your Dial Settings.

Table with columns: Call Sign, Dist. No. 1, Dist. No. 2, Wave Length, Power, etc., Name and Location. Lists various radio stations across Australia including Perth, Melbourne, Sydney, Brisbane, and Adelaide.

Class Stations in Australia

With Call Sign, Wave Length, and By Whom Owned, with Space to Insert Your Dial Settings.

Table with columns: Call Sign, Dist. No. 1, Dist. No. 2, Wave Length, Power, etc., Name and Location. Lists various radio stations across Australia including Perth, Melbourne, Sydney, Brisbane, and Adelaide.

City Directory

L. A. PUSEY & CO. NATIONAL BANK CHAMBERS, Murray Street, Perth. Phone B 7747. We specialise in Rooms and Flats. Our list of Houses and Businesses is well worth inspecting. Give us a ring and our car will call for you.

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LADIES' HAIRDRESSING SALON. MISS C. PRESTON (Late "Durren" Salon), Next to Literary Institute, 351 HAY STREET, PERTH. Old Clinic Please Note New Address.

Midland Junction Directory

THE C. & G. STORES, Grocers, Hardware Merchants, Etc., York Road, Midland Junction. Unsurpassed for Quality and Better Value. Tel. MJ 134.

Maylands Directory

ROBINSON & DICK, The Hygienic Low Price Butchers, Right opposite Railway Station, MAYLANDS. Tel. B 5334. Watch Public Notices in "West Australian" each Friday for Week-End Specials.

Victoria Park Directory

THOMAS H. TREBY, D.P.S., R.D.S. DENTAL SURGEON, 888 Albany Road, Victoria Park. Telephone B 5478.

(Continued from Page 67.)

- 8.20—South Perth Choir: Ladies' Chorus: Peace (Gounod).
- 8.25—David Kyle, tenor: I Hear a Voice at Eve (Chadwick); When the Dew is Falling (Macdonald); The River The Rock (Jobert).
- 8.30—South Perth Choir: Gloria in B-flat (Mozart).
- 8.35—New Zealand, women: Skopedy to E. Fiat (Brahms).
- 8.40—Mrs. E. Mitchell and Mr. W. Pearce: vocal duet: When Day is Done (Lamb).
- 8.45—South Perth Male Quartet: Mediant in the Wood (Grove).
- 8.50—South Perth Choir: When Grace Leds (Bishop); I'm a Young Man (Grove).
- 9.00—Phyllis Browning, soprano: Love I Have Won My (Grove); O' My Love, My Love (Grove).
- 9.05—Les Chans, (soprano): Rendons (Grove); Hymn to the Sun (Borovskoy).
- 9.10—South Perth Choir: Largo, arranged by Phyllis (Bishop).
- 9.15—David Kyle, tenor: Distinction (Forness); Phyllis (Mellinger); I Give My Love (Hawley).
- 9.20—South Perth Choir: Where my Caravan Has Brought (Hawley); You Shall see Love (McFarlane).

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- 10.05—South Perth Choir: Where my Caravan Has Brought (Hawley); You Shall see Love (McFarlane).

6ML — TUESDAY APRIL 26, 1932

- 6.00—Women's Radio Session.
- 6.15—Shopping guide, Orchestral selections.
- 6.30—For-Hearts Radio Club Women's Service.
- 6.45—Orchestral and vocal selections.
- 6.55—News service presented by The West Australian Newspaper Co.
- 7.00—Lunchtime Session.
- 7.15 to 7.30—Light orchestral, instrumental and vocal music.
- 7.35—Afternoon Session.
- 7.45 to 8.0—Orchestral and vocal selections.

- 6.00—Early Evening Session.
- 6.15—Children's session by Uncle Eric and Auntie Laurel.
- 6.30—Dinner music.
- 6.45—Fox-Heyl's Radio Club Session.
- 7.0—Dinner music.
- 7.15—News service presented by The West Australian Newspaper Co.
- 7.30—Dinner music.
- 7.45—Interesting Features of Our City Held: talk by Mr. Trevor Lewis.

6ML—Evening Session. CLASSICAL PROGRAMME

- 8.0—Violin and lute: State Opera Orchestra.
- 8.15—My Lovely City: Deutsche Grammophon.
- 8.30—Romance Andante: Alfred Spalding, violin.
- 8.45—Allegretto, Mad Dance: Sidis Sorens, soprano.
- 8.55—Large: Grand Symphony Orchestra.
- 9.10—Dedication: A Dances of Spring from Chinese Fairs: John McCormack.
- 9.25—Minuetto from Suite: Ignaz Friedmann, piano.
- 9.40—Clichetille (Waltz Song), Lucasta Holt, soprano in Italian.
- 9.55—Brandsburg Concerto: Philadelphia Symphony Orchestra.
- 10.10—Triolet, Air des Ripiers: Maria Kuznetsov, soprano.
- 10.25—Spanish Dance: Vito: Pablo Casals, viola.
- 10.40—The 102 Corporal: Theodore Chailoff, bass in Russian.
- 10.55—La Tauxa Selection: Unger Dula Or.
- 11.10—Mazurka: Australian Pyralis, tenor in Italian.
- 11.25—Fantasia, Dr. Harold Darke, organ.
- 11.40—How Fair This Spot: To the Children: John McCormack, tenor.
- 11.55—Cavatina: Alfred Spalding, viola.
- 12.10—Love Has Eyes: Dorothy Gossard, soprano in English.
- 12.25—Cavalletta Rusticana: Grand Symphony Orchestra.
- 12.40—Dance the Petrovsky: Theodore Chailoff, bass in Russian.
- 12.55—Berceuse: Ignaz Friedmann, piano.
- 1.10—The Kiss: Lucasta Holt, soprano in Italian.
- 1.25—Chorus, Prelude: Philadelphia Symphony Orchestra.
- 1.40—Un Bel di Vedremo: Maria Kuznetsov, soprano.
- 1.55—Spanish Dance: Pablo Casals, viola.
- 2.10—The Horn: Theodore Chailoff, tenor in French.
- 2.25—Non Fanno Più: Lucasta Holt, soprano in Italian.
- 2.40—Dance Overture: Grand Symphony Orchestra.
- 2.55—God Save the King.

6PR — TUESDAY APRIL 26, 1932

- 10.30 to 11.30—Women's session. Music.
- 1.0 to 2.0—Music.
- 2.30 to 3.30—Vogue Radio Hour music.
- 3.40 to 7.0—Children's session conducted by Uncle Peter.
- 7.0 to 8.0—News service supplied by The Daily News. Dinner music.

6PR—Evening Session.

- 8.0—Ji Tivvatoe Selections, B.B.C. Wireless Grand Orchestra. Serenade, M. Hayward. Floral Dance, Peter Dawson. Dancing Skudora, Whitman and Grah. Dance Night, Cyril Scott. Scherzo, Budapest Quartet. Fille de Madame Angot, Goldstream Grand Band.
- 8.10—Shell Company's Programme.
- 8.20—Symphony, Piano and Organ. Ophelia with her Love, Lohette. O April, John Ireland. Belle Lorraine the Madonn, Mayring Organ.
- 8.30—Major Carlisle's Address.
- 8.40—Our District Victor, Wank Wynon. Hotteloff, H. Cassado. Popular Song. Grandeur Grand Band. Everybody's Melodie, Lucie James. Come Blow My Horn, Lohette and Kindell. Serenade, Choralovky Trio. One More Day my John, Prosser. Lucie, Macintosh. The Herrieter, Huber. The Staters, Grandeur Grand. To Spring, Salmond. Song of the Brack, Sweetest Diver, Thus Blooms, Thorton. Belle of New York Selections, Grandeur Grand.
- 10.30—Close.

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6WF — WEDNESDAY APRIL 27, 1932

- 6.00—The Radio Mation.
- 6.15—Comic opera, old and new.
- 6.30—Talk by a representative of the Presbyterian Women's Missionary Union.
- 6.45—Musical pot pourri.
- 6.55—Close.

6WF—Early Evening Session.

- 6.0—Goodnight stories by Uncle Ben.
- 6.15—Hotel Ann Club session, conducted by J. G. Paterson.
- 6.30—Dinner music by Harris, Scott and Skelton.
- 6.45—Antia Fitzgerald, talk on English for this year's Junior University Examinees.
- 7.00—Weather report, market reports, and Stock Exchange information.
- 7.15—The Daily News news service.
- 7.30—What is on the air tonight.

6WF—Evening Session.

- 8.0—Recital by the W.A. University Musical Exhibitioners. Betty Greenwood, pianist: Prelude to E Minor Suite (Mozart); Phyllis Browning-Turner, contralto: Three Stanzas a Pe Tom, Lewis (Kier); Housh, Rook, Rook (Waldow); Betty Greenwood, pianist: Gavotte (Bach-Brahms); Leo Chas, violoncello: Lovers (Bach-Krieger); Catherine (Browning); Phyllis Browning-Turner, vocal: Another the Linden Blume (Hingst); Hymn to the Sun (Borovskoy); Betty Greenwood, pianist: Polonaise in C Sharp Minor (Chopin); Leo Chas, Concerto in A Minor (Bach); Phyllis Browning-Turner, vocal: Roadways (Lohr); Trees (Rohr); A Birthday (Cowen); Betty Greenwood, piano: Study in F Sharp (Arensky); Leo Chas, Preludio and Allegro (Krieger); Phyllis Browning-Turner, Dandelion of the Rose (Taylor); O Ship that Sailed Slowly on (Coleridge-Taylor); Betty Greenwood, Concerto of Westminster Gavotte (Shield); Leo Chas, Serenade (Pierce); La Prietemps (Mouland).
- 8.15—Talk by E. A. James: Julius Caesar: the Man.
- 8.30—Come from the Movies, with contributions by D. Henslerick, Adagio Cantabile, Viraux. Anna Symphonie in 2 (Hertz). The Marriage of Figaro, and Bell, Bell, a bel Gavotte from Don Giovanni (Mozart). Always we see Troops, Symphony No. 6 (Beethoven). Andante, Andante Pastorale, from William Tell (Rossini). Two Schubert songs, The Wanderer, the Lovers, Andante Cantabile (Tschelichowsky).
- 10.30—Late weather forecast and announcements.
- 10.35—Melodies from our leads.
- 10.45—Features of tomorrow's programme.
- 11.0—National Anthem. Close.

6ML — WEDNESDAY APRIL 27, 1932

- 6.00—Women's Radio Session.
- 6.15—Shopping guide, Orchestral selections.
- 6.30—"Parade Songs" Interlude by Edna Curtis, soprano, accompanied by the Orchestra of the West Australian Newspaper Co.
- 6.45—Music.
- 6.55—News service presented by The West Australian Newspaper Co.
- 7.00—Lunchtime Session.
- 7.15—Market Report, Orchestral, Vocal and Instrumental Music.
- 7.30—Afternoon Session.
- 7.45—Light orchestral, vocal and instrumental music.

6WF — WEDNESDAY APRIL 27, 1932

- 6.00—The Radio Mation.
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- 6.30—Talk by a representative of the Presbyterian Women's Missionary Union.
- 6.45—Musical pot pourri.
- 6.55—Close.

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- 10.30—Late weather forecast and announcements.
- 10.35—Melodies from our leads.
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- 11.0—National Anthem. Close.

6WF — THURSDAY APRIL 28, 1932

- 6.00—The Radio Mation.
- 6.15—Comic opera, old and new.
- 6.30—Talk by a representative of the Presbyterian Women's Missionary Union.
- 6.45—Musical pot pourri.
- 6.55—Close.

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- 10.30—Late weather forecast and announcements.
- 10.35—Melodies from our leads.
- 10.45—Features of tomorrow's programme.
- 11.0—National Anthem. Close.

6ML — THURSDAY APRIL 28, 1932

- 6.00—Women's Radio Session.
- 6.15—Shopping guide, Orchestral selections.
- 6.30—"Parade Songs" Interlude by Edna Curtis, soprano, accompanied by the Orchestra of the West Australian Newspaper Co.
- 6.45—Music.
- 6.55—News service presented by The West Australian Newspaper Co.
- 7.00—Lunchtime Session.
- 7.15—Market Report, Orchestral, Vocal and Instrumental Music.
- 7.30—Afternoon Session.
- 7.45—Light orchestral, vocal and instrumental music.

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8.45—Catherine Johnson, in the Mountain Pass; in the Mopewell National Graph Orchestra.

9.03—Parade; Radio Auckland, Australia.

9.07—Alban Lamb; Radio Channel, 1932.

9.16—The Garden of Allah; Peter Dawson.

9.4—Morning Noon and Night; Orchestra; H.M. Goldstrom; Opera Band.

9.4—Dawn South; Everybody Home Group.

9.12—Merry-go-round; Radio Channel, 1932.

9.18—Le Cygne; Du Grand Hotel; David Ben; piano; H. H. Colvin, 'cello.

9.48—Oh, How I Miss You Tonight; John McCosack, tenor.

9.53—La Fille De Malibran; Opera Selection; Goldstrom Opera Band.

9.53—My Darling; Dawn in Darkness; Stuart Robertson, voice; orchestra.

9.54—Merry Water Walk; Sandy MacFarlane, organ.

9.57—Oh to Philadelphia; James McCaffrey, 10, baritone.

9.40—Whistling Rufus; Emily Galloway's Radio Quartet.

9.48—Dance the Yeh; Radio Auckland, one female.

9.47—Believe; Radio Channel, violin.

9.52—Star of the East; Peter Dawson.

9.54—Pagan Dance; Orchestra; Goldstrom Orchestra.

10.4—Class; Home; Everybody Home Group.

10.4—Suburban Falls; No. 4; Duo; Dawson, piano.

10.4—Lambert; Duo; Duo; Duo, violin; David Ben; piano; H. H. Colvin, 'cello.

6PR — THURSDAY
APRIL 28, 1932

10.11—Sun Vangel in Remembrance; John McCosack, tenor.

10.12—My Hero, The Chausson Suite; Sandy MacFarlane, organ.

10.18—Fiddlers and His Dancers; Radio Falls; John McCosack, tenor; orchestra.

10.21—National Moments; London Palladium Orchestra.

10.30—Dad Save the King.

10.30 to 11.30—Women's Session, music, 1.0 to 2.0—Music.

1.30 to 2.30—Yogur Radio Hour; Radio Falls; for Ladies, by the Fashion House.

2.30 to 3.0—Tahiti Wine sponsored ball room.

3.0 to 4.0—Daily News news review.

6PR—Evening Session.

6.0—Lady of the Rose, Black Diamond Band. Opera of Derivides; Hoffsta. Love has a Song, Francis Alda. Here Girl's Dream, Neapolitan Trio. Faust Selections, Apollo Orchestra. Yakovlev, Whittaker and Cook. Hungarian Showpiece No. 2. Quixote Malton. Academic Public Club. Neapolitan, Giffman and Dorch. Air from Concerto, Kozlov. There we are Women and Gork. Carmen, Haydn. Selections. Radio Falls, Wadsworth, Mad-

6WF — FRIDAY
APRIL 29, 1932

6WF—The Radio Nation.

8.0—Good music and reflecting talk.

8.40—Today's Feature Story.

9.00—Popular selection.

9.30—Class down.

6WF—Early Evening Session.

6.0—Goodnight Stories by Uncle Sam, and concert by children of the 6WF Radio Club.

7.0—Dinner Music.

7.15—Musical Selections, reading accounts and news and testing suggestions.

7.30—Weather and Market Reports and Stock Exchange Information.

7.45—"The Daily News" News Service.

7.55—What is on the air tonight.

6WF—Evening Session.

8.0—Overture, Parade of the Tin Soldiers (Jenny).

8.4—The Necessities. Arranged and produced by Harry Graham, supported by Dorset's Evening, soprano, Beryl Howard, contralto; Harry Webster, baritone; Percy Newton, saxophone; Isabel Reilly, popular vocalist; Holly Edwards, contralto; Faylin Blatt, pianist.

10.0—Late weather forecast and amateur news.

10.4—National news.

10.45—Features of tomorrow's programme.

11.0—National Anthem. Class down.

6ML — FRIDAY
APRIL 29, 1932

6ML—Women's Radio Hour.

11.0—"Shopping Guide," orchestral selections.

11.10—"Foot Dancer," talk by Mr. H. Nelson.

11.20—Music.

11.40—Music, orchestral and vocal selections.

12.0—News Service, presented by the "West Australian" Newspaper Co.

6ML—Luncheon Session.

12.30 to 1.0—Light orchestral and vocal music, market report.

6ML—Afternoon Session.

1.0 to 1.45—Light orchestral and vocal music.

6ML—Early Evening Session.

3.45—Children's Session by Annie Jourd and Uncle Eric.

4.25—Dinner Music.

4.40—Dinner Music.

4.45—Fox-Hay's Radio Club Session.

5.35—Dinner Music (contd.).

7.15—News Service, presented by the "West Australian" Newspaper Co.

7.30—Orchestral and Vocal Music.

6ML—Evening Session.

8.0—Italian Act; International New Opera.

8.3—Love's Garden of Home; Seymour Faust; Whittaker organ.

8.4—What a Wonderful Wedding That Will be; Harmon Hall and Co. Orchestra.

8.8—Mazurka, Polka, Schottische; Peter Dawson, violin.

8.12—Jazz Jigs and Rags; Radio Falls.

8.15—Kyrvalin's rhapsody being described in relayed from Daily Theatre.

8.45—My Heroine of Love; Del Walgrave, organ with band.

8.48—Chanson; Reginald Ford, Warlike.

8.53—Golden Gate; Harmon Hall and Co. Orchestra; Polka, Schottische; Peter Dawson, violin.

9.15—Romance; Radio Falls.

9.30—Evening description continued, from the Daily Theatre.

10.00—"Dad Save the King."



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6PR — FRIDAY
APRIL 28, 1932

10.30 to 11.30—Women's Session, music.

1.0 to 2.0—Music.

4.30 to 5.30—Yogur Radio Hour Music.

6.20 to 7.0—Children's Session conducted by Uncle Peter.

7.3 to 8.0—"Daily News" News Service, Dinner Music.

6PR—Evening Session.

8.0—The Silver Swan; Radio Falls. Opera Selections No. 14, Mark Henderson. Song of Songs, Richard Crockett. Dates of the Gaynes, 1931. Neapolitan in F. No. 1. Neapolitan. Opera. March. Madry, Tom Hall, David, Harigold, Peter Dawson. Modulation, Robert Dawson.

8.15—Gardening Talk by Mr. W. Dawson.

9.0—Dance Progression.

10.30—Class.

6WF — SATURDAY
APRIL 30, 1932

6WF—Afternoon Session.

1.0—From Headquarters: Results of the first three events of W.A. Golf Club's meeting.

1.15—From W.A.G.A. Ground: Description of the football match.

1.30—From Headquarters: Sporting commentary of 10th event.

1.45—From W.A.G.A. Ground: Description of the football match.

2.00—From Headquarters: Sporting commentary of 11th event.

2.15—From W.A.G.A. Ground: Description of the football match.

2.30—From Headquarters: Sporting commentary of 12th event.

2.45—From W.A.G.A. Ground: Description of the football match.

3.00—From Headquarters: Sporting commentary of 13th event.

3.15—From W.A.G.A. Ground: Description of the football match.

3.30—From Headquarters: Sporting commentary of 14th event.

3.45—From W.A.G.A. Ground: Description of the football match.

4.00—From Headquarters: Sporting commentary of 15th event.

4.15—From W.A.G.A. Ground: Description of the football match.

4.30—From Headquarters: Sporting commentary of 16th event.

4.45—From W.A.G.A. Ground: Description of the football match.

5.00—From Headquarters: Sporting commentary of 17th event.

5.15—From W.A.G.A. Ground: Description of the football match.

5.30—From Headquarters: Sporting commentary of 18th event.

5.45—From W.A.G.A. Ground: Description of the football match.

6.00—From Headquarters: Sporting commentary of 19th event.

6.15—From W.A.G.A. Ground: Description of the football match.

6.30—From Headquarters: Sporting commentary of 20th event.

6.45—From W.A.G.A. Ground: Description of the football match.

7.00—From Headquarters: Sporting commentary of 21st event.

7.15—From W.A.G.A. Ground: Description of the football match.

7.30—From Headquarters: Sporting commentary of 22nd event.

7.45—From W.A.G.A. Ground: Description of the football match.

8.00—From Headquarters: Sporting commentary of 23rd event.

8.15—From W.A.G.A. Ground: Description of the football match.

8.30—From Headquarters: Sporting commentary of 24th event.

8.45—From W.A.G.A. Ground: Description of the football match.

9.00—From Headquarters: Sporting commentary of 25th event.

9.15—From W.A.G.A. Ground: Description of the football match.

9.30—From Headquarters: Sporting commentary of 26th event.

9.45—From W.A.G.A. Ground: Description of the football match.

10.00—From Headquarters: Sporting commentary of 27th event.

10.15—From W.A.G.A. Ground: Description of the football match.

10.30—From Headquarters: Sporting commentary of 28th event.

10.45—From W.A.G.A. Ground: Description of the football match.

11.00—From Headquarters: Sporting commentary of 29th event.

11.15—From W.A.G.A. Ground: Description of the football match.

11.30—From Headquarters: Sporting commentary of 30th event.

11.45—From W.A.G.A. Ground: Description of the football match.

12.00—From Headquarters: Sporting commentary of 31st event.

12.15—From W.A.G.A. Ground: Description of the football match.

12.30—From Headquarters: Sporting commentary of 32nd event.

12.45—From W.A.G.A. Ground: Description of the football match.

1.00—From Headquarters: Sporting commentary of 33rd event.

1.15—From W.A.G.A. Ground: Description of the football match.

1.30—From Headquarters: Sporting commentary of 34th event.

1.45—From W.A.G.A. Ground: Description of the football match.

2.00—From Headquarters: Sporting commentary of 35th event.

2.15—From W.A.G.A. Ground: Description of the football match.

2.30—From Headquarters: Sporting commentary of 36th event.

2.45—From W.A.G.A. Ground: Description of the football match.

3.00—From Headquarters: Sporting commentary of 37th event.

3.15—From W.A.G.A. Ground: Description of the football match.

3.30—From Headquarters: Sporting commentary of 38th event.

3.45—From W.A.G.A. Ground: Description of the football match.

4.00—From Headquarters: Sporting commentary of 39th event.

4.15—From W.A.G.A. Ground: Description of the football match.

4.30—From Headquarters: Sporting commentary of 40th event.

4.45—From W.A.G.A. Ground: Description of the football match.

5.00—From Headquarters: Sporting commentary of 41st event.

5.15—From W.A.G.A. Ground: Description of the football match.

5.30—From Headquarters: Sporting commentary of 42nd event.

5.45—From W.A.G.A. Ground: Description of the football match.

6.00—From Headquarters: Sporting commentary of 43rd event.

6.15—From W.A.G.A. Ground: Description of the football match.

6.30—From Headquarters: Sporting commentary of 44th event.

6.45—From W.A.G.A. Ground: Description of the football match.

7.00—From Headquarters: Sporting commentary of 45th event.

7.15—From W.A.G.A. Ground: Description of the football match.

7.30—From Headquarters: Sporting commentary of 46th event.

7.45—From W.A.G.A. Ground: Description of the football match.

8.00—From Headquarters: Sporting commentary of 47th event.

8.15—From W.A.G.A. Ground: Description of the football match.

8.30—From Headquarters: Sporting commentary of 48th event.

8.45—From W.A.G.A. Ground: Description of the football match.

9.00—From Headquarters: Sporting commentary of 49th event.

9.15—From W.A.G.A. Ground: Description of the football match.

9.30—From Headquarters: Sporting commentary of 50th event.

9.45—From W.A.G.A. Ground: Description of the football match.

10.00—From Headquarters: Sporting commentary of 51st event.

10.15—From W.A.G.A. Ground: Description of the football match.

10.30—From Headquarters: Sporting commentary of 52nd event.

10.45—From W.A.G.A. Ground: Description of the football match.

11.00—From Headquarters: Sporting commentary of 53rd event.

11.15—From W.A.G.A. Ground: Description of the football match.

11.30—From Headquarters: Sporting commentary of 54th event.

11.45—From W.A.G.A. Ground: Description of the football match.

12.00—From Headquarters: Sporting commentary of 55th event.

12.15—From W.A.G.A. Ground: Description of the football match.

12.30—From Headquarters: Sporting commentary of 56th event.

12.45—From W.A.G.A. Ground: Description of the football match.

1.00—From Headquarters: Sporting commentary of 57th event.

1.15—From W.A.G.A. Ground: Description of the football match.

1.30—From Headquarters: Sporting commentary of 58th event.

1.45—From W.A.G.A. Ground: Description of the football match.

2.00—From Headquarters: Sporting commentary of 59th event.

2.15—From W.A.G.A. Ground: Description of the football match.

2.30—From Headquarters: Sporting commentary of 60th event.

2.45—From W.A.G.A. Ground: Description of the football match.

3.00—From Headquarters: Sporting commentary of 61st event.

3.15—From W.A.G.A. Ground: Description of the football match.

3.30—From Headquarters: Sporting commentary of 62nd event.

3.45—From W.A.G.A. Ground: Description of the football match.

4.00—From Headquarters: Sporting commentary of 63rd event.

4.15—From W.A.G.A. Ground: Description of the football match.

4.30—From Headquarters: Sporting commentary of 64th event.

4.45—From W.A.G.A. Ground: Description of the football match.

5.00—From Headquarters: Sporting commentary of 65th event.

5.15—From W.A.G.A. Ground: Description of the football match.

5.30—From Headquarters: Sporting commentary of 66th event.

5.45—From W.A.G.A. Ground: Description of the football match.

6.00—From Headquarters: Sporting commentary of 67th event.

6.15—From W.A.G.A. Ground: Description of the football match.

6.30—From Headquarters: Sporting commentary of 68th event.

6.45—From W.A.G.A. Ground: Description of the football match.

7.00—From Headquarters: Sporting commentary of 69th event.

7.15—From W.A.G.A. Ground: Description of the football match.

7.30—From Headquarters: Sporting commentary of 70th event.

7.45—From W.A.G.A. Ground: Description of the football match.

8.00—From Headquarters: Sporting commentary of 71st event.

8.15—From W.A.G.A. Ground: Description of the football match.

8.30—From Headquarters: Sporting commentary of 72nd event.

8.45—From W.A.G.A. Ground: Description of the football match.

9.00—From Headquarters: Sporting commentary of 73rd event.

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9.45—From W.A.G.A. Ground: Description of the football match.

10.00—From Headquarters: Sporting commentary of 75th event.

10.15—From W.A.G.A. Ground: Description of the football match.

10.30—From Headquarters: Sporting commentary of 76th event.

10.45—From W.A.G.A. Ground: Description of the football match.

11.00—From Headquarters: Sporting commentary of 77th event.

11.15—From W.A.G.A. Ground: Description of the football match.

11.30—From Headquarters: Sporting commentary of 78th event.

11.45—From W.A.G.A. Ground: Description of the football match.

12.00—From Headquarters: Sporting commentary of 79th event.

12.15—From W.A.G.A. Ground: Description of the football match.

12.30—From Headquarters: Sporting commentary of 80th event.

12.45—From W.A.G.A. Ground: Description of the football match.

1.00—From Headquarters: Sporting commentary of 81st event.

1.15—From W.A.G.A. Ground: Description of the football match.

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2.00—From Headquarters: Sporting commentary of 83rd event.

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2.30—From Headquarters: Sporting commentary of 84th event.

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12.30—From Headquarters: Sporting commentary of 200th event.

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1.00—From Headquarters: Sporting commentary of 201st event.

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2.00—From Headquarters: Sporting commentary of 203rd event.

2.15—From W.A.G.A. Ground: Description of the football match.

2.30—From Headquarters: Sporting commentary of 204th event.

2.45—From W.A.G.A. Ground: Description of the football match.

3.00—From Headquarters: Sporting commentary of 205th event.

3.15—From W.A.G.A. Ground

6ML's SERVICE.

BROADCASTING FROM AWKWARD PLACES.

As a B Class Station, 6ML undoubtedly gives the listening public full measure in relayed broadcasts. What with boxing, cricket, tennis, motor racing and other outside broadcasts their announcers and operators, often find



6ML Operators at Work.

themselves perched up in most inaccessible places. This illustration shows the 6ML Announcers on the roof of the hangar at the aerodrome at Subiaco, describing the motor and motorcycle races at Brooklands.

Mr. B. Samuel, the station manager, is seen with pencil and paper checking the results, with Mr. Upphart, one of the station engineers, attending to the relaying apparatus. No easy chairs on this job. Four hours on a sloping galvanized iron roof, in the blazing sun, was not much pleasure for them, but it's their job to see that 6ML's reputation is maintained by giving listeners an interesting and accurate description of the events, and so they hustled themselves to the highest point of vantage, from where they had a bird's eye view of the course.

A Floating Transmitter.

Prof. Molchanov, of the Soviet Institute for Polar Exploration, has mounted a small transmitter on a buoy which will be anchored in the Bering Straits. This transmitter will automatically pass on meteorological observations. In this way it is hoped to gather valuable data without the necessity of equipping an expensive expedition. The first experiments with this floating transmitter will be carried out next Spring.

London's Successful Drive Against Pirates.

The Post Office Wireless Detective Vans have certainly "put the wind up" the radio pirates in London. As these words are written, I understand that over 70,000 extra wireless licences have been taken out by people in London alone who would otherwise have continued to use sets unlicensed. There are now nearly four million licensed sets in the British Isles.

A Great Little Two for the Country Man

Particulars of a Set That Gives Excellent Results.

WITH the many fine A.C. sets on the market there seems to be little need for the city man to build his own receiver, as the cost of a home-made set would probably exceed that of the latest 100 A.C. models, but the countryman is not so fortunately placed and in these times of stress an expensive set cannot be considered by many. However, we have received a letter in reply to the request for the circuit of a little two valve battery receiver that is capable of excellent results in the country districts. This is what the owner and operator of the set has to say about it:

"To the Editor.—I have drawn out the circuit of the country two valve, also the plans on the lines I worked it. As to results, on a fairly long aerial the following were received over a fortnight at Dumbleyung New South Wales—2CO, 2FC, 2HL, 2GB, 2KY, 2UW, 2VF Sydney, 2NC Newcastle, 2AY Albury, 2MO Geraldton, Victoria—3LD, 3AK, 3DB, 3KZ, 3UZ Melbourne, 3JA Ballarat, 3WR Wangaratta, 3TR Trafalgar, 3GL Geelong, and experimental stations 3RF Elwood and 3KU

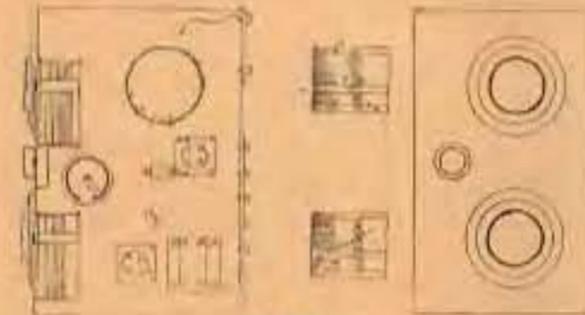


DIAGRAM 2

South Australia—3CK, 3AD, 3KA, 3DN.

Queensland—4QG, 4HC Brisbane.

West Australia—6WF, 6ME, 6PR.

New Zealand—4YA Auckland, 2YA Wellington, 3YA Christchurch, also KZRM Manuka and five Japanese stations.

Well, those results speak well for the set's capabilities and we are publishing the circuit for the benefit of country readers who may desire to make up the receiver.

The diagram 1 shows the circuit used is similar to the well known Renault circuit, except that the aerial is auto coupled to the tapped grid coil. The following information will enable you to make up the set as used by Mr. Peeling. The layout is shown on the diagram 2, as is also the position of the windings on the coil transformers. Any good transformer with a ratio of 1 or 2 to 1 can be used in the audio stage. A 90-volt battery for the H.T. will be sufficient and three dry cells will be needed to supply the current for lighting the valve filaments.

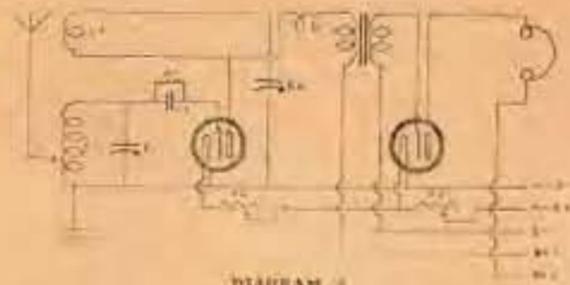


DIAGRAM 1

ments. The set is designed for use with headphones, and the stations brought in by Mr. Peeling were all of excellent phone strength.

C1 00035 variable, C2 00025 variable, C3 0002 R1 5 meg GL, R2 30 ohm rheo rheo baseboard mounting, R3 30 ohm rheo panel type.

L1 35 turns D5C wire wound at 3, 6, 9, 12, 15, 20, 25, 30, 40 from earth coil, L2 25 turns 31 D5C wire wound in same direction.

Former bakelite 3 inches diameter 2 1/2 inches long, and the windings are approximately 1 inch from ends with 1 inch between, and the windings coming out as shown make for convenient wiring.

R2 drops detector filament voltage to best point. R3 necessary in case 3 dry cells used for filaments, also catches off set.

A high and fairly long aerial should be used. When grid bias not necessary join C— to A—.

Two valves of A415 type give good results. Detector plate coils should be adjusted for smooth regeneration.

The components necessary can be obtained from either Burns Radio Department, Craig's, Pilgerton's Radio Exchange, Hay street, or from Carrick's Radio Store, Brennan's Arcade, Perth. When writing just ask for the necessary components for the Country Two in the Exhibition Number of Wireless News. If you are looking for a good little set for phone reception, here is a job that is cheap to make and very efficient. In addition to the stations mentioned, many others came in at weak strength.

NOTES ON WORKING ALUMINIUM.

Probably the best way of surfacing aluminium is to rub it down to a matt appearance with fine emery paper, using sufficient oil to keep the work well lubricated. Afterwards running over with pumice powder and water, when a very fine finish will be obtained.

When a lubricant is needed for drilling, especially when working a centre bit, use chemically pure turps. Ordinary commercial turps will not do.

Aluminium can be satisfactorily soldered as follows. A special solder is used for the purpose and this is made by first melting 1 part of tin, then adding 1 part zinc. When the zinc has melted, stir well and pour to set in the form of a bar. Oleic acid is used as the flux.

The parts to be soldered are scraped quite clean, and the flux applied immediately after. It is important that this latter point be observed, as aluminium oxidises rapidly. A file bit iron should be used.

If a hammer is made use of for bending aluminium, it is practically certain to make dents that cannot be completely removed. By using a suitable wooden mallet, this trouble can be easily avoided.

No home is complete without one of our Radio Receivers.

A DAILY COMPANION FOR THE HOUSEWIFE.

A Charm all Day. A Comfort at Night.

A FAMILY EDUCATOR AND ENTERTAINER. RADIO, THE GLOOM DISPELLER.

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THE LEADERS OF THEM ALL — SUPER SETS BY "AIRZONE."

See the Special Radio Display in our Windows during Exhibition Week.

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The Easiest of Easy Terms Arranged With Pleasure.

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Advertisers will appreciate the mention of this Paper in your Enquiries.

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The Famous

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PRICE:

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Other Models include:-

4 Valve (including Rectifier).

Mantel 4.

Phono-Radio 6.

Battery-Operated 7.

Now the famous G.E. Radio, backed by the reputation of General Electric Company, one of the world's greatest electrical and radio organisations, is available in Australia.

With the advent of the new and undoubtedly revolutionary G.E. Radio, however you obtain a reception that is vital and real—not a pale counterpart version of the living original.

It shows ultra-sensitivity—both "A" and "B" class systems can be tuned in on almost a hair line point on the dial and there are without interference. Marked sensitivity gives good intermittent reception.

Elimination of cross talk and modulation hum is achieved by employing the new variable MU Radio-trom E.E. which completely counteracts hum and buzziness of tone.

Maximum power amplification without distortion and markedly better tone by means of the Radiotron Pentode valve.

Believe your own ears! See and hear the G.E. Radio at the Exhibition, or in our showrooms any day.

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894 HAY ST., PERTH.



Silas Simple Sees The Show. Silas Writes Home.

You, gentle reader, will know more about the ever onward march of radio science after you've seen the wonderful displays at the Radio-Electrical Exhibition.

Dere Ned, Dad and Mom, and all the Kids,—

I'm just ritin ter let yer noc about the visit ter Perth. Let me tel yer Pop, this ere city ain't no ordinary town and everybody seems so frendly to yer, altho evryone seems ter be broke, they often takes a delite in showing yer round, and they aint even tried to sell me the no Konnonwealt Hank bidding. O Yuz and wife I look of it, I was taken to the wireless exhibition tother site and I might yer could a all been their. I larnd a fer-rash but shows electric and some things I never seen skained. Quar kriters, these rados sailmen, might seem to be a tribble to em. They occiplines evrythin to yer free gratis and ter nothing, but some of em is inclined to exaggerat like Rufe Gentle dos down one. They tries ter tel me that electric plate was not a thing yet est orf, but I dont believe em, dereyew. all the electric larms ad stanch their wil rados and oel things wat goes by electricity, but they never ad any electric trams ther, I suppose that was becase it wats a silent exhibition. The first stawl I roun up ter was Cathlyk. Ouz are yer our Cathlyk I arsts, im not our cathlyk he sez, I'm representin the one of a 1000 rados parts O I sez sorry like, what appened to it, why nuffin be answer, well I arks why dont yer we it klosed up, but my dere fellow he sez lamilar eke, it dont need klosing. O I replies well I kan say it seem folks is most satisfied and goes ter par on. Old he sez, av yer seen the no Diamond batteries, no I answer av you we settins he sez in the sailman of em. O that's orf rite I replies I noc yer kant elgit, yer looks onest ter me are yer a good sailman I arsts im, I spe av sez a yer sez sailmen em in my fancie. Go on I sez well I dont know em, now I kontinued and saidin we littel peak ther are the wot later tipe of der batterie are they american I arsts, so he replies they's Orystuhan, then why are they dey I arsts. look he replies, what der yer soppoy wud appen if I arst pepple tel sorts of questions like that, Yuz mite be able ter answer some of mine I sez and waxes out. The next stawl I totta ter was Arringtons, is our Arrington about I arsts, no sez the young fellow kamed Sidney, after the bridge, is there anyfink I kan do for yer, well I arsts wat are yer representin Kakerfons rados he sez, av them the folks that makes the torkeys sez I yuz sez he av yer ard em, too rite I answer but thats oel rite I fergive em, I wont tell anybody, is that to a replied larfing, but I still dont see wat it is to larf about. Then I went to another stawl were they was desuplae Airsons rados. just as I was avving a look the fellow standin behind the rados sez ter me gardin me man but did yer ever see this rados befor me, I dont noc sez I, wen did yer first see it, O replies e I didnt mean that I ment ave yer ever ard this radio standin befor me well I sez, I dont ever remember standin befor yer. Anyway he sez wether yerve ard it or not its the finest rados on the market, I'll take yer word for it he answer. thanks sez e im sorry I kant turn it on, thanks sez I but I ad a drink plate I em in. Nice

chay e was. Wen I cant to the next bloke I sez are yer seeing rados to, yuz he answer, ow did yer guess. Ouz cum I arsts that yer av so many rados ere. Pong-gratidoned sez e yer I answer they must be, havnt seen one yet. Nice plus yer got ere I sez O e replied this is ont a stawl well I answer smart like I dont see wot yerve got to stawl ahawt with so much konperation, wud yer like to peruse the no Radeolar e arsts me I dont no I sez but I'll have a look at it Okay sez e, real american like and I looks it over well I sez after a while I cant see anyfink rong wit it, so he answer of korse yer cant, there aint anyfink rong wit it, well I sez I was rite waten I, yer were in adobe. yer the sailman I arsts yer sez e, the bloke they kawled Artchey and now it yer wil step inside I kan show yer sam with illuminated dial, wat sailman sez I, no rados sez e. Now e kontinued put yer ear up klose to this ere Wireless Nos piller and ear the music, O no yer dont I sez and get oel water in me ear, I been kout that way befor, and I passes on. Yerve oel of Nibelens wud they ad a stawl there and wot der yer think they ad in it well I'll tel yer—more rados, I was just gointer on on wen the sailman stops me and gives me a orful lrite dont I noc yer he arsts I dont no I answer, well were av yer some me befor he arsts. I look ard at him and seem as ow is clothes was veri shabby I arsts, im if he was a bank teller, but he wud be want, but he sez we have gold standard ere in rados. O sez I, yer sez e, im representin Nibelens and the famous Vogue rados, well I aint no lover of fashions sez I and mizzed orf. Eke I sez to a young fellow at Atkins stawl eke sez e were annding the Troubadour, why sez I wats he done, annding sez e ere it is sez e pointing to a rados set thats the Troubadour O I replies I dont yer was looking about Raben betz, o but a koge it wats the listeners wat annded im. I then went on ad a look at GWP's mikerfone and I sez to a chap standin ther are yer the answerer and e sez no I aint, that's oelrite I sez I wasnt goin to urt yer. He sez that's Port Daily standin ther, but dont tel im I told yer, I as a tock ter Port and was veri surprised, he seemed quite intelligent. Yer no dad thes rados answerers aint really wily at orf, its ont the way they tock. At another stawl a bloke sez would yer like to have a look weter the Rife, I thort he ment the big pub but it was another rados set, and a peb to. At another stawl I sure a thing with more wind than an insurance agent, the only dif ference was yer cud turn the Silovack orf like yer cant do the agent wat came up one, they no ad some answer rados, wit the same Beal and another eil of a name attached to it. At Masgroves stand a fellow wats me if I tried the latest soupa, I sez no we allus stuck to tomattoe soupa at one, any ow if id wanted it they was no chance of gettin any with the crowd round that stawl. Well there's a lot more I cud tel yer but the ink pot (R the dam at comes gone dry, so I'll tel yer more wen I get quot. Yours in aste, SILAS



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THE Litophone RADIO

Each year has gifts to the public better radio receivers, but 1932 reveals the Perfect Receiver in the new "Litophone" Radios. Sets positively without equals, embodying as they do all the latest in receiver design, and at prices that, for sets of their high standard, simply must appeal.

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In Our Mail Bag.

The Star Broadcasting Artist of the West.

PAUL DALY, "THE TONIC," EASILY FIRST.



Paul "The Tonic" to be taken nightly.

If a plebiscite were taken as to who is regarded by listeners in the West as our Star Artist on the broadcast, there is no doubt that jovial Paul Daly would be an easy winner. His happy-go-lucky manner and witty remarks have, we venture to say, brought more smiles from listeners than any other broadcast artist ever heard over the air here. That is what you want: bright and cheering programmes, and Paul is the boy to deliver the goods. In this morning's mail is a letter from a listener at Mount Lawley, who listened in to the Community Night from 6WF on 6th inst., which is typical of many we receive. The writer states:

"The more we hear of Paul Daly, the more I am convinced that John Henry's appreciation of him, published in your paper, was right to the point. Last night he changed my household from grave to gay with the excellent manner in which he conducted the community singing. He seems never at a loss just at the right moment to introduce some clever witicism that infects not only his listeners but artists and those at the studio. His items are stand out and quaint remarks, clever jokes, mark him, I consider, as the outstanding broadcast artist here. To my way of thinking his repertoire is amazing; we hear a good deal of him, but seldom does he repeat his items or jokes and I am sure there is no other artist here who could appear as Daly does without becoming stale. He never will, for not only is he a good artist, but a tonic and gloom dispeller in the community. It mystifies me where he finds all his jokes, and some of the best I have ever heard have come from him. Take one he gave us last night when he was urging the people at the studio to sing up. He stated: "Now, come on all of you, sing up; you know they can't stop you from singing, even Mr. Lang can't do that—and he can do almost everything. Do you know the latest? Well, he is trying to stop those four little crabs in Sydney Harbour from having whippers." I venture to say that the community nights from 6WF would be very flat without 'Paul, The Tonic' to pay them up as he does. In the plays, too, Paul Daly is the finished artist, his voice is a perfect one for broadcasting and the other night I overheard my young daughter say to two of her girl friends listening with her, 'Ah, here's my star.' Now, Paul is a married man, I understand, so perhaps it is just as well that he is, for I fear if he were not with the host of admirers he has amongst listeners of the fair sex, he wouldn't long be single." Well, Mr. Editor, if you see fit to publish this little appreciation of our best broadcast artist you are quite at liberty to do so, for I am a believer in giving credit where it is due, and I consider that 'The Tonic,' as he is called in our home, is entitled to a big wad of that.—H.W.H., Mount Lawley."

5CK Tuned In on an "Airzone" Cub.

Mr. L. H. Gibson of Victoria Park writes in stating that he tuned in Crystal Brook on his little Airzone Cub, which uses only two tubes and a rectifier, and he thinks that such a performance speaks well for the little set and passes on the information so that other owners may try for this station, knowing that it is quite possible to tune it in on this little set.

Mr. Gibson states that the station came in at good speaker strength, but with a slight background of 6WF. He states that he only uses a small aerial fastened to the wall under his front verandah. Now if you have an outdoor aerial and at a trap, you will probably be able to get this station well on this make of set in the wintery months. It is, anyway, well worth trying, considering the results obtained with such a small aerial suspended with the roof as it was. Mr. Gibson gives the items heard during the hour he was listening to the station. There was also, he states, no fading from Crystal Brook and the station came through well from 7 to 9.30 p.m.

Are "A" Class Stations Unemployment Bureaus?

To the Editor.—With reference to the remarks made after the cable news re unemployment among musicians and artists in England, Middle Session 6WF 4/4/32, to the effect that A Class Stations have been criticised for employing local artists and asking the listening public "to bear with the shortcomings of these artists," might I ask if the A Class Stations are unemployment bureaus, or are they there to provide the best entertainment in return for listeners' fees. In the Questionnaire conducted in your paper and The West Australian, the public voted their preference for good "Canned Music" to that provided by mediocre artists, and as the public pay, so their preference should be considered. Why should listeners have to put up with their shortcomings? Let them keep to the concert platform, where one has the option of staying away if one so desires. In other walks of life, if we are not up to standard in our jobs we lose them, so why should under standard artists receive special consideration and the listening public be asked "to bear with them."—LICENCE 2090.

Old-Established Musical Body Appreciates the Paper.

To the Editor.—The Fremantle Orchestral Society, founded in 1887, is most anxious that your valuable and most appreciated magazine should be made our official organ and at a meeting of the committee held last month I was asked to write asking you to extend this favour to us.—Signed, D. HEINRICH, Secretary.

With pleasure we complied with the Society's request and notes of the Society's activities will in future be published in the Musical Section of this paper.—Editor.

Advertisers will appreciate the mention of this Paper in your Enquiries.

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Here's the drink with the
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IT'S A WEST AUSTRALIAN PRODUCT.

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They cause unemployment and
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Invaluable for Garage and Home.
Cleans and Polishes your Car, Piano,
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Those who have not yet tried—

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Have get to enjoy W.A.'s Choiceest
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Be SURE You GET**HAMS and BACON****"SOVEREIGN"**

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SOVEREIGN BRAND

PICKLES, SAUCES and
VINEGAR.

Products of The West, and
Proved on Test the Best.

A Trial will Convince You.

A Guide to Radio Buyers.

Bairds Radio Department for "Inplex" Batteries.—The Bairds Co. are fortunate in having the distributing rights of the famous Dutch "Inplex" radio batteries, now being made in Australia by Herberholms Ltd. These special process batteries are used in every part of the world, and Herberholms Ltd., Utrecht, Holland, are regarded as the leading battery manufacturers in the Old World. Their batteries contain none of the corrosive and injurious acids used by other makes, and their shelf-consequently is more than twice that of those using acids. Their recuperative qualities enable heavy loads to be taken from comparatively small batteries, and the writer had two 50 volt Dutch "Inplex" batteries in constant use on a three valve short wave receiver for 15 months, and even when discharged there were no bad cells in the batteries. They were only the ordinary light duty type and considering that they were used with a set using pretty heavy valves, it speaks volumes for the quality of "Inplex" batteries. Now these famous batteries are again available here from Bairds Radio Department, which by the way is well stocked with all the latest in radio valves, speakers, components for short wave receivers, kits for builders, and many of the leading makes of receivers that you will see at the Exhibition. You can see them there, but as the Exhibition is a silent one, you can hear them in your home by arrangement with Bairds Radio Department.

W.A. Radio Service.—Visitors to the Exhibition tomorrow night are specially invited to see the "Jupiter Five" on Stand 15. This remarkable receiver is designed for both broadcast and short wave reception without the necessity of changing the coils. A special wave change device is fitted to enable the set to receive world short wave stations in Eastern States and local broadcast stations by simply turning a knob. This receiver is battery operated and is the ideal set for the country listener. Many people have seen the W.A. Radio Service van round Perth and it is also becoming well known in many country centres. Full stocks of batteries, valves and components are carried and it is the only travelling radio store in the West. The city address is 21 Barrack Street, Perth. "Service Like a Plumb" is their motto and if your set develops trouble that is how they will fix it. They demonstrate in your home also all the leading makes of sets to be seen at the Exhibition. Sets and service too, for sets supplied by them will be regularly serviced without charge for 12 months.

Radio Bargains for Country People.—Morris Brothers have a number of fine battery model receivers that have been taken in part payment for A.C. sets that are offered at greatly reduced rates, and for people in the country, here are chances of good receivers at bargain prices. For pianos, records, gramophone records and repairs and musical instruments of all kinds, Morris Bros. will serve you well. Full particulars of the sets mentioned will be supplied to any country listener interested on request.

"Radiola" and "Solana" Radios.—You will see them too as you enter the Exhibition, on your right hand side as you go to Stand No. 12. Radiola Ltd., of Murray Street, Perth, who are distributors here for these fine sets. Don't miss Stand 12, for there you will see the 1932 Radiola, and believe me it's a set worth seeing and hearing in your home. They'll demonstrate it to you, so make an appointment while at the Exhibition.

On Stand 19 you will see a fine display by Mr. A. D. Crisp, radio and electrical specialist, well known at the Post for his up-to-date, well stocked radio stores. Sets and accessories and "The New 1932 Radiola," for which he is the Fremantle distributor, will be displayed at Stand 19.

A Music House of High Repute.—G. P. Kearns' Radio and Music House at the corner of King and Hay Streets, Perth, is where you can be perfectly sure of satisfaction, for it is through considerable attention to every detail that this house has such a following in the musical world. Whether you are seeking a player, a gram, rolls, records, or any of the leading makes of radio receivers, you will find Mr. George Kearns happy and willing to assist you in your choice, and his strong point is satisfaction to every client. Remember, he will be pleased to demonstrate any of the leading makes of sets in your home, just when it suits you.

Building Your Own Superhet.—The Superheterodyne will undoubtedly be the set of sets this year, and although there are a number on the market here, there are many who would, if it were not too complicated, build their own. Now, to make this possible the Strandberg Carlson people have put on the market a really beautiful kit, with all the coils, necessary condensers and components that make their sets difficult for the amateur to make up. These are obtainable from Magarees Ltd. for £9/10/-, and with this kit—which contains diagrams and full working instructions—anyone with only a slight knowledge of radio construction can make up this Super without difficulty. It is the only kit of its kind available here, and for those desiring to have their own superhet, but who cannot afford to purchase the commercially-made models, this kit is recommended. If you want the latest in sets and the super-distance getter, well, it must be a superheterodyne receiver, and this kit must create a ready demand amongst those who wish to build their own.

Pidgeon's Radio Exchange.—You have probably all noticed that Arthur Pidgeon, "The Bird for Radio," is now installed in new centrally-situated premises in Hay Street, and will be pleased to see old customers and new ones too, for anything in radio from good used parts to any of the best known makes of radio receivers on the market here.

Those Annoying Maada Valves.—Atkins W.A. Ltd., Hay Street, Perth, are W.A. distributors for these fine new British valves. R.C.A. Radiotrons, too, are another of their lines.

Exide Batteries.—See the range of Exide Radio batteries on M. J. Bateman's stand at the Exhibition, where the famous S.V.C. 1932 model radios are being shown.

Carrick's Radio Store.—Right in the centre of the city in Brecon's Arcade is where you'll find this little radio magazine of great values. All the leading makes of sets are stocked and a great range in new and used radio components, valves, batteries, speakers, short wave sets, are always to be found there. Carrick's are noted for value, so if you are after value go to Carrick's.

Walton 1932 Models at Craig's, William Street.—Henry Craig & Co., the pioneer radio firm of Perth, have put around us the latest models of Walton Radio Receivers. In the Eastern States these new receivers have proved

Advertisers will appreciate the insertion of this Paper in your Enquiries.

extremely popular, for they are high quality sets, wonderful performers, and it is the prices that have made them so popular. They equal many sets 20 per cent higher in price, and owing to this fact, the advertising of these sets is restricted, but the value is in the sets and once you have heard them and seen them you will realize that the margin of profit on sets of such high standard as the prices they are offered to the public leave the distributors a very small margin. The sets themselves in point of workmanship, quality components, and performance are their best advertisement. See them and hear them at Craig's, William street, before you buy.

Waterman & Son, William street, well known to home turnishers as designers and manufacturers of high class furniture, have opened a radio department, and are featuring many of the leading sets that are to be seen at the Radio Exhibition. When furnishing your home for you they will install a radio, now almost an essential in the modern home, and they will do it for you on easy terms. That will appeal to many, for easy weekly payments are a convenient way to get the blessing of radio for you and your family.

Valve Replacements.—Phonographs carry full stocks of the famous R.C.A. Radiotrons valves, so when you need replacements for your receiver, you'll find Phonographs have the valve you want.

The Latest in Electric Irons.

CORDLESS IRON PATENTED.

The Radio Radio Co. of America have just put on the market their an improved electric iron, which is cordless. Most housewives know how the cord that connects their iron to the power socket gets in the way when

ironing. This has been overcome in the latest electric iron, which has no cord to get in the way or require replacement. A special stand is supplied with the new iron which is connected to the power socket. When the iron is placed on the stand in contact position, it heats up rapidly and is almost instantly ready for use. Each time the iron is placed on the stand it immediately draws heat as required, while the housewife is busy with the next article to iron. The iron cannot overheat, for when on the stand it heats up and at a certain temperature automatically, through the use of a thermostat in the iron, cuts off the current and when it cools below the proper heat again automatically heats up. It is claimed for the new iron that with its use there is no waste of current, no danger of electrocution through a damaged cord, no scorching and no danger of fire through the iron becoming red hot and igniting surrounding objects on the table, and a great advantage is its convenience in not having to trail the cord.

Recital by the Guildford Juvenile Choir.

In the Perth Town Hall on Tuesday, May 2, at 8 p.m., the Guildford Juvenile Choir, of 30 children, under the conductorship of Mr. C. L. Jenkins, will give a recital of Choral music, including anthems and two-part songs by classical and modern composers, negro spirituals, and folk songs. The assisting artists will be Margaret Sharp (soprano), Phyllis Browning-Turner (contralto), Doris Pearce (pianist), Theo Murgison (tenor), and Charles L. Jenkins (baritone). The concert is to be given under the patronage of the Lord Mayor and Lady Mayoress, and the Chairman of the University Music Board, Professor A. D. Ross. The proceeds are to be devoted to the Children's Hospital.

WHEN BUYING A SET

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All the best sets and all the most important radio undertakings are equipped with R.C.A. Radiotrons. Be sure the set you purchase is equipped the same way. For replacements, too, you will get better reception and longer life from R.C.A. Radiotrons.

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Records For Your Phono-Radio?

and

Phono-Radio Notes.

BY CLEUDE



Maori Music.

WHEN you have passed away and found of such has obliterated distinctions, these authentic records of Maori Music will be a faithful and true witness of the Maori race and its traditions. of its rapidly for song and harmony. Nature has gifted these people with beautiful voices—voices possessing certain characteristics that produce a marvellous liquid quality of tone. To this has been added an exceptional ear for music and an adaptable and receptive nature. In the Maori melodies that for generations past have charmed visitors, it is not difficult to trace the influence of the first missionaries. There is a remarkable similarity of some of their lyrics, and in these it is fascinating to observe the variations of harmony and form. They have also developed simple tunes that charm the ear and haunt the memory.

Around the shores of Lake Rotomua, and the other great lakes of the thermal districts dwell the Arawas—probably the greatest of the Maori Tribes. For generations past, a Hapu or group of families of the Arawas, known as the Ngati Whakaue, who live in the little village of Ohinemutu, near Rotomua, have specially developed their young people in the knowledge and singing of Maori songs. Today, there is a band of some thirty, specially selected for the quality of their voices, known as The Rotomua Maori Choir. It can be asserted with confidence that nowhere in the world today could be found a choir capable of more perfect intonation.

These recordings which Columbia made at Rotomua may be regarded as authoritative interpretations of the most typical of the native melodies sung by the most beautiful Maori voices in the world today.

ROTORUA MAORI CHOIR.

10 inch, special label, 4/- each.

D051 E Para Ra (Warriors' Departure) (Hau, Sir Aprama Ngata, L.L.B.)

Haua Tona (War Song) (Hohen and Horoe). With piano accompaniment. Rotobiko Hinamua and Rotomua Maori Choir.

D052 Karu Karu (A Fishing Chanty) (Rt. Rev. P. A. Bennett)

(4) Te Ope Tootahi (Parakee Tunesong), (5) I Rauga O Ngu Puka (Rt. Hon. Sir Aprama Ngata, L.L.B.) (Marching Song).

D053 Haua Ra Te Waka (Canna Poi Song)

Haua Haua Ra E Hine (Hinomua Poi Song) (Parakee Tunesong).

D054 Puhakere (Maori Love Ditty)

Te Taniwha (Maori Love Ditty)

D057 Titi-Tona (Musical Coma)

E Hara Te Waka (Love Never Dies)

D058 (a) Haei Haei; (b) Haua Ata Ra (Maori Love Ditties)

(a) Haki Haki; (b) E Hine E Haki Mai; (c) Teia Mai Te Waka (Maori Love Ditties).

D059 Mateangi (I Grieve for You).

E Hara Naf (I Long for You)

D060 Mahurikuri (Moroi Girl)

Moe Mai E Hine (Maori Lullaby)

There is also a remarkably fine duet by Maori singers: "E Parere Ra," recorded by Parikahone, and this is one I would strongly recommend you to get. Both Morris Brothers and Mungroves have it in stock. All the Rotomua Maori Choir records mentioned and others are carried by Phonographs Ltd. Another particularly fine Columbia recording is an organ solo by Reginald Power, "By the Blue Hawaiian Waters." If you are fond of male voice concerted items, get Columbia's recording of "Carry me Back to Old Virginia" by James Bland (D4215). "Lo Regal a very fascinating Negro spiritual recording is "Climb up Ye Children Climb" and on the reverse "Ella Lee." There is some particularly fine harjo work in this record. In Columbia I heard two beautiful records by the Choir and Choristers of St. Andrew's Cathedral, Sydney—D0X201, "As Pauls the Harl" and "Oh for a Closer Walk with God" (2/-) and D0X202 (4/-) "Lift Thine Eyes" and "Oh Lovely Peace."

Pape Roman is a new tenor who makes his debut this month on Columbia records. His voice is of remarkably beautiful and rich quality. In addition to that he sings with great refinement, perfect control, and can take the faintest of pianissimo with admirable effect. Roman's songs are "Ay, Ay, Ay" and Toselli's "Serenade." Columbia D0341.

Now here are some others that we heard at Mungroves that can be recommended. It is the hard task to select good records, and unless you are prepared to spend a lot of time you will miss many that should be in your collection, and so the following are given. You can get the full opera album from 2/12/6 down to really good records costing only 2/-, the new Swiss records.

Brunswick.

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Chanson Bohème, Carmen. Song by Sigrid Oergin

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Ta Saps (You Know). George Metaxa, tenor.
Columbia, 2838 (4/-)—Little Gray Church on the Hill,
and Joe Keegan's On. Raymond Newell and chorus.

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Regal, 21210 (2/6)—Life is Just a Bowl of Cherries, and
This is the Mison. Fox trot and vocal chorus by Spri-
ngy Kyles Orch.
Brunswick, 4184 (4/-)—I Love You So, and Lazy Louisiana
Mama. Waltz and vocal chorus by Regent Club Orch.
Summit, 129 (2/-)—Ho Hum. Fox trot by Henry Large's
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chorus by Aaron Steef's Orch.

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Regal, 2888 (2/6)—March of the Plumed Helmets, and
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Parlophone, 2418 (4/-)—Londonderry Air. Frank West-
field's Orchestra. By the Waters of Minnetonka.
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Roundelay, Op. 11, No. 2 (Toscani). Cello with piano
by J. Nilan.
Brunswick, 4123 (4/-)—Came I Feel Low Down. Rhythmic
tune violin solo by D. Robinson. To be Forgotten.
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H.M.V., B2667 (4/-)—Hungarian Rhapsody No. 3 (Liszt)
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With home-made gram-radios there is sometimes a
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is itself heard when a record is being played, especially on
the higher notes. This noise emanates from the pick-up
as it traverses the record grooves. The trouble can be
remedied very easily. It is merely a matter of making
the lid of the cabinet soundproof. Lining the edge of
the lid with felt will overcome the trouble.

Use Needles Only Once.

Use needles only once if you value your records. They
are infinitely cheaper than records, and perhaps you will
remember seeing in this paper some time ago how a
needle wears after running the 200 parts round the grooves
of a single record. An illustration of this was shown
as it appeared under a microscope. Stick to the maker's
instructions and use them only once.

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Picking Pick-Ups.

If you are looking for a really good pick-up at a reasonable price I really think you should pay a visit to Gordon & Co. and hear the Whiting. It is a beautifully balanced little instrument and capable of great volume and the price is certainly attractive. Bosses too have a splendid pick-up in the B.T.H. all bakelite model, and I have seen them marked well down in price as Fair Specials. Bosses Radio Department is well worth watching for radio bargains and this is one of them.

Let the Needle Govern Volume.

If you want fairly subdued music from your phonoradio, it is infinitely better to use a soft needle than a hard needle with the variable resistance controlling volume right in. The volume control should not be more than about half in for best results. I have found that to have by you a tin of soft, medium and hard needles gives better results than using a hard needle and choking down the volume with the control. Try it and you will find you get better music.

THAT RECORD SCRATCH WITH PHONO-RADIOS

THE CAUSE AND SUGGESTIONS TO REDUCE IT.

A question often asked is: "How can I cut out record scratch?"

Now, this is a matter that requires some thought, because the scratch that we all hear is not composed of just one frequency. If it were, then there would be no difficulty in erasing a filter to eliminate this frequency—over the particular frequency had been determined.

CUTTING THE "HIGH STUFF."

Unfortunately it is not a question of a single frequency, but a number, and in consequence if we cut out all the scratch we must include the high notes. And, after all, is the amount of scratch we get so very terrible? Scratch is not worth worrying about unless it is over-emphasised, and this only occurs if the pick-up is a bit "punky" on the higher frequencies.

A pick-up of this type is now difficult to deal with, because it is no easy matter to connect a resistance across its terminals nor to cut out the scratch by flattening the peak.

It is not possible to give any definite value, because obviously this must depend upon the characteristics of the pick-up itself.

A SUITABLE RESISTANCE.

Neither is it desirable to eliminate all of the surface noise. The resistance value should be adjusted until the degree of scratch is decreased to an amount when it is no longer unpleasant. A good value to try is 100,000 ohms, and if this does not do the trick, then 50,000 ohms probably will.

The point is sometimes dealt with by the makers, who mention suitable values on their instruction leaflet.

This scratch trouble may become rather prominent when the output valve is a pentode, because a pentode tends to over-amplify the high notes unless some form of tone control is used.

But there is no reason why the tone control should not serve both for radio and gramophone, provided it is made so varied that it must be variable.

You see, one of the advantages of a pentode is that it balances or any loss of high notes due to sharply tuned (I.F.) circuits. In many cases it is absolutely essential to cut off side-boards pretty badly in order to obtain the necessary degree of selectivity.

Now when we employ a pentode we usually connect a resistance and condenser in series across the output transformer or choke. When the values are suitably chosen the correct tone balance is obtained. This brings us back to question of scratch.

VARIABLE CONTROL.

When the tone control is adjusted for radio it is probable that it will still allow the scratch to come through fairly prominently, and so to overcome this difficulty the resistance which is in series with the condenser across the pentode choke or transformer can be made variable, say, from zero to 10,000 ohms maximum.

Records of VK3ME Broadcasts Made in U.S.A.

Every broadcast sent out from Station VK3ME, Melbourne, over a period of 16 weeks was received on a Scott All Wave receiver at Chicago with an ordinary antenna. In every instance the reception was perfectly distinct and came in with far more volume than could be used in a large-sized living room.

A disc record of every broadcast was made by Mr. Scott and half of these records were sent to the radio station at Melbourne, whose officials were amazed at the clarity with which their broadcast was received at a point 9500 miles away. The remaining records were retained by the E. H. Scott Radio Laboratories Inc., where they are played for visitors.

Advertisers will appreciate the mention of this Paper in your Enquiries.

POTTED PROGRAMMES FOR AUSTRALIA.

B.B.C. PROGRAMMES TO BE REPRODUCED HERE BY THE BLATTNERPHONE METHOD.

Months ago in this paper we commented on the possibility of programmes from America and Great Britain being recorded and circulated to broadcasting stations throughout the world, in such the same manner as cinematograph films are circulated. Little we knew how close this development was when the article was written.

A company has been formed in England, The Colonial Radio Programmes Ltd., whose business will be to supply programmes of the leading English stations, recorded by the Blattnerphone method, to broadcasting stations throughout the world. Mr. Paxton, the Postmaster General, when introducing his first Broadcasting Bill, said that it was proposed to use the Blattnerphone recordings of British and Continental programmes for the Australian A Class Stations. The items of a whole programme is electrically recorded by the Blattnerphone, in much the same way as records are made, except that instead of a disc (or record) groove is made in a narrow steel ribbon, which winds on to a reel like a cinema film. In America many stations are at present using these recorded programmes, and listeners cannot detect the difference between the original programmes and the recorded one.

The reels can be forwarded by post and circulate throughout Australia, and these supplemented with local programmes should make broadcasting under the Government's control more attractive than has ever been possible before. It practically solves the programme problem.

Already New Zealand is using recorded programmes from America, and it should not be long before the Blattnerphone recorded programmes of British Broadcasting Company programmes are heard in Australia, as well as programmes from some of the leading Continental stations.

What a field this new invention opens up and what wonderful prospects it holds for better broadcasts for Australia and the Dominions. It is stated that the programmes transcribed by Colonial Programmes Ltd. will comprise radio plays, revues, vaudeville and special musical items, broadcasts of recitals by world famous artists, national events, etc., that it is impossible to obtain on ordinary gramophone records.

In addition to the reel recordings special disc records will be made no larger in size than an ordinary record, but which will be capable of providing unbroken music for over half an hour. Larger records will be made to supply a full programme. The advantages of this new system of supplying programmes are that the cost of each programme will be shared among the stations using it and thus were considerably in programme costs. The listener will be assured of only the best of items and well-rehearsed and well-produced plays and revues, talks by world famous men, etc. From the stations' point of view, costly and time expenses can be saved, and the programmes can be put over the air at any time of the day or night, and repeat broadcasts can be made without extra expense. For this State particularly the use of these recorded programmes will literally make radio boom in the West.

U.S.A. Senate and Broadcasting.

The senators of the American Senate have given permission for the broadcasting of all Senate and Congress meetings.

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PAUL GRAENER.

MODERN GERMAN COMPOSER.

Here Paul Graener is 60 years of age, and occupies the honored position of director of the Stern Conservatorium in Berlin. He was in former times active in London, as conductor at the Haymarket Theatre and as teacher at the Royal Academy of Music. He was afterwards director of the Selsburg Music-schools, from which post he proceeded to the Leipzig Conservatorium in succession to Max Reger.

He recently aroused great interest in European musical circles by the production, at the Berlin Municipal Opera House, of his new opera entitled "Friedemann Bach." Friedemann Bach was the eldest, and perhaps most accomplished, son of the immortal John Sebastian Bach and the story of this opera is derived from the poetic and sentimental life of Friedemann, written by Bruchvogel.

The local colour of the Bach Period has been introduced in the opera by the composer with masterly effect. The notes BACH (which are explained in to-day's leading article "Musical Humour"), shine through the complicated texture of the music, and give their own colour to the atmosphere. Two song melodies, which are attributed to both J. S. and Friedemann Bach, are put to important thematic use, and the manner in which they are developed and varied by Graener is certainly worthy of a master. There is also some pretty dance music, in the style of the Bach suites, that gives local colour. In this delightful opera Graener has shown his powers as a master of melody, form, tonality and orchestral effect without any taint of the ultra-modern. In fact, if any criticism is to be levelled at the score at all, it is only that the composer has erred on the side of the lyric and the beautiful, at the expense of the dramatic.

Advertisers will appreciate the mention of this Paper in your Enquiries.

MUSICAL HISTORY IN A MUSEUM.

HAYDN'S CLAVICHORD.

An exhibition of antique musical instruments was recently opened at the London Museum, St. James'.

The celebration of Haydn's bi-centenary this year has caused unusual interest to be taken in one of the exhibits, a clavichord made for him in 1794, and on which he composed most of his music. Perhaps it would be more correct to say "on which he tried over his new music," for genuine composers do very little work at their instrument, but compose music in the same manner as one would write a letter. This clavichord has the colour of the keys reversed—the sharp keys or "sharps" being white and the long keys black—like other keyboard instruments of this and earlier times.

Other instruments in the collection include the earliest form of pianoforte made by Broadwood (established 1726), and an early harpsichord, loaned for the occasion by Princess Alice.

Cruel bone Roman flutes of the fourth or fifth century, grotesque bird whistles of the fifteenth century, and Jews' harps of the sixteenth century are placed side by side with exquisitely carved violins, violas da gamba, guitars, and many other picturesque models of stringed instruments.

Handel manuscripts and first editions of his works are exhibited, including part of his "Concerto Grosso," copied out by his pupil Beethoven, his "Jupiter in Argos," which has never been performed, and the earliest known printed copy of the Messiah. Englishmen are proud of these treasures, for they almost claim Handel as one of their own.

A book of music which belonged to Lady Hamilton, and bears her signature, and one also which belonged to Nelson are shown. Nearly is an old English guitar made for George III, and a violin made and carved by the painter, George Romney, for himself. One of the most fragile exhibits is a porcelain flute of Dresden china lent by the King.

Practically every one of the old musical instruments exhibited were made by British master craftsmen.

CLUB CORNER.

The Five Arts Club announces the performance of the musical comedy entitled "September" on April 23, 27 and 30. Other productions in the near future will be a mystery play, "The Stratford Case," and Oscar Wilde's comedy, "The Importance of being Earnest."

The extra season being given by the Repertory Club is the hilarious farce, "Hax, Hax, Black Sheep" (by Ian Hay and P. O. Wodehouse), on April 14, 15 and 16. Miss Joan Goad, as Chickie Bluff, and Mr. Norman Wisgrove, as the young sinner, Hugo Baxter, are the principals in a large cast.

Brilliant Australian Composer-Pianist Returning.

Roy Agnew, the brilliant Australian pianist and composer, is adding fresh laurels to his already heavily-laden crown. In London he is the centre of attraction in the musical world. The "Evening News," London, says—"Mr. Agnew is regarded as the most considerable composer Australia has yet produced."

THE FREMANTLE ORCHESTRAL SOCIETY.

As the "Wireless News and Musical World" is the official organ of most of the leading musical societies of Perth and suburbs, it is only appropriate that we should be favoured with a request from the Fremantle Orchestral Society that our paper should become the official organ of that society.

This illustrious society is the oldest of our metropolitan symphony orchestras, being founded in 1887. It added to its long and excellent record of fine performances with its programme last Wednesday evening in connection with the Hackett Hall celebrations.

On May 12 the first public concert for the 1932 season will be given, the programme for which will consist largely of the music of Haydn, in recognition of the bi-centenary of the birth of this great composer. Even of the best known of his symphonies, the "London" and the "Clock," will be performed, in addition to the famous "Emperor" quartette and arrangements from the creation, with orchestral accompaniment.

"FOLK-SONG STORIES."

The "Standard Book of Traditional Songs and Tunes for Little Folk," by Mrs. Murray MacLain, is a charming collection of old folk-songs, simply arranged and with historical notes. Musicians and students of all stages cannot fail to be interested in the quaint stories and customs associated with our nursery songs.

Did you know that "Three Blind Mice" is over 300 years old; that Old King Cole's daughter was a musician; that the tune "For he's a jolly good fellow" was originally a French one, probably written by a French soldier about Marlborough after the battle of Malplaquet? These are a few of the facts with which people generally are unacquainted, although the songs have been sung for hundreds of years. The fascinating stories about folk-tunes are endless, for many of the tunes and stories are found in different forms all over the world, and have their origin in old forgotten rites and customs.

"MUSICAL ADS."

The musical festival in an English town is usually the occasion for the whole countryside to be alive with music. At such periods of musical activity advertisements such as the following have sought to catch the public mind in the right mood:

- Our nutless kettles sing a good song.
- Our pocket knives are the sharpest made.
- Our floor coverings will improve your house or flat.
- Our paperhangings harmonise beautifully.
- Our family scales are A minor but useful appliance.
- Our plate powder is Gaddard's own composition.
- Our pitch forks will give you the right pitch, like any tuning fork.
- Our mowing machines are unequalled for Chopin.
- Our bonnets may be had with or without a Handel.
- Our floor polish is a fine Stalder.
- Our blind, picture and stach chords are treble lines which householders should note.
- Our leather boots shake up well in the morning.
- Our ladders, like exercises, lead you safely step by step.
- Our dinner gongs are a fine Creation, and make a din, but not by Haydn.
- Our staff have no cotchets, their technique is excellent, and their performance is in good time.

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TEACHER OF SINGING AND VOICE PRODUCTION.
will commence tuition at 31 Rawson Street, West Perth, on February 17th.
Prospectus on application after February 15th.

NEWS AND NOTES.

The many friends of Miss Veinola Laha, Mus. Bac., are pleased to hear of her brilliant success at the Melbourne University Conservatorium, and of her return to the West this week. Miss Laha was formerly of Bridgetown, and obtained a University Music Exhibition at the public examinations in 1925. On Saturday, 16th inst., she will, amongst other music exhibitions, contribute a pianoforte solo at the concert in the Hackett Hall.

The Guildford Juvenile Choir, under Mr. C. L. Jenkins, will give a recital in the Perth Town Hall on Tuesday, May 2. The assisting artists will be Miss Margaret Sharp, Miss Phyllis Browning-Turner, Miss Doris Fenner and Theo. Menges.

The competitions conducted by the Elizabethan Teachers' Association, will be held this year from April 22 to May 2, in the Assembly Hall, Pier-street.

A vocal recital will be given on Thursday, April 21, by Miss Gertrude Hutton, who is making her first appearance on the Perth concert platform. The programme contains a great variety of the best vocal writings of English, French and Italian schools. Assisting artists will be Miss Nora Coultard and Mr. Harry Vowles.

A new orchestra has been formed in London with the title of London Senior Orchestra. One of the objects of this fine body of musicians is to lend its services to young solo performers, so that they may gain experience of playing classic concertos with an orchestra. At a recent concert they performed pianoforte concertos by Bach, Mozart, and Cesar Franck.

When the Gewandhaus Concerts of Leipzig were lately threatened by lack of support, this celebrated institution was promptly saved by a response of the public in spite of hard times.

STAGE NOTES.

Margery Hicklin, a leading star in J. C. Williamson's production of "Ellie Sweet," at the Melbourne Theatre Royal, gives the following commentary on Noel Coward (author of "Billie Bluebell"), whom she has met in England: "He is considered the outstanding genius of the English stage today. As actor, author, composer and producer, he is a unique combination that represents the best word in versatility. To watch him at rehearsal of one of his productions is an amazing experience. There is not a detail of stage production with which he is not thoroughly conversant. He knows what he wants, and he gets it. He never allows anything."

Margaret Howlings, the youthful star of "The Barretts of Wimpole Street," at the King's Theatre, Melbourne, is strongly of the opinion that a knowledge of acting is not the only requirement of an actress. She has equipped herself in other directions, which have helped her considerably in making her way from small beginnings in her stage career to star roles. For example, she learned music, dancing, fencing, singing, and languages. These studies entailed considerable hard work, frequently to the extent of fifteen hours a day. Her—Miss Howlings points out—the old idea that there is no way and no success on the stage has long ago been disproved.

In a recent article on Dame Edith Thorndike, the world-famous English actress, coming soon to Australia with her complete company, Hanson Swaffie, the noted London critic, mentioned that the great actress's high position was the result of struggling against adversity, fighting, learning, enduring through it all. "And now," he said, "though many critics hail her as the greatest English tragedienne since Sarah Siddons, few people remember that it is only ten or eleven years ago that she earned only thirty shillings a week at the Old Vic."

BARREL-ORGANS.

Professor Dent has been writing, in the British Monthly Musical Record, the interesting story of the old mechanical barrel-organs which were operated by a clockwork mechanism. Bayle, Mozart, and other composers of their period, wrote music specially for them, and some of the music is of no more value. Professor Dent gives the following account of a performance on one of these barrel-organs which he heard in Paris in 1914.

"At the end of the concert the Director of the Museum announced that he had a little surprise for us. An attendant brought in a large clock which had belonged to Queen Marie Antoinette; it was wound up and set going, and as the organ concealed in it played one or two of the ballets from Gluck's "Alceste." I confess to having been taken very much by surprise, for when the director told us that the clock played Marie Antoinette's favourite tunes, I had in my ignorance expected to hear the tones of a Swiss musical box, in which the sounds are produced by a steel comb. I ought to have known that the steel comb was not invented until early in the following century. The little organ made a strange and ghostly sound, and I well remember the effect of its sudden stoppage, for it sounded like the performance of a shy, small child made to play with grace-cups, playing timidly and without expression, and stopping off the music as soon as the last note had been perfunctorily struck."

The little musical public is not discontent with many really first-class operatic performances; but recently they were afforded a treat by the Amosvian Wagner Society's production of "Luric Erlanuen" with a star cast, headed by Chalzyne, the famous Russian bass.

The Berlin Philharmonic Orchestra, on its way home from London and Scotland, called at the Hague and gave a fine Beethoven programme.

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60 volt light duty 15/-
48 volt light duty 11/4
42 volt flat torch 1/-
No. 8 round torch 8d.

Complete list showing prices of all types sent post free on request.

All prices include Sales Tax.