

CARLYLE & COMPANY

Phones: B 6663, B 2017.

Telegrams: "Lylecar, Perth."

STAND N^o 2 RADIO-ELECTRICAL EXHIBITION

WHOLESALE DISTRIBUTORS OF:

Diamond Dry Batteries
Amplion Loud Speakers
Mullard Valves
A.W.A. Components
T.C.C. Condensers
Emmco Components
Univox Receivers
Ben-Hur Receivers
A.G.N. Components
Radiokes Components
Marquis Sockets

ETC., ETC.

Lewcos Coils and Kits
Lewcos Wires
Liverpool Cables
Weston Instruments
Chanex Condensers
Chancery Resistances
Carboncels
Dulytic Electrolytics
Westinghouse Rectifiers
Alpha Resistances
Chanex Resistances

ETC., ETC.

CARLYLE Can Execute the Whole Order Always

915 HAY STREET ————— PERTH
278 HANNAN STREET ————— KALGOORLIE

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:—

MADE FROM A FAMOUS FRENCH RECIPE.

FACTORY: 288 OXFORD STREET, LEEDERVILLE.

EVCO
TOMATO SAUCE.

alternative broadcast fare for a number of listeners. Already reports are to hand recording excellent reception from 5CK and 2CO. 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 flair 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 hun-

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 dreds of listeners and considerable commendation in the press (17th March) I feel I would like to add to Mrs. New's reminiscence of old days. In 1876 I heard Uncle Tom give his life story at Spurgeons 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 Pendleton." And yet another letter has been received from Mr. Robert Hull of Nungarin: "Seeing in Thursday's paper, a letter from Mrs. New, whose husband had shaken hands with Uncle Tom; I also had that privilege in the year 1876 in the City Hall of Glasgow. Yours faithfully, R. Hull."

RADIO STARS AT THE EXHIBITION.

In connection with the Radio Exhibition at Temple 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 Stancliffe, soprano; David Lyle, tenor; Nora Coalstad, pianist; Eileen Hart, contralto; Paul Daly, entertainer; Lulu Potter, soprano; Harry Graham and Mrs. Dorothy Graham, entertainers; Keith Watts, 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 AM 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 inducement 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 Aborigines"	G. C. Benson	April 10	8.45 p.m.
"Modes of the Moment"	Mrs. Dorothy Graham	April 11	11.30 a.m.
"Health"	Dr. E. M. Stang	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 Rees	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"	Russell 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 6d. 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 Tyrer to give a violin and pianoforte 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 11th, was a brilliant example of technique and musicianship. Miss Evans and Mr. Tyrer 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 at 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 Coalstad, a brilliant West Australian pianist who displays excellent technique, and Leo Chase, 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 13th—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 and the University Music Exhibitioners.

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 Exhibitioners.

RADIO COMPONENTS

Tremendously Reduced!



27/6 Headphones,
15/11

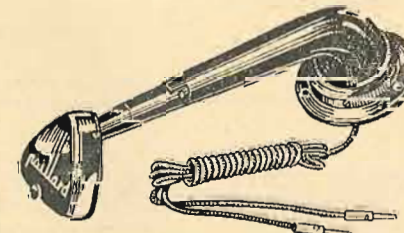
(As illustrated) Ediswan Headphones, 4000 ohms. British Phones. Wonderfully well constructed. Usually 27/6. Boans Price, 15/11.

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, "Marquis," UX or UY base. Usually 1/6. Boans Price, 10d. each.

16/6 45-Volt
H.T. Batteries,
12/11

Batteries, full double capacity, tested and proved. 45 volt units, type "Radiolene." Usually 16/6. Boans Price, 12/11 each.



75/- "Paillard" 39/11
Pick-Ups —

(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 Pentodes,
12/11

(As illustrated) Valves, the latest 247 Pentode, guaranteed in perfect order and fresh stocks. Usually 22/6. Boans Price, 12/11.

24/6 Trans- 18/9
formers —

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

Electrolytic Condensers, 8 mfd., 440 Volt Max., working D.C. Usually 9/6. Boans Price, 7/3.

BOANS

"PERTH'S GREATEST EMPORIUM."

SCOOP FOR 6WF.

When the news came to hand that the famous Phar 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 scoop 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 Phar Lap.

A SOUTH AUSTRALIAN REPORT.

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

c/o Fire Station, Berri, South Australia,

To 6ML, Perth, Friday, 1st April, 1932.
Musgroves 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 15 round fight between Arthur Deans 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 bore the listener, but just harmonises, and I should say that Ezywalkin Shoe 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' Concert Party in the Whizz 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 Whizz Bangs will help Diggers to recall some of the more pleasant memories of war days.

6ML AT THE EXHIBITION.

Commencing at 9.20 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 Westralian Military Band under the baton of Mr. Hugh Basham 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 30th. So successful have 6ML's Shakespearean productions been and so insistent the demand for more, that it has been decided to present Shakespeare's rollicking comedy, "Twelfth Night," from the Studio on April 30th. 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 humour 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 soon, readers, for the B class stations are out to please you.

ATHLETICS FOR WOMEN.

On Wednesday last Miss Jean Mills, late of 2BL and 2UW, gave a talk to the members of the 6ML Fox-Hoyts 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 elocutionary talent which is displayed by some of these children is really amazing. In fact, many of their 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 hilarity. 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:—

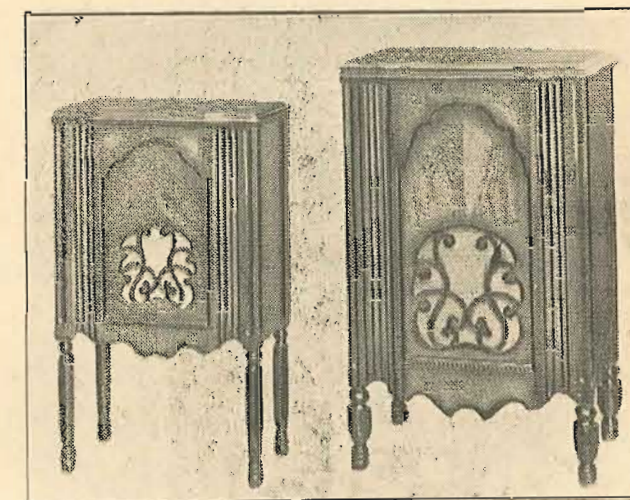
"Owing to your persistent and unending advertising of Persil, I decided to give it a trial. I have done so, and I must say I was more than satisfied—I was astonished—I tested it with a white suit worn by an ordinary boy of seven for a whole day—and to my surprise it came out looking quite new. You are at liberty to use this letter as a testimonial both for Persil 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 your set be housed in an A. & R. Cabinet.

ATKINSON & RICHARDSON,
RADIO CABINET MANUFACTURERS,

29 Vine Street, North Perth Phone B 3526.

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 SANE 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 "Astor" Radios in your home—Test the receiver where you are going to use 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

Featuring:



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

- 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.
- Gradual Tone Control.
- 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.

Leading Radio Houses Will Recommend and Supply.

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 sent 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 sent 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 3½ 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.

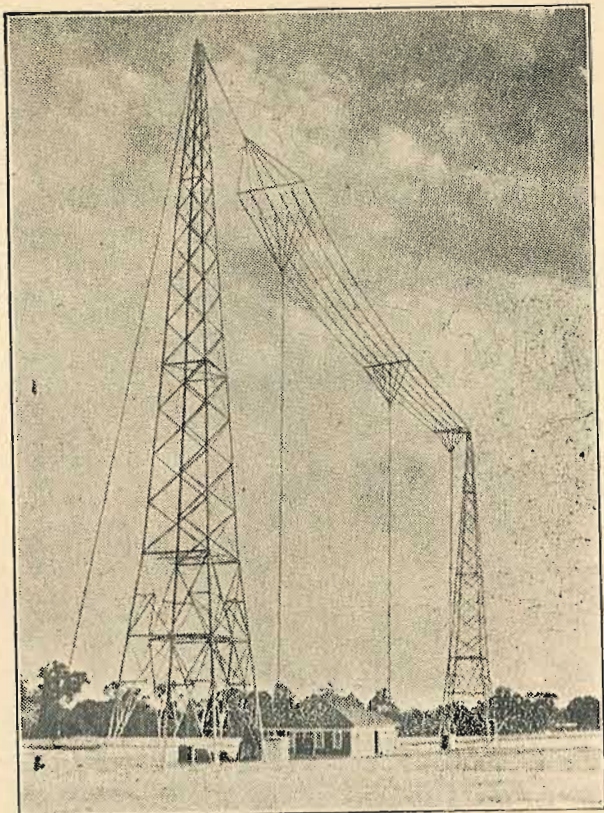
the copy will be rushed to you, under an official Government envelope from Diplomatic Mail. The copy will be signed by myself dedicating some phrases to you with my own hand-writing. All the nice "excerpts" will be the most reliable NRH friends Directory, the very foundation keystone of the smallest 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 2CO Corowa, the complete equipment for which was supplied by S.T.C. to 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

STC

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

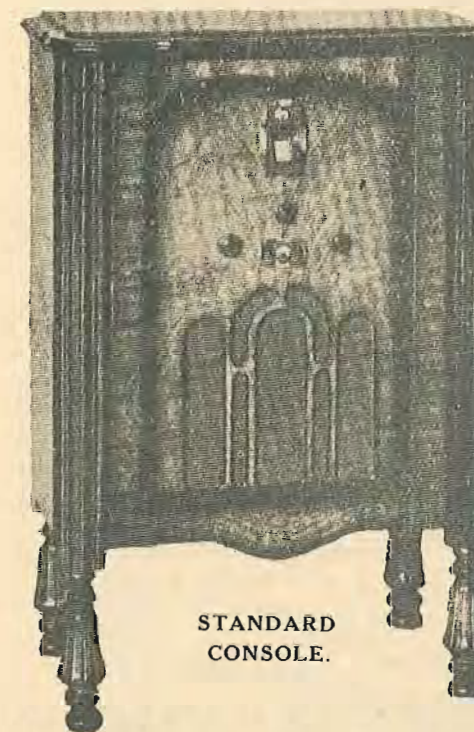
STAND 5

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 to 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 to be heard here. A peculiar feature on the envelope in which the literature 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 Lidylia Cespedes Arias Marin, the 17-year-old daughter of the owner. It gives the power of the station on this leaf as 7½ watts. It goes on to say "Miss Marin sings to thousands of listeners and talks many a once 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, Nebraska. 6.—Radio Broadcast International Test. 7.—The Bambu 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 Panama Canal. 13.—From the Chimborazo Land. 14.—The first newspaper clippings. 15.—How Uncle Sam 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 mascottes 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 NRH fa-

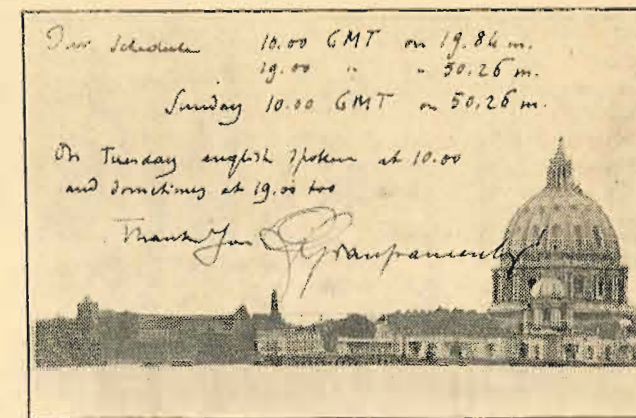
mous. 27.—From the South Venice Land. 28.—A one man broadcaster. 29.—The wonderful Publicity. 30.—Radio Telepathy and NRH. 31.—Heredia's Prize to NRH. 32.—Rebroadcasting Stations. 33.—The first report from France. 34.—The story of a Post Card. 35.—Little NRH as a "standard." 36.—On the summit of Poas Volcano. 37.—Air and Variations. 38.—From the Emerald Country. 39.—Aviator Fierro and NRH. 40.—The Lindy Dog of Horsham. 41.—Donnations and Gifts. 42.—First reports from New Zealand. 43.—First reports from Australia. 44.—How the M.O.P.A. worked. 45.—The Lady of the Blossom. 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 jnr. 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—Reichspostzentramt, 11-15 Schöneberger St., Berlin, Tempelhof.
Dutch Phones—Parkstaat, 29 S. Gravenhage, Holland.
PCJ—N. V. Philips Labs., Eindhoven, Holland.
French Phones—79 Boulevard Haussman, Paris, VIII France.
12RO—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 12721, Melbourne, Australia.
LSX and LSG—Transradio International, San Martin 329, Buenos Aires, Argentina.
VE9CL—Royal Alexandra Hotel, Winnipeg, Canada.
Indo-China Phones—Postale Boite 238, Saigon, Indo China.
Siamese Stations—Royal Post and Telegraph, Bangkok, Siam.
Javanese Phones and PMY—Government Post and Telegraph, Bandoeng, Java.
PK3AN—Sourabaya Radio Society, Balistrat 20, Sourabaya, Java.
F31CD—Radiophone, 106 Boulevard Chamer, Saigon, Indo China.
VK3UZ—Nilsens Broadcasting Service, 45 Bourke street, Melbourne, Australia.
Moscow Trade Union Station—Radio Station, Palace of Labour, Solianka 12, Moscow, U.S.S.R.
VK2ME and VLK—47 York street, Sydney, Australia.
Rabat—Directeur General Des Postes, Des Telegraphies et Des Telephones, Rabat, Maroc.
J1AA—Kemikawa-Cho, Chiba Ken, Japan.
LSN—Compania Internacional Radio, 143 Defensa, Buenos Ayres, Argentina.
HVJ—Pontificia Accademia Delle Scienze, Roma Castina, Pio IV Vatican.
FYA—Minister Des Postes, 103 Rue de Grenelle, Paris, France.
XGO—Chinese Radio Administration, Sassoon House, Shanghai, China.
EAQ—Apartads Postale de Correos 951, Madrid.
GSW—The British Broadcasting Co-op., Savoy Hills, London W.C.2.
3LR—Mr. R. B. Mair, 1 Kilrush street, Brighton S5, Victoria, Australia.
Nirom—N.I.R.O.M. Zuiderboordweg 17, Tandjong Priok, Batavia, D.E.I.
Bolas and Pt. Wayne—RCA Communications Inc., Pacific Division, 28 Geary street, San Francisco.
WOO, etc.—American Telephone and Telegraph Co., Long Lines Dept., 15 Dey street, New York.
W1XAZ—Westinghouse Radio Stations, Hotel Kimball, Springfield, U.S.A.
2ZX—Western Electric Co. (N.Z.) Ltd., G.P.O. Box 605, Wellington, New Zealand.
ZLW—Post and Telegraph Dept., Wellington, New Zealand.
W3XAL—National Broadcasting Co., 711 Fifth avenue, New York.
W9XF—National Broadcasting Co. Inc., Merchandise Mart, Chicago.
PK6KZ—Sec. Makassaansche Radio Vereeniging, c/o Nederlandsch Indische Gas Maatschappij, Macassar, Celebes, P.E.I.
W8XK—Westinghouse Radio Stations, Hotel William Penn, Pittsburgh, U.S.A.
7LO—The British East African Broadcasting Co., P.O. Box 777, Nairobi, Kenya Colony.
WSXAF and W2XAD—General Electric Co., 1 River road, Schenectady, N.Y.
PKP—Governments Bureau Internationale Telephonie, Medan, Sumatra, P.E.I.
REN—Home of the Red Army, Moscow, Russia, U.S.S.R.
W9XAA—Chicago Federation of Labour, 623 South Wabash avenue, Chicago, U.S.A.
PK1AA—Radio Society, Batavia Hotel des Indis, Weltevreden.
W8XAL—Crosley Radio Corp., Cincinnati, Ohio, U.S.A.



RADIO ROME.

The illustration here shows an acknowledgments card received from Radio Rome by Mr. H. Jackson jnr. The station's schedule of English transmissions is given. St. Peters 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 telephones enable people in America



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

NOW
2/-

40 and 60 WATT
GAS FILLED,
CLEAR OR PEARL.

75 Watt - - 3/- 100 Watt - - 4/-

Ask to see "Silcolite"—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 Priced 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.

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

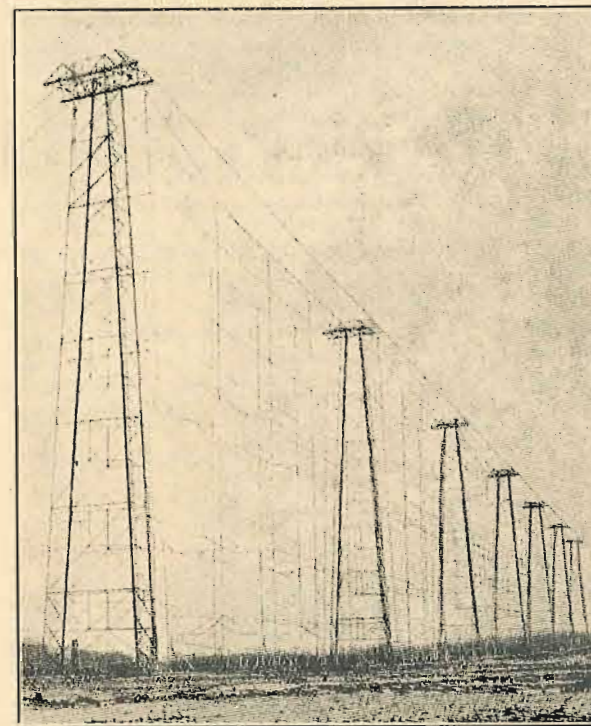
See them on STAND 16 at the Radio-Electrical Exhibition to-morrow night, and then arrange with your Radio Dealer for a Demonstration in Your Home.

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



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

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, suspending 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 unrivalled characteristics, close 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 £15.
- COSSOR three valve, complete at £12/19/-.
- 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.,
92 William Street, Perth,

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

COSSOR'S NEW 280/C.

IMPROVED FEATURES.

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

The new 280/C is capable of carrying a voltage of 350, an increase in voltage of 50 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 300.

"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 insist on "Dulytic" Electrolytic Condensers in preference to the block type condensers, that previously had to be used in banks, until these new revolutionary 8Mf 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. Carlyle & Company, Hay Street, are the W.A. distributors. Radio dealers please note.

Exclusive Features of New 1932 Astors.

NEW SPOTOLITE 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 member 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 districts in the vicinity of regional or broadcasting stations.

NEW METAL-CLAD SCREEN GRID VALVES (by PHILIPS).—The entire freedom from internal interference and the silent operation in between stations will impress the merest novice 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, mellow 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 Pentode power valves.

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

A POSER.

Father: What! another radio set, my boy! Where do you think I am going to get the money to pay for it?

Son: Good gracious, father, I'm only your son; not your financial adviser.

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

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

Every Electrical and Radio Need at

Bond A.C. Valves, 227, 245, 280, 11/6.
224, 13/6.

BAIRDS

Wave Traps 22/6
Wave Trap Coils with Diagram, 4/6

Headphones,
17/6 pair.

Hydrometers,
2/6 each.

"Formo" Variable
Condensers, 8/6.

IMPEX
DRY BATTERIES

Amplion A.C.2
Loudspeakers,
35/-

Duffy Short Wave
Adapter, assembled and tested,
complete with valves, £8/8/6.

"PIFCO" TESTERS—An ideal radio fault finder, includes Voltmeter and Milliammeter 29/6
"Mighty Atom" Crystals, 1/3; Detectors, Glass Enclosed, 4/3; Crystal Set Coils, with diagram, 3/- each. Cabinet Model Gramophones from £10/10/-; Portable, 42/6. All Leading Makes of Records — "Summit" from 2/-.

Electric Flashlights, round type,
2 Cell, 6/- Focussing, 8/6
Flat Pocket Type from 2/-

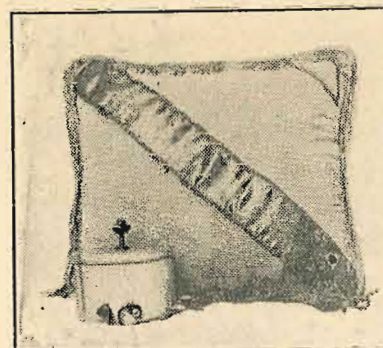
Electric Reading Lamps, clamp type,
from 18/6.

Electric Radiators from 15/-; Electric Kettles from 37/6; Toasters, 27/6 Irons, 18/6.

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 per 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 hams who in the past have listened 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 "Can 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.

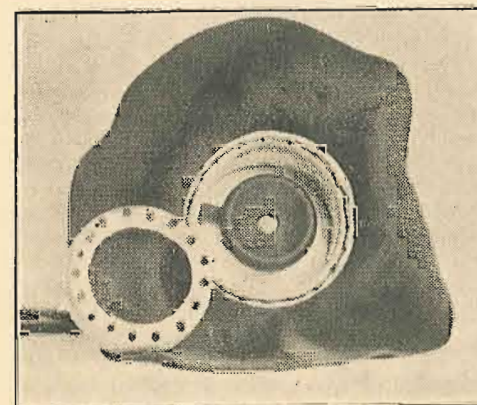
Earphones, except to the short wave fan, are out of date, but earphones are still used by many, especially

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 Brennan 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 barrelled earache, as would be the case if phones were used.

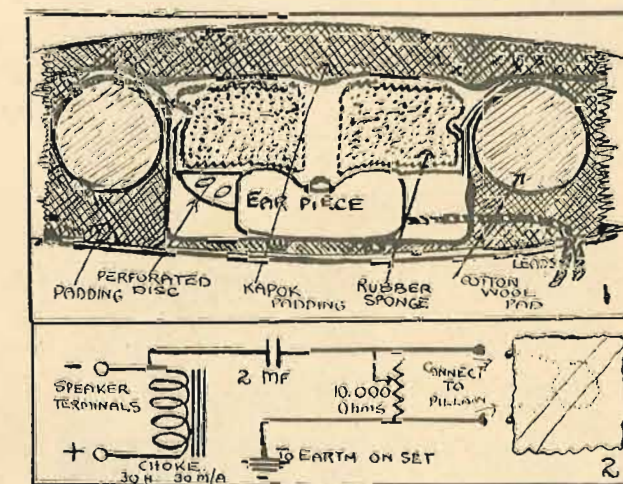
HOW TO MAKE THE WIRELESS PILLOW.

First of all obtain any ordinary telephone earpiece. 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 loaf can cut down and



invalids, 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 house 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 invalids, 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 1 1/2 inches in depth. Into this is fitted a metal lid with the bottom cut 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-heater" filament is of revolutionary design—twisted tightly around a central porcelain pillar it is practically unbreakable. Carbonised anodes 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 Boans for 1/-; it is only a small rubber sponge with a hole punched in the centre.

The leads from the earpiece are brought through a hole in the side of the can. Next get a piece of calico 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 sateen eighteen inches square. These are packed with kapok and joined together on three sides and round four inches on each end of the other side. There is then 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 fancy cushion 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 to 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/a choke (manufacturer's type), costing round 10/-, a 2mf. Chanex 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 next 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 sound demonstrations will not be permitted, you will no doubt be able to hear some of the sets 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 on its present power gets 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.

I 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 you hear that?"

For politeness sake you murmur something intelligible.

"Piston slap; I'll have to run her back in, I'm afraid."

Ten minutes later, surrounded by the dismantled engine, he is whistling merrily, happy as a skylark.

In the same category is the wireless terror, whose set is seldom or never in a condition for reception. His programme is usually as follows: 6 p.m. 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? I'll swear it wasn't there last night!"

THE RUSH TO REPAIR.

You suggest atmospherics; 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 hook it up tonight; I'll just run round to Stimson'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 bits.

Quite likely the trouble will vanish of its own accord. A bad attack of fading 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 det. 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 excusable 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

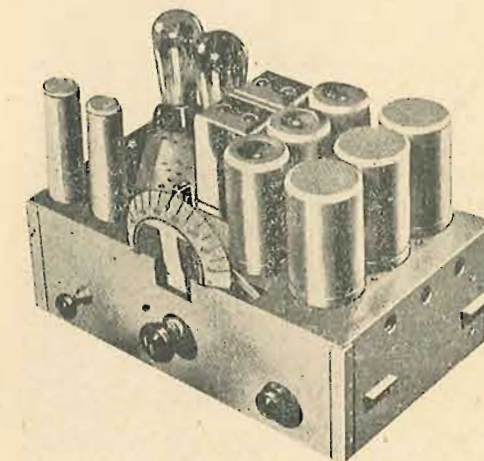
THE NEWEST IN RADIO

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.....M/C O.K.....OF SATISFACTION.

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

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.

FOR RADIO PHONE B.7201

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 now of paramount importance 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 entertainment 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 inaudible, 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 convenient 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 MU valves. Tone Control—for adjustment of tone to listeners' taste. Ultra-Selectivity—enabling 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. Musgrove's Limited, sole distributors for Stromberg-Carlson.

Amongst other exhibits of Musgrove'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-o-lites, for testing circuits of 116 to 550 volts A.C. or D.C., which quickly locate trouble with the electric circuits.

WHAT?

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

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

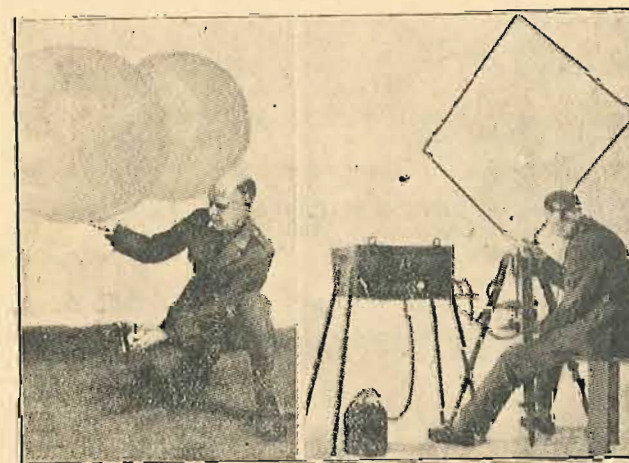


UNCLE ERIC OF 6ML.

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



On the left.—An Officer sending up the balloons with the transmitter, which weights 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-lying 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 flight 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 tube of copper, mounted on a tripod base. To the shaft 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-

cept for the fact that the receiver 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 snapped 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 2300 kilocycles of 130.5 metres.

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



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.

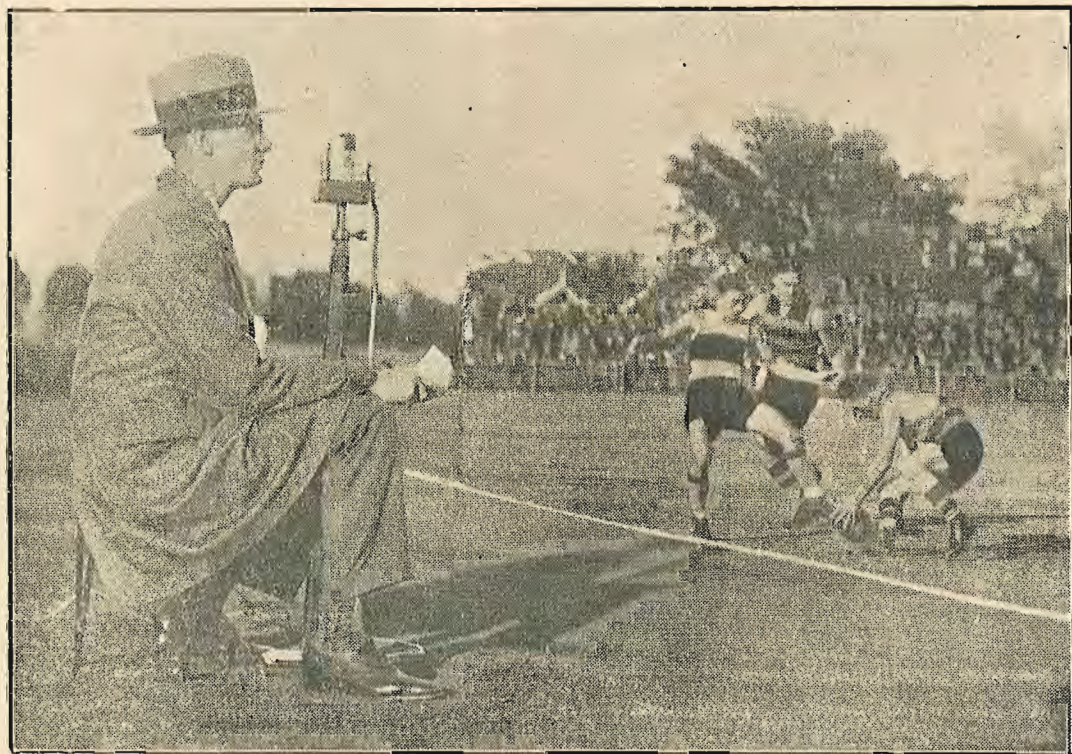
It has been found that the cluster will rise at the rate of approximately two hundred yards a minute and that this rate of ascension will continue until the internal pressure of the hydrogen gas exceeds the outer pressure of the rarified atmosphere and one or more of the balloons burst. Usually only 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 Monmouth 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.

FOOTBALL BROADCASTS AGAIN SOON.



MR. CHARLES WICKS, at the "Mike" of 6WF, broadcasting a football match to listeners. He will be heard again shortly, when the "Pigskin" booters get busy.

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 $1\frac{1}{2}$ volts. Batteries made on this formula are being used at present with good results by Mr. W. C. Grosser at Nornalup 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."



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: 35 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 little-used method of dodging bad interference from electrical mains, 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 earthenware drainpipe, 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 earthenware pipes are not obtainable. The aerial should be run down the centre of the pipe through plugs of dry wood soaked in paraffin wax or any other good insulator. Care must be taken to see that end is plugged so that the aerial will not make contact with the earth. The wax from an old battery melted and poured in will be quite suitable. The pipe should be put in a trough in the ground, say, three feet deep at one end coming out 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 certain its grid bias is correct?

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 in the loud speaker. Then, again, the small power valves of today have sometimes a greater magnification factor than last season's. As a consequence, the valve will not stand so large a grid bias.

Too much grid bias cuts down the anode current and therefore introduces distortion. Many a set would be improved by attention to this point.

AERIAL LEAKAGE.

If your aerial wire is allowed to pass 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 rig 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 as a leak in this part of the insulation may seriously affect reception. A bad aerial connection is often responsible for crackling and other noises often put down to static.

HUM ELIMINATOR.

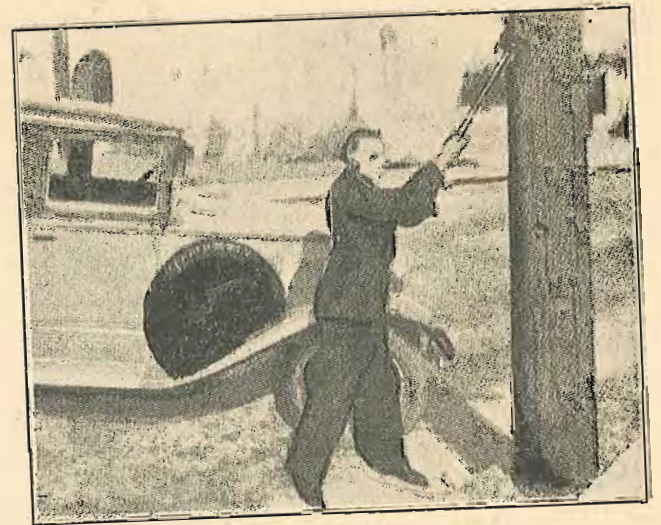
The joining of a small fixed condenser of about .0002 mfd. capacity between the earth terminal and earth lead is often of assistance in reducing humming interference.

An Automobile Radio To Run Down Man-Made Static.

**California Employs an Interference
Investigator.**

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 unsoldered at the joint where the three are joined together. This left two resistors in series to ground in those stages. The end thus unsoldered was connected to



Testing for Man-Made Static.

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 of circuit at will.

"In addition an extra set of pin 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 trams, 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.

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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 Electrical Fires, Stoves, Vacuum Cleaners, Motors, Electric Lamps, Shades and Fittings.

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Ring Either Number for

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

B7244

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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 10 miles on the amazingly short wave length of half a metre. 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 utilise 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 civilised 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-phone, 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 interest 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, 8,363,635 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 75 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.

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! Pause ere you try
To dissemble 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 dance at "The Bat."
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 here. It will pay W.A. Distributors and Agents for Australian-made Receivers to fit their chassis in our cabinets. We specialise in De Luxe Console, Console, Consolette, and Mantel 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 Any Particular Set or Combination.

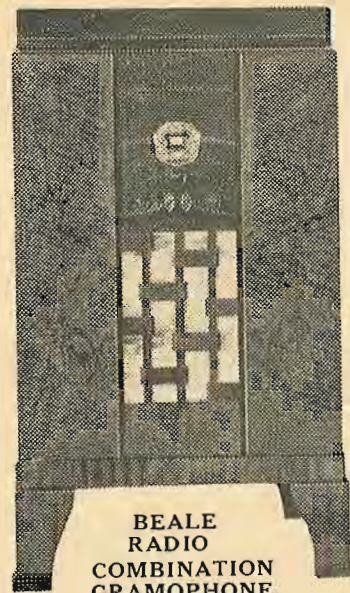
Prices and Specifications on application to:—

THE RADIO CABINET SPECIALISTS,

TURVEY BROTHERS,

519 BEAUFORT STREET, PERTH.

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BEALE
RADIO
COMBINATION
GRAMOPHONE.

Undoubtedly a Masterpiece, and as yet the finest Combination on the market.

AIRZONE

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

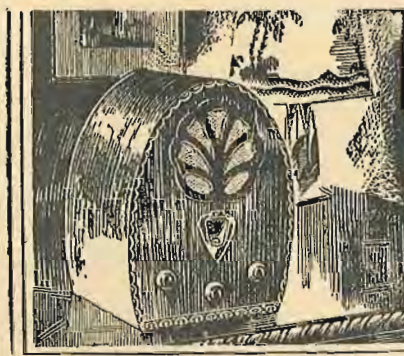


BEALE
CABRIOLE.
In Two
Distinct
Models.
Local
and
Distance.

BEALE

PANCHROMATIC RADIO

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



THE MIDGET

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

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.

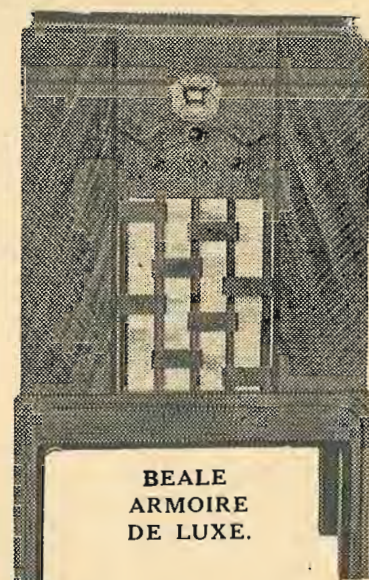
JONES — FREE — WESTINGHOUSE
ELECTRIC SEWING MACHINES.
BRITAIN'S LEADING MANUFACTURERS.

SILOVAC 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

C/r. QUEEN & ADELAIDE STS., FREMANTLE.



BEALE
ARMOIRE
DE LUXE.

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.



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 season.

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

former should 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 inoperative; 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 valves, when one is removed while the current is switched on it suddenly relieves the supply transformer of 1.75 amps 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

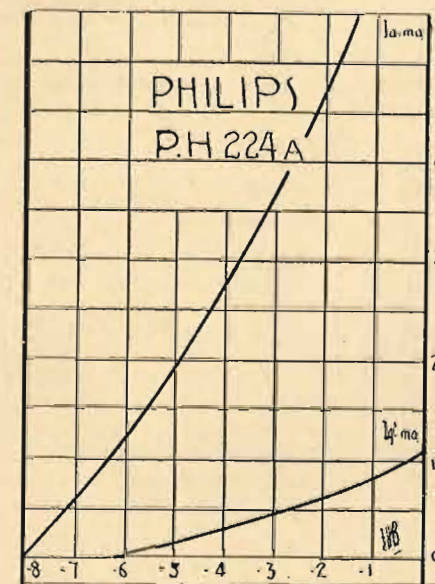


Figure 1.

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 anode current is approximately 5 to 6 milliamperes and the screen grid current approximately 1.5 milliamperes. The mutual conductance or slope is 1.0 milliamperes per volt, and the internal resistance about 400,000 ohms.

Externally the valve resembles the old types of 224 screen grid tubes, being equipped with standard five prong base (or "cap N") with grid connection to 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-

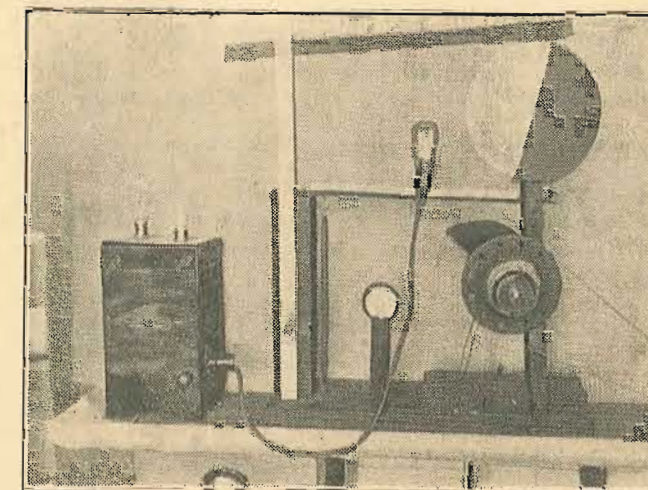


Figure 2.

thus giving stable operation. To assist this reduction of inter-electrode capacity it is advisable to keep all connections 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 50 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

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were expected. Special apparatus was constructed for this, a photograph of which is shown in Figure 2. The valve socket was rigidly bolted to a hinged arm about 2 feet long. This arm being held in tension by a strong spring, mounted directly under this arm was a revolving cam or a shaft and pulley, also a speed counter. This was driven by a small motor connected by a belt to the cam.

Valve No.	Hours test on	Vf= volts	Ia= m.A	Va= volts	I Vg= volts	No. of per- cussions	Results at end of test
1	3	2.5	6.0	200	90	45,000	still normal
2	2	2.5	5.8	200	90	30,000	" "
3	2	2.5	4.9	200	90	30,000	" "
4	1	2.5	6.2	200	90	17,000	" "
5	1	2.5	5.0	200	90	17,000	" "
6	1	2.5	5.8	200	90	15,000	" "
7	1	2.5	6.0	200	90	15,000	" "
8	1	2.5	5.3	200	90	15,000	" "
9	1	2.5	6.2	200	90	15,000	" "
10	1	2.5	6.0	200	90	15,000	" "

Figure 3.

It will be noted that the first valve received 45,000 percussions spread over an interval of three hours, during shaft pulley. From this combination it was possible to determine the number of percussions the valve received in testing. The valve socket was wired up to the test apparatus by means of a flexible wire cable, thus enabling a watch to be kept for any change in emission, fractures in spot welding, or short circuits between elements.

This test was most severe and of a nature far in excess of any treatment which a valve could receive in ordinary use. The results are tabulated in Figure 3, and show clearly, particularly the strength of complete welding of the inner leads, and the various bonding of

the electrodes, which fact no doubt accounts for the freedom from all those microphonic noises which are an undesirable feature of many screen grid tubes.

which time the valve was under working conditions. At the end of this time no alterations had taken place in the characteristics of the tube. In all cases the tubes stood up to this most severe test, and showed normal at the end of the test, of which time was the governing feature.

A Radio Route Through Africa.

On his flight from England to Cape Town, the pilot, Mr. Durant, of the English Air Ministry, interrupted his flight several times in order to exchange ideas with local authorities with a view to good radio communication.

During the entire journey the flyer was continually in touch with a chain of radio stations, such as Heliopolis, Wadi Hafa, Khartoum, Juba, Malakal, Port Bell, Nairobi, Moski, Mpika, Broken Hill, Salisbury, Bulawayo, Johannesburg, Victoria West and Cape Town.

The object of the flight was to establish between England and Cape Town a reliable air route with continual radio communication.

HSJ Bangkok Working

HSJ, on 38 metres has been heard working with KEE Bolinor, California. It is a 20 k.w. station, and can be heard on the 20 meter band working Berlin. But the music, etc., on the 38 meter wave length comes through better than anything on the air at present. Further tests are to take place at future dates, and listeners should look out for this station, as it is well worth getting.

Don't Buy Sets on Sight!

See them all at the Exhibition, then let us arrange for a demonstration in your home. Our easy terms make it possible to install a modern receiver in any home. Terms from £2/10/- deposit, and easy payments.

Seeing Sets Is No Criterion Of How They Will Perform.

We will Demonstrate any of —

THE SUPERB 1932
AIRZONE
MODELS.

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CONSOLIDATED MOTORS (1931) LTD.

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"Airzone" Distributors ——— and ——— "Astor" Distributors.

THE 1932 RANGE OF
ASTOR RADIOS
With Spotlight Tuning.

**Ultra Modern Receivers in Ultra Modern
Cabinets, at Prices That Please.**

Humour in Radio.

The Funny Side of Broadcasting.

By Paul Daly.



TO BE a successful radio entertainer it is absolutely essential that you should possess a sense of humour. People have often asked me where I get all the little quips and asides I employ during my work. No doubt you will be surprised to hear that I very seldom use what is known in professional language as a "gag." I simply talk about things that happen all around me in everyday life. For instance, we had a funny experience in the studio the other day. It is generally known that GWF is always willing to give local talent a fair trial, and periodical auditions are held to discover budding artistes. The usual procedure is for aspirants to call at the studio, hand in their name and address, duly appear at an audition and, if successful, in due course engagements are sent out to them. One singer, who had been calling at the office time after time without any encouragement, finally burst in and asked straight out, "Now, look here, can you book me or not?" The manager shook his head. "Very well, then," said the disgusted Caruso, "give me back my name and address." Quite a lot of people call at GWF, when the station is off the air, to have a look round the studio. One Saturday afternoon I happened to be on duty and a lady called with her two little girls. It appeared that the little ones wanted to see Uncle Paul. "Yes," said the mother, "I usually take them to the Zoo on Saturdays to see the monkeys and the reptiles, but today they insisted upon seeing you." We get some wonderful suggestions from listeners at times. One lady suggested that we should keep a cat in the studio and let it broadcast a few miaows during the evening. She said that it would sound homely, but we suspect that she is troubled with mice. We have some humorous correspondents also. One man gave his opinion of a violinist engaged in one of the programmes. He wrote, "After hearing — play the violin, I realise what a wonderful instrument the Baby Austin is." Every morning a portion of our programme is devoted to Women's Interests and advice is given on all sorts of matters of interest to mothers. This leads me to protest. What about a Father's Session? Father who is, after all, very often left in charge at home whilst Mother goes shopping, should be provided with hints. Well, here goes: When baby cries, lift her from the pram, shake thoroughly, invert once or twice, replace in pram and transfer to garden. Her crying should then be loud enough to attract the attention of any maternal-minded neighbour. When the latter says, "Oh, mayn't I take the little mite in and nurse her for a bit?" hand her over the fence, go indoors and finish your book in peace. Care should be taken not to go near the garden again, as the neighbour may wish to return the child.

A friend of mine informed me the other day that his mother-in-law came from a radio family. I asked him how he made that out. He said, "Well, we're getting nothing but interference from her." A woman who was rather hard to please with radio programmes, surprised her husband on his return from work by informing him that she had got something good on the wireless set at last. "Oh," said her spouse, who was somewhat of a radio fan, "what did you get?" She said, "I got thirt-bob on it at the pawnbroker's." Radio plays have been very popular lately and, recently, I was rather surprised to hear that one of our regular listeners did not care for the play broadcast the night before. I enquired the reason and he said, "Well, I heard the first act and it was goodo, but I shut off after that because I couldn't wait—the announcer said that there was an interval of six months between the first and second acts. I made a slight faux pas the other evening at one of the Community Concerts. At the end of one of the songs, I could distinctly hear someone hissing, so having spotted the culprit I went down to him and told him that if he persisted in hissing he would have to leave the hall. "Hissing," he said, "I w-w-was s-s-simply s-s-saying that the s-s-singing was s-s-superb." Well, now, to get down to this cheerfulness business. I have a confession to make. One of the principal reasons for my modest success at 6WF is my wife. She is my severest critic and my greatest booster. She frequently sits at home listening to my efforts in the studio. She criticises my work, not as my wife, but as an average listener. She often suggests little ideas to me and her suggestions are always welcome. We both realise that there is enough depression in the world without broadcasting it, and a man who gets home after a hard day's work settles down beside his radio to be amused—not depressed. My harmony and cheerfulness begins in my home, and I try to infuse it into my work in the studio. In conclusion I should like to offer a little advice to those who aspire to radio prominence. If you are a singer, find a good teacher who will insist on good diction and purity of tone. Make a list of all the songs the other singers use and decide not to sing any of them. Choose a repertoire of simple melodic compositions and change your songs each time you broadcast. If you depend upon your speaking voice—either as an elocutionist or a comedian—be natural, use the language of your fellow men. Don't say "Nace" for "Nice" or "Quate" for "Quite." Don't be too dashed correct. Listeners resent it—they will forgive a slip rather than layers of affectation. In other words—Be Yourself. Cheerio, everybody!

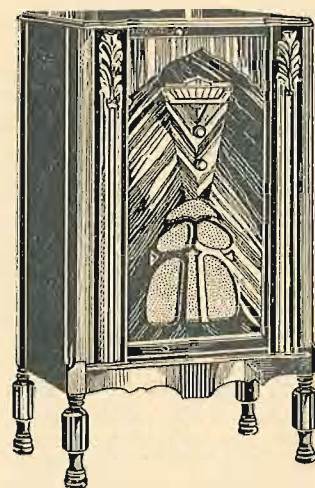
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1932 Series of Radio Receivers.

FOUR MODELS:—

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



Prices from
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£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.

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152 WILLIAM STREET, PERTH.

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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 Matinee.
3.0—Vocal and instrumental gems.
3.30—Talk by a representative of the Country Women's Association.
3.40—Melodies grave and gay.
4.30—Close.

6WF—Early Evening Session.
6.0—Goodnight stories by Uncle Bas.
6.25—Hal McKail talks to members of the Younger Set.
6.35—Dinner music.
7.15—Dr. J. S. Battye, B.A., LL.B., continues his series on Men Who Have Made History.
7.30—Weather and market reports.
7.45—The Daily News news service.
7.58—What's on the air tonight.

6WF—Evening Session.
8.0—From Temple 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 Stancliffe, soprano: Shadow Song from Dinorah (Meyerbeer); Lullaby (Scott).
8.31—Entr'acte: Knowantchina (Moussorgsky).
8.35—David Lyle, tenor: A Spirit Flower (Tipton); I Live For You (Thompson).
8.42—Talk by Rev. C. A. Jenkins: Two Goldfields Mysteries.
9.0—From the Radio and Electrical Exhibition: Irene Stancliffe, soprano: Rosebuds (Arditi); The Song in my Heart (D'Hardelot).
9.7—Phyllis Blott, L.Mus.A., pianist: Prelude in C Sharp Minor (Rachmaninoff).
9.13—David Lyle, tenor: Roses of Picardy (Haydn Wood); This Day, from Mattinata (Leoncavallo).
9.20—From the Studio. The Sieber Choir: The Blue Danube (Strauss).
9.24—By special request. Mozart's Clarinet Quintet in A Major, by the Lener String Quartet in association with Charles Draper.
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 Hovts Radio Club Women's Session.
11.40 to 12.0—Orchestral and vocal selections.
12.0 to 12.30—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.
3.0 to 4.0—Orchestral and vocal selections.

6ML—Early Evening Session.
5.45 to 6.15—Children's session by Uncle Eric and Auntie Laurel.
6.15 to 6.45—Dinner music.
6.45 to 6.55—Fox Hovts 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 Don Fatale (Don Carlos), Marion Anderson, contralto in Italian.
8.28—Dawn, Adagio in F Major, Op. 53, No. 22: Benno Moiseiwitsch, piano.
8.31—Beloved it is Morn: Richard Crooks, tenor.
8.35—Fete, Dieu a Seville: Philadelphia Symphony Orchestra.
8.43—Manon, 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, in One Sudden Moment (Madam Butterfly), Browning Mummery, tenor.
9.4—Marche Militaire: Arthur Meale, organ.
9.7—The Wraith: Theodor Chaliapin, bass in Russian.
9.11—Dreams: Chicago Symph Orch.
9.15—Margaret at the Spinning Wheel: Duse-Giannini, soprano in German.
9.20—Relay from Radio and Electrical Exhibition of 6ML's stage presentation: Ballade: Mr. Ohas. A. Huddle, piano. Mazurka de Concert: Mr. Keith Cum-

mings, violin. Kol Nidrei: Mr. S. T. Morley, cello. Song Without Words: trie by C. A. Huddle, K. Cummings, S. T. Morley.

9.40—From the Studio. Mlada, Cortege des Nobles: London Symph Orch.
9.44—Plaisir d'Amour: Marion Anderson, contralto in French.
9.48—Hunting Song (Songs Without Words) Benno Moiseiwitsch, piano.
9.52—Ah, Moon of My Delight (In a Persian Garden), Richard Crooks, tenor.
9.56—Carissima: New Symph Orch.
10.0—Manon, Farewell Our Little Table: Mlle. Feraldy, soprano.
10.5—Andantino: Arthur Meale, organ.
10.9—The Whole World Over (Madam Butterfly), Browning Mummery, tenor.
10.14—Russlan and Ludmilla Overture: Chicago Symph Orch.
10.18—Death and the Maiden: Theodor Chaliapin, bass in Russian.
10.22—Rigoletto Selection: Marek Weber and Orch.
10.30—God Save the King.

6PR — TUESDAY APRIL 19, 1932.

10.30 to 11.30—Items of interest for women. Music.
1.0 to 2.0—Music.
4.30 to 5.30—Vogue Radio Hour music.
6.30—Children's Session, conducted by Uncle Peter.
7.0—News Service supplied by The Daily News. Music.

6PR—Evening Session.

8.0—Opening speeches of the Radio Exhibition.
8.20—Dollar Princess Medley, Shilkret and Orch. Lo Hear the Gentle Lark, Marion Talley. Marche Festive, Arthur Meale. Shepherds Madrigal, Kreisler. Bohemian Dance, Backhaus. Troop les Hugonots, Royal Air Force Band. Black Diamond Overture, B.B.C. Wireless Band. Waltz, Levitzki. Kashmiri Song, Hackett.
9.0—Items by the Subiaco Choir. How Lovely are Thy Dwellings Fair; Viking Song; It Comes from the Misty Ages. La Golondrina, Troubadours. Siesta, de Groot. Show Boat, Mayfair Orch. Valse Inspiration, Hazlett. A Sprig of Rosemary, Coltham. Carnorala Suite, Alfred Cortot. Take a Pair of Sparkling Eyes, Sgt. Hawkins. What a Day. Weems and Orch. Jack the Giant Killer, Penrose. All Hands March, U.S. Navy Band. Vienna by Night: Weber and Orch.
10.30—Close down.

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

PIDGEON'S New Radio Centre NOW OPEN AT 814 HAY STREET, PERTH.

Expert advice on all makes of sets willingly given. Demonstrations, without obligation, in your home with pleasure. A large stock of new and used radio components to select from, and all the leading makes of valves.

FOR RADIO BARGAINS IN SETS OR PARTS, GO TO
PIDGEON'S RADIO EXCHANGE,
NOTE THE ADDRESS: 814 HAY STREET



FOR RADIO BARGAINS.

6WF — WEDNESDAY APRIL 20, 1932.

6WF—The Radio Matinee.
3.0—Comic opera, old and new.
3.30—Talk by a representative of the National Council of Women.
3.40—Musical pot pourri.
4.30—Close.
6WF—Early Evening Session.
6.0—Goodnight Stories by Uncle Bas.
6.25—Model Aero Club Session conducted by J. G. Paterson.
6.40—Dinner Music by Harris, Scarfe & Sandovers.
7.15—Anita Fitzgerald, talk: English for this year's Junior University Examinations.
7.30—Weather report, market reports and Stock Exchange information.
7.45—The Daily News news service.
7.58—What's on the air tonight.

6WF—Evening Session.
8.0—From the Perth Town Hall. Grand Concert in aid of the Boys' Employment League. Ken Jones Orchestra: Overture, Ballet Rosamund (Schubert).
8.3—Opening chorus: Walk up, We're just Beginning (Low).
8.7—Humorous number: One by One (Cecil).
8.11—Paul Buddee, flautist: Butterfly (Kohler).
8.15—Allan Johns and Alvin Kurts: Rhyming Duet (Wilcock).
8.20—Humorous sketch: Italiano de Lingo (Newman).
8.25—Ken Jones, violinist: Canzonetta (Ambroise).
8.30—A Domestic Tangle: The Last Straw.
8.33—Vocal solo: Tramp, Tramp, Tramp (Woods).
8.38—Concerted number: The Rag Time Laundry.
8.44—Orchestral interlude.
8.51—Ken Jones Orchestra, entr'acte: Eileen Alannah (Barker).
8.54—Roy Facey, xylophonist: Repaz Band (Sousa).
9.1—Humorous sketch: Army A.B.C. (Low).
9.8—Vocal solo, selected.
9.13—One act play: The Chairman.
9.21—Alvin Kurts, monologue: The Singing Soldiers, from Ginger Mick (Dennis).
9.28—Alec McMahon, cornetist.
9.33—Novelty number: Walking my Baby Back Home.
9.40—Harry Eagles, novelty pianist: Nola (Garndt).
9.45—Comedy sketch: The Temporary Wife.
10.10—Final chorus: Have you no Homes?
10.13—Late weather forecast and announcements.
10.16—Melodies from many lands.
10.55—Resume of tomorrow's programme.
11.0—National Anthem, Close.

6ML — WEDNESDAY APRIL 20, 1932.

6ML—Women's Radio Session.
11.0—Shopping guide. Orchestral selections.
11.30—Favourite Songs Interlude, by Edna Curtis (soprano) accompanied by the Bechstein Welte reproducing piano.
11.40—Music.
12.0—News service presented by The West Australian Newspaper Co.
6ML—Luncheon Session.
12.30 to 2.0—Market report. Orchestral, vocal and instrumental music.
6ML—Afternoon Session.
3.0 to 4.0—Light classical selections.
6ML—Early Evening Session.
5.45—Children's session by Uncle Eric and Aunty Laurel.
6.15—Dinner music.
6.45—Fox-Hoyts Radio Club Session.
6.55—Dinner music.
7.15—News service presented by The West Australian Newspaper Co.
7.30—"Eve's Talk to Adam," Miss Nellie Stewart.
7.55—Boys' Employment League talk.

6ML—Evening Session.
DANCE PROGRAMME.
8.0—Many Happy Returns of the Day: It's the Girl: I'm thru with Love (fox trot).
8.10—Maammy's Little Cuckoo Black Rose: Otto Gray, vocal with orch.
8.13—You're in my Heart Alone: Dream a Little Dream of Me: Have You Forgotten? (fox trot).
8.23—When You Come to the End of the Day: Otto Gray, vocal with orch.
8.26—Moonlight on the Colorado: Song of the Big Trail: When the Organ Played at Twilight (waltz).
8.36—What Does the Deep Sea Say?: Lester McFarland and Robert A. Gardner, vocal duet.
8.39—Oh, How I Miss You: He's my Secret Passion: Oh, How I Miss You (fox trot).
8.49—Twenty-one Years: Lester McFarland and Robert A. Gardner, vocal duet.
8.52—You've Found the Only One: It Must be You: Gypsy Love Song (waltz).
9.2—Falling in Love With You: John Thomas, vocal with orch.
9.5—It Must be True: Gaiety: Maybe it's Love (fox trot).
9.15—Café Rag: Back to You: John Thomas, vocal with orchestra.
9.18—You'll Be Mine in Apple Blossom Time: I Don't Know Why: My Canary has Cuckoo Under his Eyes (fox trot).
9.28—The Man who Brings the Sunshine: Peter Dawson, bass, harmony.
9.31—Beautiful Love: If I'm Dreaming: My Cradle Sweetheart (waltz).
9.41—The Smugglers: Peter Dawson, vocal.
9.44—To Whom it May Concern: Sally: To Whom it May Concern (fox trot).

9.54—The Border Ballad: Robert Watson, baritone.
9.57—Rock me in a Cradle of Kalua: Just Two Hearts and a Waltz Refrain: After the Dance (waltz).
10.7—The Standard of the Braces of Mar: Robert Watson, baritone.
10.10—I'm Happy When You're Happy: Sweet Summer Breeze: Two Little Blue Little Eyes (fox trot).
10.20—Songs I Heard at Mother's Knee: Billy Foster, vocal with orch.
10.23—Molly, There Will Never be Another: Mary (waltz).
10.30—God Save the King.

6PR — WEDNESDAY APRIL 20, 1932.

10.30 to 11.30—Women's session. Music.
1.0 to 2.0—Music.
4.30 to 5.30—Vogue Radio Hour Music.
6.30—Children's Session, conducted by Uncle Peter.
7.0—Daily News Service.

6PR—Evening Session.
8.0—Egmont Overture, Classic Symphony Orch. To a Wild Rose, Gaskoff. The Windmill, Foster Richardson. Tom Jones, Grenadier Guards. Don Juan Serenade, Backhaus. Bubbling Over With Love, Payne and O'Connell. Spanish Dance, Pablo Casals. Air de Ballet, S. Gustard. Salome, Beethoven Philharmonic Orch. Legende, Brownlee. Parade of the Elephants, Grenadier Guards.
8.45—Arise O Sus. Mrs. B. Ellis. Easter Flowers, Mrs. G. Withers. You are my Heart's Delight, Mr. G. Clarke.
9.30—Watermelon Fete, Intava. Nov. Quartet. Hungarian Rhapsody No. 4, Halle Orch. Espanita, Kroeger. Columbine Caprice, Like a Breath of Springtime, Basse and Grech. Tale of the Ticker, Orumit. Squire's Popular Songs, Grenadier Gds Band. Come to the Fair, Richardson and Webster. Serenade Hassan, B. Harrison. Dream Lover, E. O'Henry. The Postillion, Polista Nat. Orch. Bustle of Spring, Hans Barth. Goliwogs Cake Walk, B.B.C. Wireless Band. A Courtship, Richardson. Spread a Little Happiness, Gil Dech. Mister Cinders, Debroy Somers Band.
10.30—Close down.

6WF — THURSDAY APRIL 21, 1932.

6WF—The Radio Matinee.
3.0—Excerpts from the Classics.
3.30—Talk by a representative of The Women's Service Guild.
3.40—With famous bands and orchestras.
4.30—Close.
6WF—Early Evening Session.
6.0—Goodnight stories by Uncle Bas.
6.25—Hed McKail talks to the members of the Younger Set.
6.35—Dinner music.

6.45—Leo Ryan, sporting and athletic review.
7.0—Dinner music.
7.15—University extension lectures.
7.30—Weather and market reports.
7.45—The Daily News news service.
7.58—What's on the air tonight.

6WF—Evening Session.
8.0—Overture: Sea Songs Megley.
8.4—The A.B.C. Players present the studio dramatization of the famous mystery of the sea "The Loss of the Marie Celeste," by special arrangement with the B.B.C. Direction, Harry Graham; production, Paul Daly. Cast: Prologue, The American, The Englishman, The Play: Captain Morhouse, skipper of the Del Gracia; His Mate; The Bosun; Captain Briggs, master of the Marie Celeste; Mrs. Briggs, his wife; The Mate; The 2nd Mate; Gottlieb, Volkerk, foreman, members of the crew; The Steward; sailors, stevedores, wharf labourers, etc. The action takes place on the high seas.
9.11—Interlude: Nautical Moments (arr. Winter).
9.15—The A.B.C. Vaudevillians present an hour of Vaudeville Varieties comprising skills, vocal gems, humorousities, and what-nots.
10.13—Late weather forecast and announcements.
10.18—Popular melodies.
10.55—Features of tomorrow's programme.
11.0—National Anthem. Close.

6ML — THURSDAY APRIL 21, 1932.

6ML—Women's Radio Session.
11.0—Shopping guide. Orchestral selections.
11.30—Fox-Hoyts Radio Club Women's Session.
11.40—Orchestral and vocal selections.
12.0—News service presented by The West Australian Newspaper Co.
6ML—Luncheon Session.
12.30 to 2.0—Luncheon music: light orchestral, instrumental and vocal selections.
6ML—Afternoon Session.
3 p.m. to 4 p.m.—Light orchestral and vocal music.
6ML—Early Evening Session.
5.45—Children's session conducted by Aunty Laurel and Uncle Eric.
6.15—Dinner music.
6.45—Fox-Hoyts Radio Club Session.
6.55—Music.
7.15—News service presented by The West Australian Newspaper Co.
7.30—Music.
7.45—Organ recital by Mr. James Miller, relayed from Hoyts Regent Theatre.

6ML—Evening Session.
8.0—Because of Love and You: De Groen and Piccadilly Orch.
8.3—Spring, Beautiful Spring (waltz). International Concert Orch.
8.7—Le Cygne: De Groen, violin with piano.
8.10—Vienna Blood (waltz). International Concert Orch.
8.15—Shell Company's Entertainment.
8.45—Relay from Radio and Electrical Exhibition of programme presented by the Western Military Band: Under the banner of Victory, march; Tanager, overture; Vision, Moreau; Melodious Memories, selection; Victory Blot, waltz; Asana, intermezzo.
9.30—From the Studio. A musical Trip Round the British Isles: Reginald Foort, piano organ.
9.39—The Bandolero: Peter Dawson.
9.43—Lollipop: Michele Ortuso, banjo.
9.46—Oh, Could I but Express in Song: Theodor Chappin, bass.
9.49—Hungarian Dance, No. 3 and No. 1: Vienna Philharmonic Orch.
9.55—Cupid, Look About Thee: Gresham Singers.
9.58—The Jewels of the Madonna: Mark Hambourg, piano.
10.1—Bedouin Love Song: Peter Dawson.
10.5—Tessie! The Prets: Michele Ortuso, banjo.
10.8—The Blind Ploughman: Theodor Chappin, bass.
10.11—The Handkerchief Dance: Mark Hambourg, piano.
10.14—Maiden, Lovely Maiden: Gresham Singers, male quartet.
10.17—Had You But Known: Mario Chamlee, tenor in French.
10.21—La Source, Ballet: Colostreant Guards Band.
10.30—God Save the King.

6PR — THURSDAY APRIL 21, 1932.

10.30 to 11.30—Women's session. Music.
1.0 to 2.0—Music.
4.30 to 5.30—Vogue Radio Hour music.
Talk for Women on Fashions, sponsored by Fashion House.
5.30—Yakumba Wala, half hour.
7.0—News Service, supplied by The Daily News, Music.
6PR—Evening Session.
8.0—Mister Cinders, Debroy Somers Band.
I Love Someone in Somerset, Butcher.

Algerian Scene, A. Sandler. Bench in the Park, Whiteman's Orch. Bolera, Lemmatt. My Radio Girl, Devotion. Terence Casev. Willow Song, Mavis Bennett. Mazurka, Pablo Casals. O Star of Eve, Squire Band. Down South Medley, Toni Katz Band. Love's Waltz, Paul Astor. Beggar's Opera, Rose of my Heart, Coltham. In a Persian Market, Maclean. I Just Roll Along, Starita and Band. Dance of the Raindrops, Rudy Starita. Waltz in A Flat, Max Darewski. Stars in a Velvet Sky, Jas. Compton. Valse Menories, Debroy Somers Band. Amateur Theatricals, Flowers of the Forest, J. Linden. Matinata, The Gypsy Baron, Kaufman and

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10.30—Close down.

6WF — FRIDAY APRIL 22, 1932.

6WF—The Radio Matinee.
3.0—Band music and rickrolling ballads.
3.30—To-day's Feature Story.
3.40—Popular melodies.
4.30—Close.
6WF—Early Evening Session.
6.0—Goodnight Stories by Uncle Bas, and Concert by children of the 6WF Radio Club.
7.0—Dinner Music.
7.15—Russell Sandeman, Racing acceptances and Racing and Trotting anticipations.
7.30—Weather and Market Reports and Stock Exchange Information.
7.45—"The Daily News" News Service.
7.58—What's on the air tonight.

6WF—Evening Session.
8.0—Genus from the Masters, annotations by D. Heinrichs, Haydn: Adagio Cantabile Vices Assai (Symphony No. 6 in G). Mozart: Minuetto and Trio, Cradle Song (Stadler Quintet). Beethoven: Andante con moto (Symphony No. 5). Schubert: The Wanderer; The Linden Tree, Tchaikovsky: Andante Cantabile, Op. 1.
8.45—From the Radio and Electrical Exhibition, Nora Coastad, brilliant West Australian pianist; Rigoletto Paraphrase (Verdi-Liszt). Eileen Hart, contralto: Arise, O Sun (Day); O Night of Stars and Splendour (Thompson). Paul Daly, humorsities. Lulu Potter, soprano (with flute obligato): The Blue Danube (Strauss); The Echo Song (Bishop). Harry Graham and Mrs. Dorothy Graham, entertainers. Keith Watts, tenor: Finiculi Finicula (Denza); Marie Marie (Friml). Thelma Howard, soprano: Ring Bells Ring (Day); Devotion (Haydn Wood). Margaret Sharp, L.M.S.A., violinist: Caprice Viennois (Kreisler).
9.30—Late weather forecast and announcements.
9.35—Royal Opera Orchestra: Sylvia Ballet Suite (Delibes).
9.53—National music.
10.55—Features of tomorrow's programme.
11.0—National Anthem. Close down.

6ML — FRIDAY APRIL 22, 1932.

6ML—Women's Radio Session.
11.0—Shopping Guide. Orchestral selections.
11.10—"Foot Comfort," talk by Mr. G. Nelson.
11.20—Music.
11.40—Recipes, orchestra and vocal selections.
12.0—News Service, presented by the "West Australian" Newspaper Co.

6ML—Luncheon Session.
12.30 p.m. to 2 p.m.—Light orchestral and vocal music, market report.
6ML—Afternoon Session.
3.0—Light orchestral and vocal music.
6ML—Early Evening Session.
5.45—Children's Session by Auntie Laurel and Uncle Eric.
6.15—Dinner music.
6.45—Fox-Hoyt's Radio Club Session.
6.55—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—Intermezzo, Cavalleria Rusticana: New Light Symphony Orchestra.
8.4—When the Organ Played at Twilight: Jesse Crawford, Wurlitzer organ.
8.7—Les Mille d'Arlequin Serenade: The Piccadilly Orch.
8.10—Old Folks at Home: Kreisler, violin.
8.13—Wedding of the Rose: Coldstream Gds Band.
8.16—Ezywalkin' ringside boxing description relayed from Unity Theatre.
8.45—Barcarolle: New Light Symp Orch.
8.48—The Kiss Waltz: Jesse Crawford, organ.
8.51—Old Spanish Song: Piccadilly Orch.
8.54—Souvenir: Fritz Kreisler, violin.
8.57—Hobomake, Intermezzo: Coldstream Guards Band.
9.0—Ezywalkin' ringside boxing description continued.
10.30—"God Save the King."

6PR — FRIDAY APRIL 22, 1932.

10.30-11.30—Women's Session; Music.
1.0-2.0—Music.
4.30 to 5.30—Vogue Radio Hour Music.
6.30—Children's Session, conducted by Uncle Peter.
7.0—"Daily News" News Service, Dinner Music.

6PR—Evening Session.
8.0—Gipsy Baron, Symp. Orch. Song of Songs, Richard Crooks. Serenade in G Major, M. Elman. Martial Moments, Grenadier Guards Band. Ballade in A Flat, Mosiewitsch. O Star of Eve, Pablo Casals. Love Has Eyes, Giannini. Dollar Princess Medley, Shikret and Orch. Habanera, Heifetz. At Sunset, Jas. Compton. Waltz, Fanny Hekky. Laver-cargill Selections. Royal Air Force Band.
8.45—Gardening Talk by W. Dawson.
9.0—Dance Programme.
10.30—Close Down.

6WF — SATURDAY APRIL 23, 1932.

6WF—Early Evening Session.
6.0—Goodnight stories by Uncle Bas.
6.25—Dinner music.
7.10—State and interstate sporting results.
7.30—Weather and market reports.
7.45—"The Daily News" news service.
7.58—What's on the air tonight.

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6WF—Evening Session.
8.0—Radio Rhythm Rascals: Here We Are, fox trot (Romberg); Moonlight Saving Time (Kehal).
8.7—Vocal interlude.
8.10—Radio Rhythm Rascals: Elizabeth (Katscher); Mo (Berlin).
8.17—From Brennan Park: Results of 1st and 2nd and running commentary of 3rd event.
8.24—Radio Rhythm Rascals: One Little Raindrop (Richman); Dream a Little Dream of Me (Hainy).
8.31—Vocal interlude.
8.34—Radio Rhythm Rascals: To be Forgotten, Waltz (Berlin); Le Million (Bernard).
8.41—Vocal interlude.
8.48—From Brennan Park. Running commentary of 4th event.
8.55—Radio Rhythm Rascals: Memory Moon fox trot (Robb); Trying to Forget (Davis).
9.2—Vocal interlude.
9.5—Radio Rhythm Rascals: Yours and Mine (Nelson); Stones (Plantadosi).
9.12—Vocal interlude.
9.19—From Brennan Park. Running commentary of 5th event.
9.26—Radio Rhythm Rascals: White Hearts are Singing, old time waltz (Strauss).
9.33—Vocal interlude.
9.36—Radio Rhythm Rascals: Dixiana, fox trot (Turner); Running Between the Raindrops; Beyond the Blue Horizon (Whiting).
9.43—Vocal interlude.
9.46—Radio Rhythm Rascals: You'll be Mine in Apple Blossom Time (Tobias); I Miss a Little Miss (Seymour).
9.52—From Brennan Park. Running commentary of 6th event.
10.0—Late weather forecast and announce-
ments.
10.5—Radio Rhythm Rascals: My Canary has Cretes (Kahler); Looking for the Lovelight (Burke).
10.10—Vocal interlude.
10.13—Radio Rhythm Rascals: Two Little Blue Little Eyes (Webster); I'm Following You (Dreyer).
10.20—Vocal interlude.
10.23—From Brennan Park. Running commentary of 7th event and complete resume of previous events.
10.32—Radio Rhythm Rascals: For You (Dubin); You'll Find Your Answer (Gillbert).
10.40—Vocal interlude.
10.43—Radio Rhythm Rascals: Buttercup Lane (Dubin).
10.45—Resume of today's race meeting at Goodwood.
10.50—Radio Rhythm Rascals: We all go O Ha Ha (Harrington); You Didn't Have to Tell Me (Donal'son).
10.55—Features of tomorrow's programme.
11.0—National Anthem. Close.

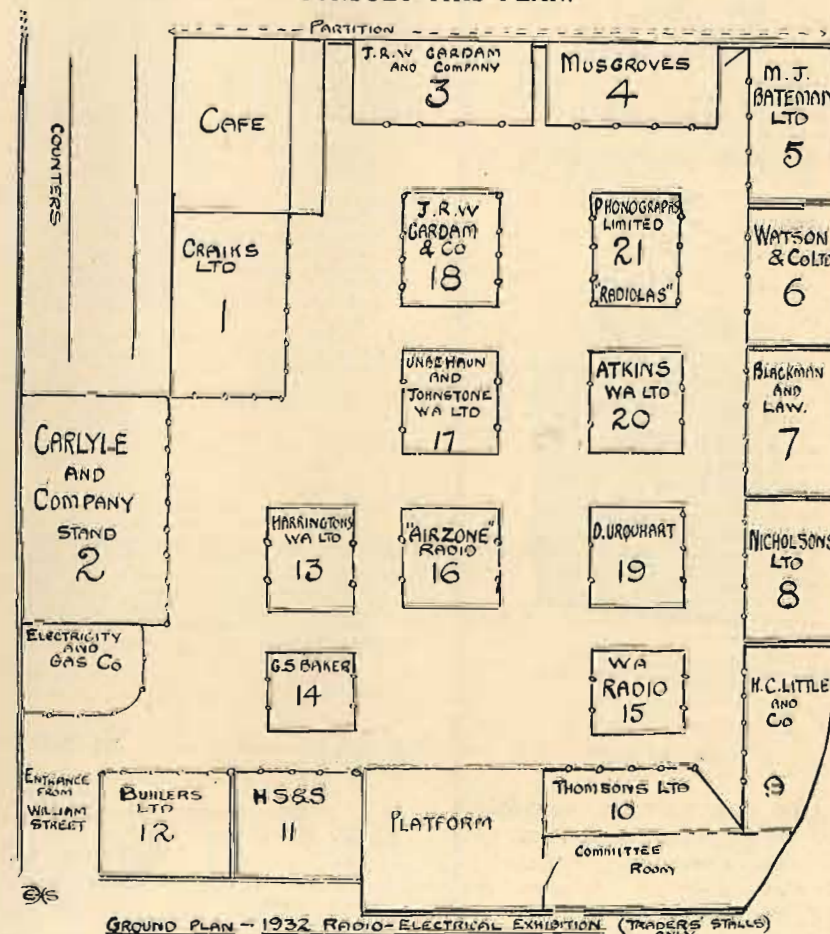
6WF—Evening Session.
8.0—The Vagabond King Selection: Savoy Havana Band.
8.9—Harry Lander, Vocal Gems: Scottish Male Voice Singers.
8.18—Petticoat Lane; Russian Fantasy: Debroy Somers Band.
8.26—Maid of the Mountains Waltz: The London Palladium Orchestra.
8.30—Jigger Memories. A special Anzac Eve presentation by The Whizz Bang Concert Party.
9.30—Cavatina: New Light Symp Orch.
9.35—Merrie England, Vocal Gems: Light Opera Company.
9.44—Nails: De Groot (violin), David Bor (piano), Reginald Kilbey (cello).
9.47—The Last Hour: John McCormack.
9.50—Pique Dame Fantasia: Dajos Bela Or.
9.59—The Gay Highway: Robert Easton, bass with piano.
10.2—Menuet: Cedric Sharpe, 'cello.
10.5—Katja the Dancer (waltz), The London Palladium Orchestra.
10.8—Calm as the Night: John McCormack.
10.11—Solemn Melody: New Light Symp Orch.
10.15—On the Road: Robert Easton, bass.
10.18—Lullaby: Cedric Sharpe, 'cello.
10.21—Patience, Selection: Coldstream Gds Band.
10.30—God Save the King.

6ML — SATURDAY APRIL 23, 1932.

6ML—Women's Radio Hour.
11.0—"Shopping Guide," orchestral and vocal music.
12.0—News service presented by The West Australian Newspaper Co.
6ML—Luncheon Session.
12.30 to 2.0—Luncheon music, light orchestral, instrumental and vocal selections.
6ML—Afternoon Session.
3 p.m. to 4 p.m.—6ML Birthday Club Programme.
6ML—Early Evening Session.
6.0—Dinner Music, light orchestral, instrumental and vocal selections.

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6PR — SATURDAY
APRIL 23, 1932.

10.30 to 11.30—Music.
1.0 to 2.0—Music.
4.30 to 5.30—Vogue Radio Hour.
6.30—Children's Session, conducted by Uncle Peter.
7.0—Daily News news service. Dinner music.

6PR—Evening Session.

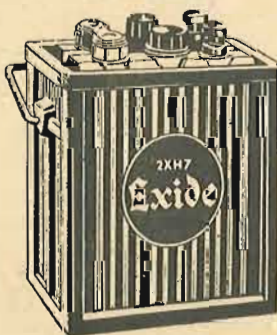
8.0—Kamenoi Ostrow, Victor Symph. Orch. Barcarolle, Baillie and Walker, Scherzo. W. H. Squire. Old and New, Finck and Orch. Valse Bluetto, Heifetz. Dance Creole, Una Bourne. Close Props, Harry Dearth. Policeman's Holiday: Coldstream Guards. Serenade, Cedric Sharpe. Hawaiian Sandman, J. Crawford. Shepherd's Fennel Dance, Royal Opera Orch. In Distant Lands, Hislop. Spanish Serenade, Cherniavsky Trio. Virginian Serenade, Walter Kooly. At the Fountain. Cockerill. Cavalry of the Clouds, Casse Noisette, Reg Foort. Poupée Valsante, Sascha. The Rustle of Spring, Irene Scharrer. Show of Shows, London Cinema Orch. Chant Sans Paroles, Squire Celeste Octet. Tom Jones Selections. Grenadier Guards Band. Curtain Lecture, John Henry. Chiconne, Jacobs. Gaiety Echoes, Finck and Orch.
10.30—Close down.

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6WF — SUNDAY
APRIL 24, 1932.**6WF—Morning Session.**

10.30—Sporting and news service from The Sunday Times.
11.0—A Baptist Service broadcast from the Central Baptist Church. Preacher, Rev. Harry Reeve; organist, Miss Edith Fox, L.A.B.
12.15—Close.

6WF—Afternoon Session.

3.0—Special presentation by world famous orchestras and artists.
4.0—Half an hour with absent celebrities.
4.30—Close.

6WF—Evening Session.

6.0—From Church of Christ, Lake Street. Children's Session conducted by "Uncle Charlie," assisted by the Tiny Tots' Choir. Choirmaster, Mr. R. G. Carter.
6.40—Short sacred recital.
7.0—Professor A. D. Ross, D.Sc.: talk, Climate and Man.
7.15—Orchestral interlude.
7.30—A Presbyterian Service broadcast from St. Andrew's Church.

A St. George's Day Programme featuring English music and excerpts from Shakespeare.

8.45—Overture: A Midsummer Night's Dream (Mendelssohn).
8.51—Gertrude Hutton, mezzo contralto: A Spring Song (Parry); I Know a Bank (Shaw) words by Shakespeare.
8.54—Leo Chase, violinist: 1st Movement (Andante) of Sonata in A Major (Handel).
8.57—A.B.C. Concert Orchestra: Henry VIII Dances (German).
9.7—Gertrude Hutton, mezzo contralto: Orpheus with His Love (Linley) words by Shakespeare.
9.11—Malcolm Dick, organist: Pomp and Circumstance March, No. 1 (Elgar).
9.15—Norrie Johns: Scenes from Shakespeare, Selection from Midsummer Night's Dream, Act 1, Scene 1. Characters introduced: Lysander, Hermia, and Helena.
9.23—A.B.C. Concert Orchestra: Merrie England Selection (German).
9.35—Gertrude Hutton, mezzo soprano: The Knotting Song (Purcell) words by Sir Charles Sedley.
9.38—Leo Chase, violinist: 4th Movement (Allegro) of Sonata in A Major (Handel).
9.41—A.B.C. Concert Orchestra: Incident music to The Merchant of Venice (Rossini).
9.51—Gertrude Hutton, mezzo contralto: Mark the Echoing Air (Purcell) from the opera The Fairy Queen: Gentle Youth, Ah tell me why (Ave).
9.55—Nelson Burton, cellist: Simple Melodization (Smith).
9.58—Norrie Johns: Scenes from Shakespeare, Selection from The Two Gentlemen of Verona, Act 1, Scene II. Characters introduced: Julia and Lucetta.
10.6—A.B.C. Concert Orchestra: Nell Gwynne Dances (German).
10.16—Gertrude Hutton, mezzo contralto: A Song of Autumn (Elgar) words by Adam Lindsay Gordon.
10.19—A.B.C. Concert Orchestra: Richard III (Humphries).
10.28—Features of tomorrow's programme.
11.0—National Anthem. Close.

6ML — SUNDAY
APRIL 24, 1932.**6ML—Evening Session.****PANATROPE RECITAL.**

7.0—Egmont Overture: Victor Symph. Orch.
7.8—Beloved, it is Morn: Marguerita, Carlotta, contralto.
7.12—Song Without Words in D: Pablo Casals, 'cello.
7.16—To the Forest: Peter Dawson, baritone.
7.20—Saschinka (Potpourri of Russian Gypsy Songs and Dances), Marek Weber and His Orch.
7.28—Love Come to my Aid: Marion Anderson, contralto.

7.32—One Lives But Once: Sergei Rachmaninoff, piano.
7.40—Mephistopheles' Serenade: Fernando Autori, bass.
7.44—Mors et Vita, Judex: New Symphony Orchestra.
7.48—The Holy City: Essie Ackland, contralto with organ.
7.52—Coronation March (The Prophet), Reginald Goss-Custard, organ.
7.56—Serenade: Aubade; San Francisco Symphony Orch.
8.0—Rose Softly Blooming: Florence Austral soprano.
8.3—Voice of the Bells (an Alpine Fantasy), Mayfair Orchestra with organ, bells, and male quartet.
8.7—Great God of Love: Glasgow Orpheus Choir.
8.10—Songs my Mother Taught Me; The Flight of the Bumble Bee: Pablo Casals, 'cello.
8.14—My Ain Folk: Marguerita Carlton, contralto with organ.
8.17—Allah be with us; How Many a Lonely Caravan: Peter Dawson.
8.22—Naila Waltz: Royal Opera Orch., Covent Garden.
8.26—Softly Awakes my Heart: Marion Anderson.
8.36—Kamenoi Ostrow: Reginald Goss-Custard, organ.
8.38—The Better Land: Essie Ackland, contralto.
8.37—Liebeslied: San Francisco Symp Orch.
8.41—Everywhere I go: Florence Austral, soprano.
8.44—At the Temple Gates: Mayfair Orch. with organ, bells, and male quartet.
8.47—Dim-ilt Woods: Glasgow Orpheus Choir.
8.50—The Daughter of the Regiment: La Scala Orch., Milan.
9.0—Watch Tower Programme. (1) Lecture by Judge Rutherford; (2) Short talk; (3) Answers to questions; (4) Vocal and instrumental items.
10.0—God Save the King.

6PR — SUNDAY
APRIL 24, 1932.

11.0 A.M.—Farmers' Session, market comments, music.
6.30 to 7.0—Children's session conducted by Uncle Peter.
7.0—Music.

6PR—Evening Session.

8.0—Mail Bright Aubade, Sheffield Choir. Capriccio, Kubalik. Quando a te tieta, la Fillesse, Puchmann. Casanova, Alcock. Concerto, Ivanhoe, Grenadier Guards Band. Life as You Heads, Sheffield Choir. La Capricieuse, Blinder. Pilgrims Chorus, Pattmann. Serenade, Friere, Cedric Sharpe. Pagliacci selections, Pitt and Orch. Sheik of Soats, Zomo Concert Orch. Arabesque, M. Billington. Weymouth Chimes, Royal Guards Band. Polichinelle, Amor ti vieta. Charles Hackett. Bronze Horse, Bournemouth Orch. Skellens and Rigaudon. Catterall. Ave Maria, Walton. Anitra's Dance, Col. Symp. Orch.
10.0—Close down.

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6WF — MONDAY
APRIL 25, 1932.**6WF—Morning and Midday Session.**

10.30—From the Esplanade, Perth. Special Anzac Service and description of the Grand Parade.
12.0—From the Studio: Health talk by Dr. E. M. Stang, School Medical Officer for the Public Health Department.
12.15—The mid-day musicale.
12.30—British Official Wireless and special news.
12.45—The West Australian news.
12.57—Produce market report and siding price of wheat.
1.0—Observatory time signal, Meteorological information and weather report.
1.2—The luncheon hour musicale, Radio rhythm.
1.20—Light classical selections.
2.0—Close.

6WF—The Radio Matinee.

3.0—Maori and South Sea Island melodies.
3.30—To-day's Feature Story.
3.40—Ballet and light orchestral music.
4.30—Close down.

6WF—Early Evening Session.

6.0—Goodnight stories by Uncle Bas.
6.25—Dinner music.
7.0—Weather and market reports.
7.5—The Daily News news service.
7.15—Talk by Professor R. G. Cameron, M.A.: Giants of Intellect. Series III—Confucius and the Examination System of 617 B.C.

6WF—Evening Session.

7.30—Special Anzac Service broadcast from St. George's Church of England Cathedral.
8.30—Grand Symphony Orchestra: 1812 Overture (Tchaikovsky).
8.36—Address: Reminiscences of Anzac.
8.56—Prelude: Le Reve Passe (Krier).
9.0—War-time play presented by the A.B.C. Players: The Mesh Road. Production, Paul Daly; direction, Harry Graham.
9.45—Musical reminiscences of the war.
10.15—Late weather forecast and announcements.
10.18—Specially selected reproductions.
10.55—Features of tomorrow's programme.
11.0—National Anthem. Close.

6ML — MONDAY
APRIL 25, 1932.**6ML—Women's Radio Session.**

11.0—Shopping Guide, orchestral selections.
11.30—Fox-Hoyt's Radio Club Session.
11.40—Music.
12.0—News service presented by The West Australian Newspaper Co.

6ML—Luncheon Session.

12.30 to 2.0—Orchestral, instrumental, and vocal music.

6ML—Afternoon Session.

3.0 to 4.0—Instrumental, orchestral and vocal music.

6ML—Early Evening Session.

5.45—Children's Session, by Aunt Jean and Uncle Eric.
6.15—Dinner Music.
6.45—Fox-Hoyt's Radio Club Session.

6.55—Dinner music.
7.15—News service presented by The West Australian Newspaper Co.
7.30—Dinner music.
7.45—Organ recital by Mr. James Miller, relayed from Hoyts Regent Theatre.

6ML—Evening Session.**SPECIAL WOOL SESSION.**

8.0—The Song of the Nightingale; The Serenade of Suzanne; La Scala Orchestra.
8.4—Ballet Music, Faust, 1st and 2nd movements; 3rd and 4th movements: Royal Opera Orch.
8.13—Templation (waltz): Mayfair Orch.
8.18—Dance of Seville: Bournemouth Municipal Orchestra.
8.22—Nights of Gladness (waltz): Mayfair Orchestra.
8.30—This week's new record releases.
9.0—Thirty Minutes for Diggers. Talk by Mr. C. Longmore.
9.30—Regimental March Medley: Grenadier Guards Band.
9.34—Old Comrades: Boys of the Old Brigade: Peter Dawson and male chorus.
9.39—Cello: Route Marchin': Peter Dawson.
9.43—Journey's End: Peter Dawson.
9.49—A Reve Passe: Peter Dawson and male chorus.
9.52—In Memoriam, Overture: New Symp Orchestra.

ORCHESTRAL SELECTIONS.

10.9—Monte Carlo Selection: New Mayfair Orchestra.
10.8—The Maid of the Mountains: London Palladium Orchestra.
10.10—The Yeoman of the Guard: Coldstream Guards Band.
10.24—Mikado Selection: Marek Weber and His Orch.
10.30—God Save the King.

6PR — MONDAY
APRIL 25, 1932.

11.0 to 1.0—Music.
6.30 to 7.0—Children's session conducted by Uncle Peter.
7.0 to 8.0—Music.

8.0—Special Anzac Day Service. Land of Hope and Glory, Grenadier Guards Band. Angels Ever Bright and Pure, Improvised. Evening Song, Goss Custard. Little Time, Adelphi Orch. Caprice Brillante, P. L. Clarke. La Cathedrale Ensloutie, Hambrook. Military March, Grenadier Guards Band. Concerto in G Minor, New Light Symp. Orch. Twilight Melody, Arthur Meale. Sound an Alarm, Francis Russell. Torna a Surriento, Florentine Quartet. March Salutation, Kazareth Hawkins. Clair de Lune, Percy Grainger. Midsummer Night's Dream, San Francisco Symp. Orch. Snowdrops, Brett and Rutherford. Melody in A, Spencer Shaw. Hallelujah Chorus, Black Diamonds.
10.0—Close down.

6WF — TUESDAY
APRIL 26, 1932.

6.0—The Radio Matinee.
3.0—Vocal and instrumental gems.
3.30—Today's feature story.
3.40—Melodies, Grace and gay.
4.30—Close.
6.0—Early Evening Session.
6.0—Goodnight stories by Uncle Bas.
6.25—Talk, sketch talks to members of the A.B.C. younger set.
6.35—Pinker Music.
7.15—Talk by T. Hunter-McCormie: The Art of Living. Why Worry?
7.30—Weather and market reports.
7.45—The Daily News news service.
7.55—What is on the air tonight.

6.0—Evening Session.
8.0—Overture: Dance of the Hours.
8.4—Special choral recital by the North Perth Choir, conducted by H. R. Hayward. North Perth Choir: Ours are Banks of Allan Water (Cornwall). Come where the Love Lies Dreaming (Jok).
8.12—Leo Chase, violinist: Adagio, Concerto G Minor (Brahm).

(Continued on Page 70.)

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2CO			535.7 metres 560 kilocycles 7500 watts	National Broadcasting Station, Relaying 3LO and 3AR, COROWA
7ZL			517 metres 580 kilocycles 3000 watts	National Broadcasting Station, Studio: Elizabeth street, HOBART
3AR			492 metres 610 kilocycles 5000 watts	National Broadcasting Station, Studio: 120a Russell street, MELBOURNE
5CK			472 metres 635 kilocycles 15 kilowatts	National Broadcasting Station, Relaying 5OL, CRYSTAL BROOK, S.A.
2FC			451 metres 665 kilocycles 5000 watts	National Broadcasting Station, Studio: 96-98 Market street, SYDNEY
6WF			435 metres 690 kilocycles 5000 watts	National Broadcasting Station, Studio: Hay street, PERTH
5CL			411 metres 730 kilocycles 5000 watts	National Broadcasting Station, Studio: Hindmarsh square, ADELAIDE
4QG			395 metres 760 kilocycles 5000 watts	National Broadcasting Station, Studio: c/o State Ins. Buildings, BRISBANE
3LO			375 metres 800 kilocycles 5000 watts	National Broadcasting Station, Studio: 120a Russell street, MELBOURNE
2BL			351 metres 855 kilocycles 5000 watts	National Broadcasting Station, Studio: 96-98 Market street, SYDNEY
6PR			341 metres 880 kilocycles 200 watts	Nicholsons Ltd., Studio: Barrack street, PERTH
7HO			337 metres 890 kilocycles 50 watts	Commercial Broadcasters Ltd., Studio: 82 Elizabeth street, HOBART
4RK			330 metres 910 kilocycles 2000 watts	National Broadcasting Station, Relaying 4QG ROCKHAMPTON
3UZ			326 metres 930 kilocycles 500 watts	Oliver J. Nilsen and Co., Studio: 45 Bourke street, MELBOURNE
2GB			316 metres 950 kilocycles 3000 watts	Theosophical Broadcasting Stn., Studio: 29 Bligh street, SYDNEY
5DN			312 metres 960 kilocycles 500 watts	Mume Broadcasters Ltd., Studio: Franklin street, Parkside, ADELAIDE
3BO			309 metres 970 kilocycles 200 watts	Amalgamated Wireless (A'sia), Ltd. Studio: Kangaroo Flat, BENDIGO
4GR			300 metres 1000 kilocycles 50 watts	Gold Radio Service, Studio: Rathven street, TOOWOOMBA
3HA			297 metres 1010 kilocycles 200 watts	Western Province Radio Co., Studio: 37 Gray street, HAMILTON
2UE			293 metres 1025 kilocycles 250 watts	Radio House, Studio: 617 George street, SYDNEY
5PI			288 metres 1041 kilocycles 50 watts	Midlands Broadcasting Services, Studio: Ellen street, PORT PHILL
2CA			286 metres 1050 kilocycles 50 watts	A. J. Ryan, Kingston, CANBERRA
2KY			280 metres 1070 kilocycles 1500 watts	Trades and Labour Council, Studio: Goulburn street, SYDNEY
3SH			277.8 metres 1080 kilocycles 50 watts	Swan Hill Broadcasting Co., SWAN HILL
7LA			273 metres 1100 kilocycles 290 watts	Findlay and Wills, Broadcasters, 67 Brisbane street, LAUNCESTON
2HD			270 metres 1110 kilocycles 200 watts	Airsales Broadcasting Co., Studio: Civic Centre, NEWCASTLE
2UW			267 metres 1125 kilocycles 1500 watts	Radio Broadcasting Ltd., Studio: Paling's Bldg., Ash street, SYDNEY
6ML			264 metres 1135 kilocycles 300 watts	Musgroves Ltd., Studio: Lyric House, Murray st., PERTH

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3YB			262 metres 1145 kilocycles 25 watts	Mobile Broadcasting Service, 430 Little Collins street, MELBOURNE
4TO			256.4 metres 1170 kilocycles 100 watts	Amalgamated Wireless (A'sia) Ltd., TOWNSVILLE
3DB			254 metres 1180 kilocycles 500 watts	SDB Broadcasting Station Pty., Studio: 86 Flinders street, MELBOURNE
4MK			252 metres 1190 kilocycles 100 watts	Williams' Agencies Ltd., Address: P.O. Box 165, MACKAY
5KA			250 metres 1200 kilocycles 300 watts	Sport Radio Broadcasting Co. Ltd., Studio: 81 Flinders street, ADELAIDE
2CH			248 metres 1210 kilocycles 1000 watts	Council of Churches, 147 York street, SYDNEY
2MV			246 metres 1220 kilocycles 50 watts	Moss Vale Broadcasting Service, Studio: North street, MOSS VALE
6KG			246 metres 1220 kilocycles 150 watts	Gutlands Broadcasters Ltd., Bourke street, KALGOORLIE
2NC			241 metres 1245 kilocycles 2000 watts	National Broadcasting Station, Relaying 2FC and 2BL, NEWCASTLE
3WR			238 metres 1260 kilocycles 50 watts	Wangaratta B'casting Pty. Ltd., Studio: Reid street, WANGARATTA
2SM			230.1 metres 1270 kilocycles 1000 watts	Catholic Broadcasting Co., Australia House, Carrington St., SYDNEY
3TR			234 metres 1280 kilocycles 50 watts	Gippsland Broadcasting Service, Address: P.O. Box 89, TRAFALGAR
4BK			233 metres 1290 kilocycles 200 watts	Brisbane Broadcasting Co., Studio: King House, Queen St., BRISBANE
3BA			230.8 metres 1300 kilocycles 50 watts	Barrat Broadcasters Pty. Ltd., C'wealth Bank Bldgs., Sturt St., BALLARAT
5AD			229 metres 1310 kilocycles 300 watts	Advertiser Newspaper Ltd., Studio: Weymouth street, ADELAIDE
2MO			226 metres 1330 kilocycles 50 watts	M. J. Oliver, Address: P.O. Box 78, GUNNDAH
2XN			224 metres 1340 kilocycles 50 watts	G. W. Exton, Address: P.O. Box 138B, LISMORE
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2XL			220 metres 1365 kilocycles 50 watts	Barrier Broadcast Ltd., Argent street, BROKEN HILL
4BH			217.3 metres 1380 kilocycles 50 watts	Broadcasters (Aust.) Ltd. Studio: 90-92 Queen street, BRISBANE
2GN			215 metres 1390 kilocycles 50 watts	Goulburn Broadcasting Co., Studio: Auburn street, GOULBURN
3GL			214 metres 1400 kilocycles 50 watts	Geelong Broadcasting Pty. Ltd., Studio: National Mutual Bldgs., GEELONG
2KO			212 metres 1415 kilocycles 200 watts	Newcastle Broadcasting Co., Studio: 57 Hunter street, NEWCASTLE
3AW			210.5 metres 1425 kilocycles 300 watts	Vogue Broadcasting Co. Ltd., His Majesty's Theatre, MELBOURNE
2WL			200.06 metres 1450 kilocycles 50 watts	Wollongong Broadcasting Co., Address: 149 Crown street, WOLLONGONG
2AY			203 metres 1480 kilocycles 50 watts	Charles Rice, Studio: 610 Dean street, ALBURY
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(Continued from Page 67.)

- 8.20—North Perth Choir: Soldiers' Chorus, Faust (Gounod).
 8.25—David Lyle, tenor: I Hear a Thrush at Eve (Cadman); When the Dew is Falling (Schneider); The Rose; The Musk (Jalowicz).
 8.33—North Perth Choir: Gloria in Excelsis (Mozart).
 8.38—Nora Coalstad, pianist: Rhapsody in E Flat (Brahms).
 8.46—Miss E. Nicholls and Mr. N. Perrin, vocal duet: When Day is Done (Lohr).
 8.51—North Perth Male Quartet: Melisandi in the Wood (Goetz).
 8.54—North Perth Choir: Sleep Gentle Lady (Bishop); London Town (German).
 9.0—Thelma Howard, soprano: Love I Have Won You (Ronald); Drift Down, Drift Down (Ronald).
 9.4—Leo Chase, violinist: Rondino (Kreisler); Hymn to the Sun (Korsakow).
 9.11—North Perth Choir: Largo, arranged by Fletcher (Handel).
 9.15—David Lyle, tenor: Obstinat (Fontenailles); Fleurette (McGeogh); I Only Can Love Thee (Hawley).
 9.24—North Perth Choir: Where my Caravan has Rested (Lohr); You Stole my Love (McFarren).

- 9.30—Nora Coalstad, pianist: Old Vienna (Godowsky); Arabesque (Leschetizsky); Sing a Song of Sixpence (Livena).
 9.37—North Perth Choir: Love is Meant to Make us Glad (German).
 9.44—North Perth Male Quartet: Lullaby.
 9.49—North Perth Choir: Song on May Morning (McBurney); By Babylon's Wave (Gounod).
 10.4—Late weather forecast and announcements.
 10.9—Musical memories of the past.
 10.55—Features of tomorrow's programme.
 11.0—National Anthem. Close.

6ML — TUESDAY APRIL 26, 1932.

- 6ML—Women's Radio Session.
 11.0—Shopping guide. Orchestral selections.
 11.30—Fox-Hoyts Radio Club Women's Service.
 11.40—Orchestral and vocal selections.
 12.0—News service presented by The West Australian Newspaper Co.
 6ML—Luncheon Session.
 12.30 to 2.0—Light orchestral, instrumental and vocal music.
 6ML—Afternoon Session.
 3.0 to 4.0—Orchestral and vocal selections.

- 6ML—Early Evening Session.
 5.45—Children's session by Uncle Eric and Auntie Laurel.
 6.15—Dinner music.
 6.45—Fox-Hoyts Radio Club Session.
 7.5—Dinner music.
 7.15—News service presented by The West Australian Newspaper Co.
 7.30—Dinner music.
 7.40—Interesting Features of Our City Buildings: talk by Mr. Trevor Lewis.

6ML—Evening Session. CLASSICAL PROGRAMME.

- 8.0—Tristan and Isolde: State Opera Orch., Berlin.
 8.13—My Lovely Celia: Dusolina Giannini, soprano.
 8.16—Romanza Andaluza: Albert Spalding, violin.
 8.20—Hamlet, Mad Scene: Eide Norena, soprano.
 8.29—Largo: Grand Symphony Orch.
 8.33—Desolation; A Dream of Spring (Songs from Chinese Poets): John McCormack.
 8.39—Minuetto from Suite: Ignaz Friedman, piano.
 8.43—Cibibiribin (Waltz Song), Lucrezia Bori, soprano in Italian.
 8.46—Brandenburg Concerto: Philadelphia Symphony Orch.
 9.6—Faust, Air des Bijoux: Mario Kurenko, soprano.
 9.10—Spanish Dance, Vito: Pablo Casals, 'cello.
 9.13—The Old Corporal: Theodor Chaliapin, bass in Russian.
 9.17—La Tosca Selections: Dajos Bela Or.
 9.26—Matinata: Aureliano Pertile, tenor in Italian.
 9.29—Fantasia: Dr. Harold Darke, organ.
 9.37—How Fair This Spot; To the Children: John McCormack, tenor.
 9.43—Cavatina: Albert Spalding, violin.
 9.47—Love Has Eyes: Dusolina Giannini, soprano in English.
 9.50—Cavalleria Rusticana: Grand Symp Or.
 9.54—Down the Petersky: Theodor Chaliapin, bass in Russian.
 9.57—Berceuse: Ignaz Friedman, piano.
 10.1—The Kiss: Lucrezia Bori, soprano in Italian.
 10.4—Chorale, Prelude: Philadelphia Symphony Orch.
 10.8—Un Bel di Vedremo: Maria Kurenko, soprano.
 10.12—Spanish Dance: Pablo Casals, 'cello.
 10.15—The Horn: Theodor Chaliapin, bass in French.
 10.19—Non Tamo Piu: Aureliano Pertile, tenor in Italian.
 10.22—Zampa Overture: Grand Symp Orch.
 10.30—God Save the King.

6PR — TUESDAY APRIL 26, 1932.

- 10.30 to 11.30—Women's session. Music.
 1.0 to 2.0—Music.
 4.30 to 5.30—Vogue Radio Hour music.
 6.30 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—Il Trovatore Selections, B.B.C. Wireless Symp Orch. Serenades, M. Hayward.
 8.15—Floral Dance, Peter Davison. Dancing Shadows, W. W. W. and Orch. Danse Negre, Cyril Scott. Scherzo, Budapest Quartet. Fille de Madame Angot, Goldstream Guards Band.
 8.30—Shell Company's Programme.
 9.0—Baccanalia, Finck and Orch. Orpheus With his Lute, Labbette. O April, John Ireland. Belk Across the Meadows, Mayfair Orch.
 9.15—Major Corbett's Address.
 9.30—Our District Visitor, Wish Wynne. Butterflies, G. Cassado. Popular Songs, Grenadier Guards Band. Everybody's Melodies, Leslie James. Come Silver Moon, Labbette and Eisdel. Serenade, Cherniavsky Trio. One More Day my John, Grainger. Lucille, Macintosh. The Barrister, Robey. The Skaters, Grenadier Guards. To Spring, Salmoud. Sons of the Brave, Sweetest Flower That Blooms, Thornton. Belle of New York Selections, Grenadier Guards.
 10.30—Close.

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6WF — WEDNESDAY APRIL 27, 1932.

- 6WF—The Radio Matinee.
 3.0—Comic opera, old and new.
 3.30—Talk by a representative of the Presbyterian Women's Missionary Union.
 3.40—Musical pot pourri.
 4.30—Close.
 6WF—Early Evening Session.
 6.0—Goodnight stories by Uncle Bas.
 6.25—Model Aero Club session, conducted by J. G. Paterson.
 6.40—Dinner music by Harris, Scarfe and Sandovers.
 7.15—Anita Fitzgerald, talk on English for this year's Junior University Examination.
 7.30—Weather report, market reports, and Stock Exchange information.
 7.45—The Daily News news service.
 7.52—What is on the air tonight.

6WF—Evening Session.

- 8.0—Recital by the W.A. University Music Exhibitioners. Betty Gravenall, pianist: Prelude to E Minor Suite (MacDowell). Phyllis Browning-Turner, contralto: There Stands a Fir Tree, Lenaly (Kivcr); Break, Break, Break (Walthew). Betty Gravenall, pianist: Gavotte (Chuck Brahm). Leo Chase, violinist: Grave (Bach-Kreisler); Cortège (Boulenger). Phyllis Browning-Turner: Sweet breathes the Linden Bloom (Savage). Raving in the Dew (Batterworth). Betty Gravenall: Polonaise in C Sharp Minor (Chopin). Leo Chase: Concerto in A Minor (Bach). Phyllis Browning-Turner: Roadways (Lohr); Trees (Shaw); A Birthday (Cowen). Betty Gravenall: Study in F Sharp (Arensky). Leo Chase: Preludium and Allegro (Kreisler). Phyllis Browning-Turner: Unmindful of the Roses (Tajour); O Ship that Sailest Slowly (Goleridge-Taylor). Betty Gravenall: Countess of Westmorland Gavotte (Shieff). Leo Chase: Serenade (Pierne); Le Printemps (Milhand).
 9.15—Talk by R. A. Jones: Julius Caesar, the Man.
 9.30—Gems from the Masters, with annotations by D. Heinrichs. Adagio Cantabile, Vivace Assai Symphony in G (Haydn). The Marriage of Figaro, and Batti, Batti, a bel Masetto from Don Giovanni (Mozart). Allegro ma non Troppo, Symphony No. 6 (Beethoven). Audante, Audante Pastorale, from William Tell (Rossini). Two Schubert Songs, The Wanderer, the Leiermann. Audante Cantabile (Tschaiakowsky).
 10.30—Late weather forecast and announcements.
 10.55—Melodies from many lands.
 10.55—Features of tomorrow's programme.
 11.0—National Anthem. Close.

6ML — WEDNESDAY APRIL 27, 1932.

- 6ML—Women's Radio Session.
 11.0—Shopping guide. Orchestral selections.
 11.30—"Favourite Songs" Interlude by Edna Curtis, soprano, accompanied by the Bechstein Wette Reproducing Piano.
 11.40—Music.
 12.0—News service presented by The West Australian Newspaper Co.
 6ML—Luncheon Session.
 12.30—Market Report, Orchestral, Vocal and Instrumental Music.
 6ML—Afternoon Session.
 3.0—Light orchestral, vocal and instrumental music.

- 6ML—Early Evening Session.
 5.45—Children's session by Uncle Eric and Auntie Laurel.
 6.15—Dinner music.
 6.45—Fox-Hoyts Radio Club Session.
 6.55—Dinner music.
 7.15—News service presented by The West Australian Newspaper Co.
 7.30 to 7.55—"Eye's Weekly Talk to Adam," Miss Nellie Stewart.
 7.55—Boys' Employment League Talk.

6ML—Evening Session. DANCE PROGRAMME.

- 8.0—Little Hunka Love: Why Shouldn't I? Hikin' Down the Highway (fox trot).
 8.10—When Your Hair Has Turned to Silver: The Delivery Boys, vocal duet.
 8.13—If You Can't Sing, Whistle: Slow but Sure: Sing a Little Jingle (fox trot).
 8.23—My Missouri Home: The Delivery Boys, vocal duet.
 8.26—It is destiny: This is Love: My Missouri Home (waltz).
 8.36—Would You Like to Take a Walk: Panachard Boys, vocal duet.
 8.39—There's No Other Girl: Live and Love Today: It's the Girl (fox trot).
 8.49—When I Take my Sugar to Tea: Panachard Boys, vocal duet.
 8.52—Marimba Melody: Memories of Italy: Gypsy Love Song (waltz).
 9.2—The Dear Little Shamrock: Frank Munn, tenor.
 9.5—If I Knew You Better: Us and Company: Readin' Rittin' Rhythm (fox trot).
 9.15—Little Town in the Old County Down: Frank Munn, tenor.
 9.18—To the Future: Sweet Jennie Lee: Give me Your Affection (fox trot).
 9.28—Butt me hawa: But Cause Quiver: 9.31—The Same as we Used to do: Just a Little While: Why Dream (waltz).
 9.41—The Wiggling Trail: Bel Gents Quartet.
 9.44—He's Not Worth Your Tears: Say Hello to the Folks back home: Can't You See I'm Lonely (fox trot).
 9.54—Ideal Types: Norman Long, inter-tainer at the piano.
 9.57—The Waltz Yes Saved for me: Dreamy Rocky Mountain Moon: Memories of Far Away (waltz).
 10.7—Hidden Heroes: Norman Long, inter-tainer at the piano.
 10.10—Yours is my Heart Alone: When Your Lover Has Gone: Have You Forgotten? (fox trot).
 10.20—Sally Horner: Ernest McKinlay, vocal.
 10.23—Little Sweetheart of the Mountains: When Your Lover Has Gone (fox trot).
 10.30—God Save the King.

6PR — WEDNESDAY APRIL 27, 1932.

- 10.30 to 11.30—Women's session. Music.
 1.0 to 2.0—Music.
 4.30 to 5.30—Vogue Radio Hour music.
 6.30 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—Martha Overture, Berlin Opera Orch. Last Rose of Summer, Gail-Cura. Goldstream Guards. Flight of the Bumble Bee, Pablo Casals. For You Alone, Rowland-Hins. M'Appari Tutti Amor, Charles Hackett. Miss Wonderful, The Ladies of Cadiz, S. Francis. Perchance, New Light Symp Orch. Polka de WR. Nachmaninoff. An Emblem, S. Corp. March aux Plantureux, Goldstream Guards Band.
 8.50—Norwood's Book Review.
 9.5—O Mio Formido, introduction and Allegro, Virtuoso Quartet. Samson Ago-

- nistes, Clifford Turner. Cloches de Cornville, Goldstream Guards. Souvenir de Vienne, Cyril Scott. Rogue Song, Shilkret and Orch. Bridal March and Finale, Marchant. Scherz Sing Song, Goldstream Quartet. Frivola, P. P. P. Victor Symp Orch. The Safe, A. Badgley. Popular Songs, McElroy, Tom Katz Band. Ballet Egyptian, St. Hilja Band.
 10.30—Close.

6WF — THURSDAY APRIL 28, 1932.

- 6WF—The Radio Matinee.
 3.0—Excerpts from the classics.
 3.30—Talk by a representative of The Women's Service Guild.
 3.40—With famous bands and orchestras.
 4.30—Close.
 6WF—Early Evening Session.
 6.0—Goodnight stories by Uncle Bas.
 6.25—Hal McKail talks to members of the A.H.C. Younger Set.
 6.35—Piano music.
 6.45—Leo Ryan: Sporting and Athletic Review.
 7.0—Dinner music.
 7.15—University Extension Lectures.
 7.45—The Daily News news service.
 7.58—What's on the air tonight.

6WF—Evening Session.

- 8.0—From 6WF Studio, Community Concert, conducted by Paul Daly. Artists: Lulu Potter, soprano; A. Fairly, alto; Northey, K. H. H. of June (Sander), solo; Corbin, thro the Rye; Star of Lark (Pence); Ben Davies, bass baritone; Captain Mac (Sander); Duke Jones West (Sander); The Gay Cavalier (Smith); The Nightingale of England (Phillips); W. Wilkins, violinist.
 10.0—Late weather forecast and announcements.
 10.55—Popular melodies.
 10.55—Features of tomorrow's programme.
 11.0—National Anthem. Close.

6ML — THURSDAY APRIL 28, 1932.

- 6ML—Women's Radio Service.
 11.0—Orchestral selections and shopping guide.
 11.30—Fox-Hoyts Radio Club women's service.
 11.40—Orchestral and vocal selections.
 12.0—News service presented by The West Australian Newspaper Co.
 6ML—Luncheon Session.
 12.30 to 2.0—Luncheon music.
 6ML—Afternoon Session.
 3.0 to 4.0—Orchestral, instrumental and vocal music.
 6ML—Early Evening Session.
 5.45—Children's session by Uncle Eric and Auntie Laurel.
 6.15—Dinner music.
 6.30—Dinner music and Fox-Hoyts Radio Club Session.
 7.15—News service presented by The West Australian Newspaper Co.
 7.30—Dinner music.
 7.45—Organ Recital by Mr. James Miller, relayed from Hoyts Regent Theatre.
 6ML—Evening Session.
 8.0—Winter Ball: Boston Symp Orch.
 8.4—Clog Dance: Pavilion Orchestra.
 8.7—Frühlingstimmen: Boston Symp Orch.
 8.11—Ball and the waltz Goldstream, Pavilion Orchestra.
 8.15—Shell Company's Entertainment.

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8.45—Caucasian Sketches. In the Mountain Pass; In the Mosque: National Symph Orchestra.
 8.53—Parted: Essie Ackland, contralto.
 8.57—Album Leaf: Renee Chemet, violin.
 9.0—The Garden of Allah: Peter Dawson.
 9.4—Morning, Noon and Night, Overture: H.M. Coldstream Guards Band.
 9.8—Down South: Eveready Hour Group.
 9.12—Moresque: Una Bourne, piano.
 9.16—Le Cygne: De Groot, violin, David Bor, piano, H. M. Calve, 'cello.
 9.19—Oh, How I Miss You Tonight!: John McCormack, tenor.
 9.23—La Fille De Madame Angot Selection: Coldstream Guards Band.
 9.31—My Bonnie: Down in Demerara: Stuart Robertson, bass baritone.
 9.34—Merry Widow Waltz: Sandy MacPherson, organ.
 9.37—Off to Philadelphia: James McCafferty, baritone.
 9.40—Whistling Rufus: Emile Grimshaw's Banjo Quartet.
 9.43—Down the Vale: Essie Ackland, contralto.
 9.47—Berceuse: Renee Chemet, violin.
 9.52—Star of the East: Peter Dawson.
 9.56—Pique Dame Overture: Coldstream Gds Band.
 10.0—Goin' Home: Eveready Hour Group.
 10.4—Bohemian Polka, No. 4: Una Bourne, piano.
 10.8—Londonderry Air: De Groot, violin, David Bor, piano, H. M. Calve, 'cello.

10.11—You Forgot to Remember: John McCormack, tenor.
 10.15—My Hero, The Chocolate Soldier: Sandy MacPherson, organ.
 10.18—Vilkins and His Dinah: Some Folks Like to Sigh: Stuart Robertson, bass baritone.
 10.21—Nautical Moments: London Palladium Orchestra.
 10.30—God Save the King.

6PR — THURSDAY APRIL 28, 1932.

10.30 to 11.30—Women's session, music, 1.0 to 2.0—Music.
 4.30 to 5.30—Vogue Radio Hour music, Fashion Talk for Ladies, by the Fashion House.
 6.30 to 7.0—Yalumba Wines sponsored half hour.
 7.0 to 8.0—Daily News news service.

6PR—Evening Session.

8.0—Lady of the Rose, Black Diamonds Band. Chorus of Dervishes, Heifetz. Love has a Song, Frances Alda. Herd Girl's Dream, Neapolitan Trio. Faust Selections, Apollo Orch. Valencia, Whiteman and Orch. Hungarian Rhapsody No. 2, Quentin Maclean. Andante, Pablo Casals. Nocturne, Oldham and Derek. Air from Concerto, Morini. Here we are, Weems and Orch. Carmen March, Matinata, Marilyn Waltz, Wiedoeft. Mad-

ame Butterfly, Regal Concert Orch. Serenade Hassan, B. Harrison. Here Comes the Show Boat, Drowsy Waters, Hawaiianians. Merrie England, Royal Air Force Band. Serenade, Kurenko. From the Canebrake, Sascha. Crazy Pirouette, Terence Casey. Coppelia Ballet. Classic Symph Orch.
 10.30—Close down.

6WF — FRIDAY APRIL 29, 1932.

6WF—The Radio Matinee.

3.0—Band music and rollicking ballads.
 3.30—To-day's Feature Story.
 3.40—Popular melodies.
 4.30—Close down.

6WF—Early Evening Session.

6.0—Goodnight Stories by Uncle Bas. and Concert by children of the 6WF Radio Club.
 7.0—Dinner Music.
 7.15—Russell Sandeman, racing acceptances and racing and trotting anticipations.
 7.30—Weather and Market Reports and Stock Exchange Information.
 7.45—"The Daily News" News Service.
 7.58—What is on the air to-night.

6WF—Evening Session.

8.0—Overture: Parade of the Tin Soldiers (Jessell).
 8.4—The Radiotomists. Arranged and produced by Harry Graham, supported by Dorothy Manning, soprano; Beryl Seward, entertainer; Harry Webster, comedian; Percy Newton, saxophonist; Isobel Reith, popular vocalist; Billy Edwards, entertainer; Phyllis Blott, pianist.
 10.0—Late weather forecast and announcements.
 10.4—National music.
 10.55—Features of tomorrow's programme.
 11.0—National Anthem. Close down.

6ML — FRIDAY APRIL 29, 1932.

6ML—Women's Radio Session.

11.0—"Shopping Guide," orchestral selections.
 11.10—"Foot Comfort," talk by Mr. G. Nelson.
 11.20—Music.
 11.40—Recipes, orchestral and vocal selections.
 12.0—News Service, presented by the "West Australian" Newspaper Co.

6ML—Luncheon Session.

12.30 to 2.0—Light orchestral and vocal music, market report.

6ML—Afternoon Session.

3.0 to 4.0—Light orchestral and vocal music.

6ML—Early Evening Session.

5.45—Children's Session by Auntie Laurel and Uncle Eric.
 6.15—Dinner Music.
 6.40—Dinner Music.
 6.45—Fox-Hoyt's Radio Club Session.
 6.55—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 Airs: International Nov. Orch.
 8.3—Love's Garden of Roses: Reginald Foort, Wurlitzer organ.
 8.6—What a Wonderful Wedding That Will be: Horace Heidt and his Orch.
 8.9—Mazurka; Polichinelle: Peter Bornstein, violin.
 8.12—Irish Jigs and Reels: Mayfair Orch.
 8.15—Ezywalkin's ringside boxing description relayed from Unity Theatre.
 8.45—My Heaven of Love: Del Staigers, cornet with band.
 8.48—Chanson: Reginald Foort, Wurlitzer.
 8.51—Golden Gate: Horace Heidt and Orch.
 8.54—Mazurka; Polichinelle Masette: Peter Bornstein, violin.
 8.57—Hornpipe: Mayfair Orch.
 9.0—Boxing description continued, from the Unity Theatre.
 10.30—"God Save the King."

6PR — FRIDAY APRIL 29, 1932.

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

4.30 to 5.30—Vogue Radio Hour Music.

6.30 to 7.0—Children's Session conducted by Uncle Peter.
 7.0 to 8.0—"Daily News" News Service, Dinner Music.

6PR—Evening Session.

8.0—The Gipsy Baron, Symph Orch. Hungarian Rhapsody No. 14, Mark Hambourg. Song of Songs, Richard Crooks. Dance of the Gnomes, Petri. Nocturne in E Flat, J. Menges. Down South Medley, Tom Katz Band. Harlequin, Peter Dawson. Meditation, Hubert Dawson.
 8.45—Gardening Talk by Mr. W. Dawson.

9.0—Dance Programme.
 10.30—Close.

6WF — SATURDAY APRIL 30, 1932.

6WF—Afternoon Session.

3.0—From Headquarters: Results of the first three events of W.A. Turf Club's meeting.
 3.7—From W.A.C.A. Ground: Description of the football match.
 3.40—From Headquarters: Running commentary of 4th event.
 3.47—From W.A.C.A. Ground: Description of the football match.
 4.30—From Headquarters: Running commentary of 5th event.
 4.37—From W.A.C.A. Ground: Description of the football match.
 5.0—From Headquarters: Running commentary of 6th event and complete resume of previous events.
 5.10—Close.

6WF—Early Evening Session.

6.0—Goodnight Stories by Uncle Bas.
 6.25—Dinner Music.
 7.20—State and Interstate Sporting Results.
 7.30—Weather and Market Reports.
 7.45—"The Daily News" News Service.
 7.58—What is on the air to-night.

6WF—Evening Session.

8.0—Radio Rhythm Rascals: fox trots, Yes Yes (Conrad); I Wouldn't Change You for the World (Newman).
 8.7—Vocal interlude.
 8.10—Radio Rhythm Rascals: fox trots, It Looks Like Rain; A Little Less of Moonlight.
 8.17—Brennan Park: Results of 1st and 2nd and running commentary of 3rd event.
 8.24—Radio Rhythm Rascals: fox trots, My Canary Has Circles; You'll be Mine in Apple Blossom Time.
 8.31—Vocal interlude.
 8.34—Radio Rhythm Rascals: fox trots, There's Nothing too Good for my Baby; A Faded Summer Love.
 8.41—Vocal interlude.
 8.48—Brennan Park: Running commentary of 4th event.
 8.55—Radio Rhythm Rascals: waltzes, When the Moon Comes Over the Mountain; Vienna, City of my Dreams.
 9.2—Vocal interlude.
 9.5—Radio Rhythm Rascals: fox trots, Little Secrets; I Miss a Little Miss.
 9.12—Vocal interlude.
 9.19—Brennan Park: Running commentary of 5th event.
 9.26—Radio Rhythm Rascals: fox trots, Two Little Blue Little Eyes; On the Beach With You.
 9.33—Vocal interlude.
 9.36—Radio Rhythm Rascals: waltz, While Hearts are Singing.
 9.43—Vocal interlude.
 9.46—Radio Rhythm Rascals: fox trots, When I Take my Sugar to Tea; Moonlight Swing Time.
 9.52—Brennan Park: Running commentary of 6th event.
 10.0—Late weather forecast and announcements.

10.3—Radio Rhythm Rascals: fox trots, Yours and Mine; Me.
 10.10—Vocal interlude.
 10.13—Radio Rhythm Rascals: fox trots, Dixiana; Trying to Forget.
 10.20—Vocal interlude.

10.23—Brennan Park: Running commentary of 7th event and complete resume of previous events.
 10.33—Radio Rhythm Rascals: waltzes, For You; You'll Find Your Answer.
 10.40—Vocal interlude.

10.43—Radio Rhythm Rascals: fox trots, Looking for the Lovelight; You Didn't Have to Tell me.
 10.45—Resume of today's race meeting at Headquarters.
 10.50—Radio Rhythm Rascals: Low Down Rhythm; Listenin' to the Violin; Beyond the Blue Horizon.
 10.57—Features of tomorrow's programme.
 11.0—National Anthem. Close down.

6ML — SATURDAY APRIL 30, 1932.

6ML—Women's Radio Hour.

11.0—Shopping guide, orchestral and vocal music.
 12.0—News Service, presented by the "West Australian" Newspaper Co.

6ML—Luncheon Session.

12.30 to 2.0—Vocal, orchestral and instrumental music.

6ML—Afternoon Session.

3.0 to 4.0—6ML Birthday Club Programme.

6ML—Early Evening Session.

6.0—Dinner Music, light orchestral, vocal and instrumental.
 7.15—News Service, presented by the "West Australian" Newspaper Co.
 7.30—Sporting Results.
 7.45—Music.

6ML—Evening Session.

8.0—Studio presentation of Shakespeare's rollicking comedy: "Twelfth Night." Pique Dame Overture, Act 1: Scene 1, The Duke Orsino's Palace. Scene 2, The sea coast of Illyria; Scene 3, A room in the Countess Olivia's house; Scene 4, The Duke's Palace. Entrance. Act 2: Scene 1, A street in Illyria; Scene 2, Kitchen in Olivia's house; Scene 3, The Duke's Palace; Scene 4, Olivia's garden. Entrance. Act 3: Scene 1, Olivia's garden; Scene 2, A sport; Scene 3, Olivia's garden. Entrance. Act 4: Scene 1, Before Olivia's house; Scene 2, A dungeon in Olivia's house; Scene 3, Olivia's garden.
 10.30—God Save the King.

6PR — SATURDAY APRIL 30, 1932.

10.30 to 11.30—Music.

1.0 to 2.0—Music.

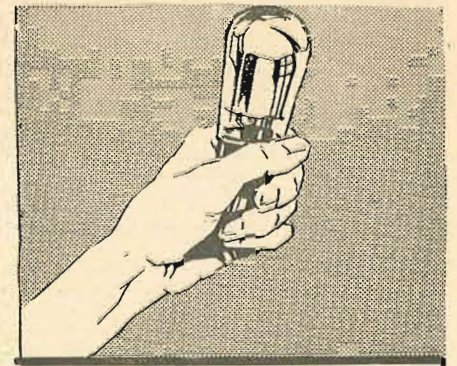
4.30 to 5.30—Vogue Radio Hour Music.

6.30—Children's Session, conducted by Uncle Peter.
 7.0—"Daily News" News Service, Dinner Music.

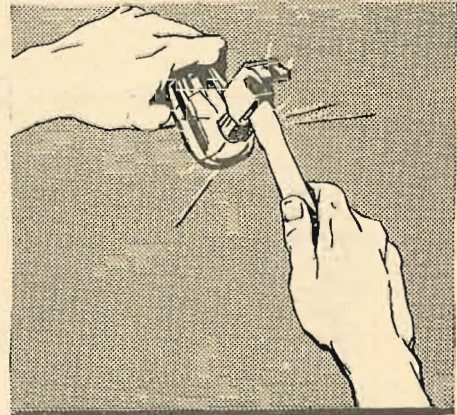
6PR—Evening Session.

8.0—Old and New, Finck and Orch. Barea-rolle, Baillie and Walker. Rhapsody in E Flat, Moiseiwitsch. Poem, Isolda Menges. I'm Happy when I'm Hiking. Tom Jones Selections, Grenadier Guards Band. Fenille d'Album and Papillon. De Greef. Ashes of Dreams, Davies. Trees, Shilkret and Orch. Musette. Pablo Casals. Sunny Selections, Savoy Orpheans. I Love to Hear You Singing, Crawford. The Tale of Paris, Billy Williams. Memories of Home, Neapolitan Trio. Sally of My Dreams, Pollack and Park Orch. Anvil Chorus, Pryor's Band. Dorothy, Banta. Toy Symphony, Victor Concert Orch. I Search for Thee in Every Flower, Wilde. Washington Post, Ditchman. Devon O Devon, Dawson. Song of the Flame.
 10.30—Close down.

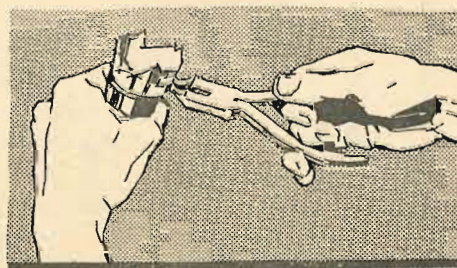
A Recipe for Using Cheap Radio Valves.



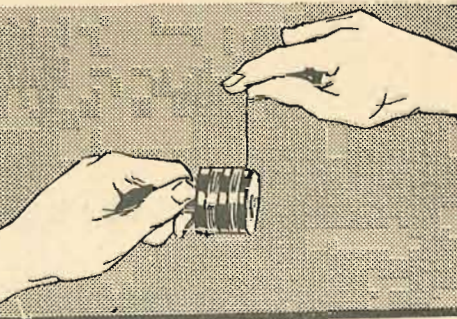
GRASP THE VALVE FIRMLY BY THE BASE AND —



GENTLY TAP IT WITH A TACK . OR SLEDGE . HAMMER



NEXT REMOVING THE RAGGED EDGE . FINALLY WIND



WITH 28 GAUGE WIRE AND USE FOR SHORTWAVE COILS (BY PHILIPS)



Willard Batteries
For Radio!

Willard Batteries
Prices Reduced!

AUTOMOTIVE ELECTRIC CO.

DIVISION: ATKINS (W.A.) LTD.,

Willard Service Station — 472 Murray Street, Perth.

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

Home Lighting.

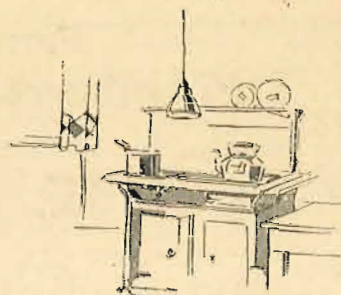
Economy and Care of the Eyes.

Living as we do in an enlightened age is it not remarkable that we have not studied one of the most important features of better living conditions to a greater degree, whilst in other ways improvement is evident in the greatest detail. It is home lighting to which I refer and this is a subject which affects a major portion of our existence.

A great deal of consideration is paid to the furnishing of the modern home, yet how often is lighting relegated to a position of unimportance. We are apt to discard lighting in the scheme of every room to see by. Do we really see by it properly? That is the question. The eyes may become accustomed to glaring lights after a long time but, although not apparent, the strain which weakens the sight at an early age is still there, and eventually the

use of glasses will result even for those with the strongest of sight.

The plea for better lighting is made for economical reasons also. Correct lighting does not mean more intensity but rather the use of the right types of lamp for the many and varied purposes for which they are required. The effect of good lighting is to beautify the home also, and the following information will make clear how with a little study of the essentials great im-



The use of a "pot peerer" over the stove is essential for better cooking.

provements can be made at little, if any, extra cost.

The first fundamental of good lighting is the correct use of lamps which is even more important than the selection of fittings. The practice of using clear lamps in open shades is a most serious fault and a common one. The brilliance of a naked filament should never be allowed to reach the eye—clear lamps are solely for use in enclosed or inverted fittings where the lamp itself is not visible.

That is why lamps such as Arlita pearl and Argenta opal are provided. Those are the ones to use with silken shades or reflectors.

The question of wattage is one which must be seriously considered according to the size of the room which is to be illuminated and the type of fitting to be used.

For Tea-Stained Linen.

Tea stains on the linen are always a trial, and here is a hint that is worth while bearing in mind. When sorting out the laundry put aside all table linen that is badly stained, and rub on the marks a little glycerine and yolk of egg (mixed in equal parts) before you put in the wash tub. Glycerine alone is good, so try it first, and if the marks are obstinate, then try the addition of the egg yolk.

The Bigger Family.

The Bigger family was composed of Mr., Mrs., and Jack. Who was the biggest?

Answer—Jack, because however his parents were, he was a little bigger.

Mr. Bigger died. Who was the biggest then?

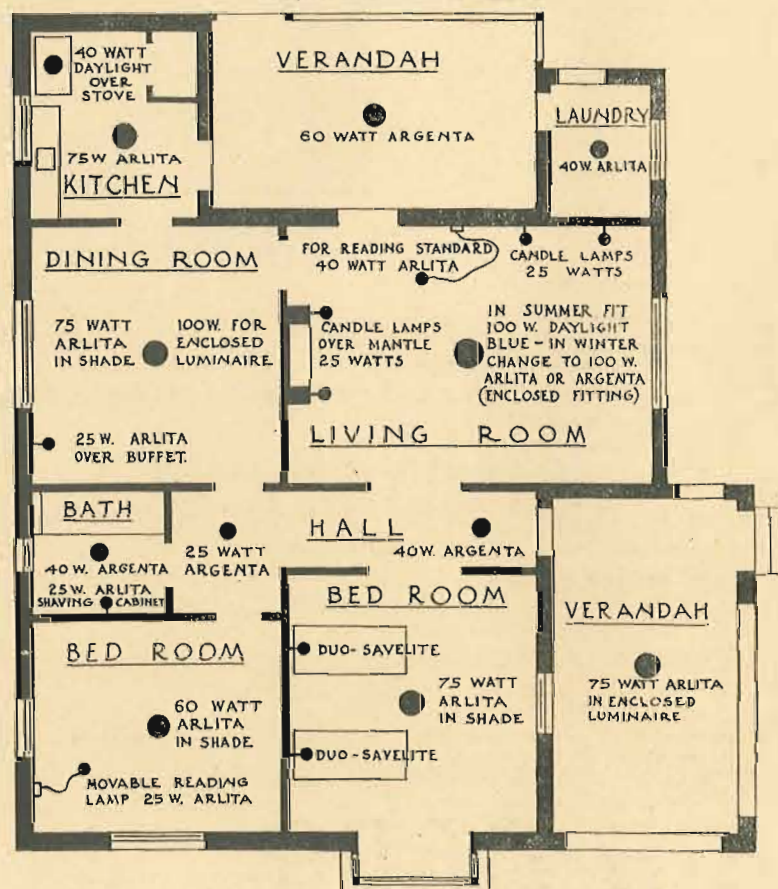
Answer—Mrs. Bigger, because Jack was fatherless (far the less).

Mrs. Bigger married again. Who was the biggest then?

Answer—Jack, because although his mother's name was changed, he was still Bigger.

—Sent in by Frances Nicholson.

HOW TO LAMP THE HOME. WITH PHILIPS LAMPS.

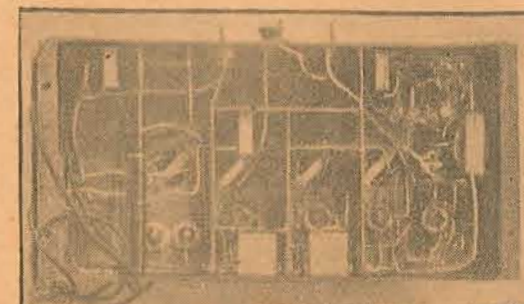


Good lighting is the least expensive of home comforts and often costs no more than bad lighting. The difference mainly lies in using a certain amount of current in the right way instead of wasting it in the wrong way.

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

The Unbeatable Distance Getter—

The "AIRZONE" SIX



You will see many fine Receivers at the Radio Exhibition, but remember, you cannot judge on appearance alone! It is performance that counts, and before you decide on your new set, we specially ask you to allow us to demonstrate this remarkable

"AIRZONE" DISTANCE SIX in your own home.

Try any you wish, but don't miss hearing this.

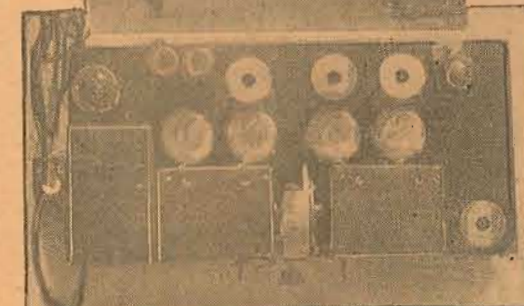
Price Complete, £39.

THE NEW 1932 "AIRZONE" FOUR

is the Ideal Local Reception Set, and under favourable conditions is, in many places, bringing in the East.

In Full Console Cabinet, with Full Powered Dynamic Speaker

£29/10/-.



"THE AIRZONE CUB"

This is the most powerful Little Three on the market, with tone like a Carillon Chime. The lowest priced Mantel Model and value extraordinary. Dynamic Speaker, fed from a Power Penthode. (See the report of Eastern State reception on this Set in this issue.)

Price Complete, £15.

Terms Arranged To Suit Your Convenience.

3 Variable-Mu S.G. Valves, S.G. Detector, and Power Penthode. 6 Valves, including Rectifier. Chassis complete with Valves and Moving Coil Speaker, £29.

Complete in Cabinet shown, £39.

For Player Pianos, Pianos, Musical Instruments, Player Rolls and Records for your Phono-Radio or Phonograph, Visit Our Show Room.

MORRIS BROS.

Right Opposite Hoyts "Regent" Theatre in William Street, Perth

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

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 Announcer 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. Urquhart, one of the station engineers, attending to the relaying apparatus. No easy chairs on this job. Four hours on a sloping galvanised 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 hauled themselves to the highest point of vantage, from where they had a bird's eye view of the course.

A Floating Transmitter.

Prof. Moltschanov, 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 licenced 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 1932 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 valver, 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, 2BL, 2GB, 2KY, 2UW, 2UE Sydney, 2NC Newcastle, 2AY Albury, 2MO Gunnedah. Victoria—3LO, 3AR, 3DB, 3KZ, 3UZ Melbourne, 3BA Ballarat, 3WR Wangaratta, 3TR Trafalgar, 3GL Geelong, and experimental stations 3EF Elwood and 3KU.

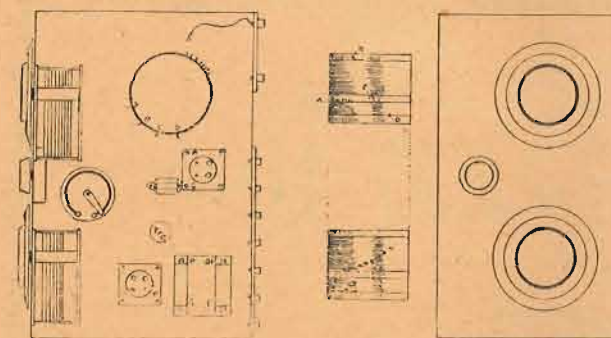


DIAGRAM 2

South Australia—5CK, 5AD, 5KA, 5DN.

Queensland—4QG, 4BC Brisbane.

West Australia—6WF, 6ML, 6PR.

New Zealand—1YA Auckland, 2YA Wellington, 3YA Christchurch, also KZRM Manila 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 Reinartz 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. Pelling. The layout is shown on the diagram 2, as is also the position of the windings on the coil formers. Any good transformer with a ratio of 4 or 5 to 1 can be used in the audio stage. A 60-volt battery for the H.T. will be sufficient and three dry cells will be needed to supply the current for lighting the valve fila-

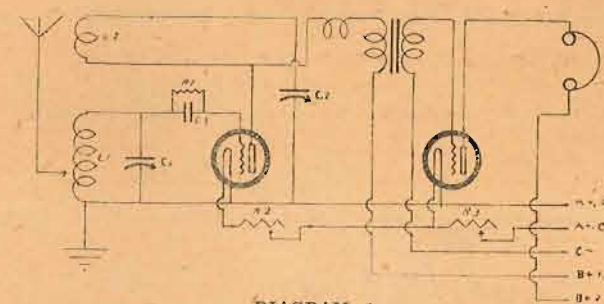


DIAGRAM 1

ments. The set is designed for use with headphones and the stations brought in by Mr. Pelling were all at excellent phone strength.

C1 .00035 variable, C2 .00025 variable, C3 .0002, R1 5 meg G.L., R2 30 ohm rheo baseboard mounting, R3 30 ohm rheo panel type.

L1, 55 turns DSC wire tapped at 3, 6, 9, 12, 15, 20, 25, 30, 40 from earth end. L2, 35 turns 32 DSC wire wound in same direction.

Former bakelite 3 inches diameter 2½ inches long, and the windings are approximately ¼ inch from ends with ¼ 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 switches 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 volts should be adjusted for smooth regeneration.

The components necessary can be obtained from either Boans Radio Department, Craig's, Pidgeon'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 turpentine will not do.

Aluminium can be satisfactory soldered as follows: A special solder is used for the purpose and this is made by first melting 4 parts 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 fairly hot 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.

WATERMAN'S "CHAMPION" RADIOS
THE LEADERS OF THEM ALL — SUPER SETS BY "AIRZONE."

See the Special Radio Display in our Windows during
Exhibition Week.

Demonstrations Gladly Arranged In Your Own Home.

The Easiest of Easy Terms Arranged With Pleasure.

SEE, THEN HEAR, THESE SUPER SETS AT SENSIBLE PRICES.

D. WATERMAN and SON

137-139-141 WILLIAM ST., PERTH — NEXT TO ROYAL HOTEL — (Phone B 6997).

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

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

NOW AVAILABLE IN
AUSTRALIA!

The Famous

G.E. Radio

With A.W.A. Circuit.

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.

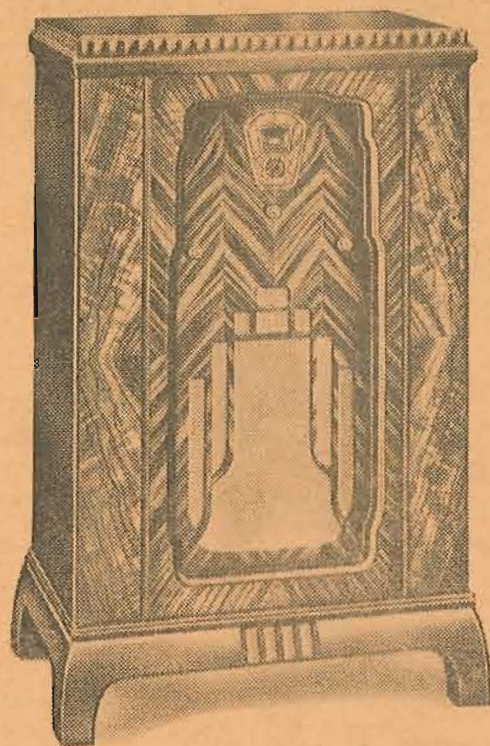
With the advent of the new and undoubtedly revolutionary G.E. Radio Receivers you obtain a reception that is vital and real—not a pale counterpart version of the living original.

It shows ultra-selectivity—both "A" and "B" class stations can be tuned in on almost a hair line point on the dial, and they are without interference. Marked sensitivity, gives good interstate reception.

Elimination of cross talk and modulation hum is achieved by employing the new variable MU Radiotron 235, which completely counteracts boominess and fuzziness 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.



The  6 Valve

PRICE:

£37-10-0

Other Models
include:—

4 Valve (including
Rectifier).

Mantel 4.

Phono-Radio 6.

Battery-Operated 7.

ATKINS (W.A.) LTD.

MAZDA HOUSE

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 Nel, Dad and Mum, and all the Kids,—

I'm jest ritin ter let yer noe abart me visit ter Perf. Let me tel yer Pop, this ere sity aint noe ordenery towne and everybuddy seems so freendli to yer, altho evryun seems ter be broke, they afluss takes a delite in showing yer round, and they aint even tried to sell me the nu Kommonwealt Bank blding. O Yias and wile I finks of it, i wos taken to the wireles exybishion tother nite and i wisht yer could a all been their. I larned a terrible lot abowt elektriks and sore things i never noo eksisted. Quer kritters, these radeo sailsmen, nuthin seems too be a trubble to em. They eggsplanes everthin to yer free gratis and fer nuthin, but som of em is inklined to exagerait like Rube Benlie dos down ome. They tries ter tel me that eletrik plate was not a thing yer eats orf, but i dont berleve em, deryew. all the eletrikal ferns ad stawls ther wif radeo and orl things wat goes by elektrikisity, but they never ad any eletrik trams ther, i suppose that was berkoss it were a silent exybishion. The furst stawl i coms up ter was Carlyles. Ow are yer mr Carlyle i arsts, im not mr carlyle he ses, i'm representin the ouse of a 1000 radeo parts O i ses sorry like, what appened to it, why nuffin he anser, well i arks why dont yer av it klened up, but my dere felloe he ses familiar like, it dont need klening. O i replis orl i ken say it sum folks is easi satisfied and goes ter pas on. Old he ses, av yer sene the nu Dimond batries, no i anser av you wi sertenly he ses im the sailsmen of em, O thats orl rite i replis i noe yer kant elpit, yer looks onest enuf ter me are yer a good sailsmen I arsts im, i ope so ses e yer see sailsmen run in my famerlie Go on i ses well i dont blame em, now e kontinued not notisin me littel joak thees are the veri latest tipe of dri batterie are they amerikan i arsts, no he replis theys Orstralian, then why are they dry I arsts. look he replis, what der yer suppos wud appen if i arst pepple orl sorts of questions like that, Yer mite be able ter answer som of mine i ses and warks ont. The next stawl i coms ter was Arringtons, is mr Arrington abawt i arsts, no ses the young felloe kawled Sidney, after the bridge, is there anyfink i kud do for yer, well i arsts wat are yer representin Rakerfone radeos he sed, ar them the fokes that makes the torkeys ses i yus ses he av yer erd em, too rite i anser but thats orl rite I fergive em, i wont tell anybudy, is that so e replied larfing, but i still dont see wat e as to larf abowt. Then i went to another stawl were they wus desplain Airzone radeos. jest as i was avving a look the felloe standin beind the radeo ses ter me pardin me man but did yer ever ere this radeo befor me, i dont noe ses i, wen did yer first ear it, O replis e i didnt mean that i ment ave yer ever erd this radio standin befor me well i ses i dont ever remember standin befor yer. Anyway he ses wether yerve erd it or not its the finest radeo on ther market, i'll take yer word for it he anser. thanks ses e im sorri i kant turn it on, thanks ses i but i ad a drink afore i cum in. Nice

chap e wos. Wen I cum to the next bloke i ses are yer seing radeos to, yus he anserd, ow did yer gess. Ow cum i arsts that yer av so many radeos ere. Fono-grafslimited ses e yes i anser they must be, havnt seen one yet. Nice plais yer got ere i ses O e replied this is onli a stawl well i anser smart like i dont see wot yerve got to stawl abawt with so mush kompetetion, wud yer like to peruse the nu Radeolar e arsts me i dont no i ses but i'll have a look at it Okay ses e, real amerikan like and i looks it over well i ses after a wile i cant see anyfink rong wif it, no he anser of korse yer cant, there aint anyfink rong wif it, well i ses i was rite wasnt i, yer were he admits. yer the sailsmen i arsts yes ses e, the bloke they kawled Artchey and now if yer wil step inside i ken show yer som with iluminated dials, wat sailsmen ses I, no radeos ses e. Now e kontinued put yer ear up klose to this ere Wireles Nus piller and ear the musik, O no yer dont i ses and get orl water in me ear, i been kort that way befor, and i passes on. Yerve erd of Nikelsens wel they ad a stawl there and wot der yer think they ad in it well i'll tel yer—more radeos, i wos just gointer pas on wen the sailsmen stops me and gives me a orlful frite dont i noe yer he arsts i dont no i anserd, well were av yer sene me befor he arsts. I look ard at him and seeln as ow is clothes was veri shabby I arsts im if he was a bank teller, but he sed he wasnt, but he ses we have gold standard ere in radeo. O ses i, yes ses e, Im representin Nikelsens and the famus Vogue radeo, well i aint no lover of fashions ses I and mizzled orf. Ello I ses to a young felloe at Aktins stawl ello ses e were andling the Troubadour, why ses i wats he done, nuffing ses e ere it is ses e pointing to a radeo set thats the Troubadour O I replis i thort yer was torking abawt Ruben betts, o but a koss it was the listeners wat andled im. I then went an ad a look at 6WF's mikerfone and I ses to a chap standin ther are yer the anowner and e ses no i aint, thats orlrite i ses i wasnt goin to urt yer. He ses thats Porl Daily standin ther, but dont tel im i told yer, I as a tork ter Porl and was veri surprised, he seemed quite intelligent. Yer no dad thes radeo anowners aint really silly at orl, its onli the way they tork. At another stawl a bloke ses would yer like to have a look over the Ritz, I thort he ment the big pub but it was another radeo set, and a peb to. At another stand i sore a thing with more wind than an insurance agent, the only difference was yer cud turn the Silovack orf like yer cant do the agent wat cumms up ome, they too ad some sneezer radeos, wif the name Beal and anoffer ell of a name attached to it. At Musgroves stand a felloe arsts me if I tried the latest soupa, I ses no we allus stuck to tomarter soup at ome, any ow if id wanted it ther wus no chance of gettin any with the crowd round that stawl. Well thers a lot mor I cud tel yer but the ink pot lik the dam at omes gone dry, so i'll tel yer more wen I get ome. Yours in aste,

SILAS.



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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 witticism that infects not only his listeners but artists and those at the studio. His items too 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 poor little crabs in Sydney Harbour from having nippers." I venture to say that the community nights from 6WF would be very flat without 'Paul, The Tonic' to pep 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 valves 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 fit a trap, you will probably be able to get this station well on this make of set in the winter months. It is, anyway, well worth trying, considering the results obtained with such a small aerial screened 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, Midday Session 6WF 4/4/32, to the effect that A Class Stations here 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 Questionnaires 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 30703.

* * *

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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Those who have not yet tried—

DELICIOUS
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Have yet to enjoy W.A.'s Choicest
Tomato Products.
No Preservatives.

Be SURE You GET



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The Hall Mark of Quality and
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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 "Impex" Batteries.—The Bairds Co. are fortunate in having the distributing rights of the famous Dutch "Impex" 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 60 volt Dutch "Impex" batteries in constant use on a three valve short wave receiver for 15½ months, and even when discarded there were no dud cells in the batteries. They were only the ordinary light duty type and considering that they were used with a set using pretty hungry valves, it speaks volumes for the quality of "Impex" 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 building, 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 or Eastern State 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 Flash" is their motto and if your set develops trouble that is how they will right 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 springs 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 first as you enter the Exhibition, on your right hand side as you go in. Stand No. 12, Buhlers 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. Ureghart, radio and electrical specialist, well known at the Port 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. F. 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 considerate attention to every client that this house has such a following in the musical world. Whether you are seeking a player, a piano, 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 Stromberg 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 Musgroves 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 supreme 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 Amazing Mazda 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.T.C. 1932 model radios are being shown.

Carrick's Radio Store.—Right in the centre of the city in Brennan'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.

Weldon 1932 Models at Craig's, William Street.—Messrs. Craig & Co., the pioneer radio firm of Perth, have just opened up the latest models of Weldon Radio Receivers. In the Eastern States these new receivers have proved

"ONE SHOT GETS THE LOT!"

To kill Flies, Mosquitoes, Moths, Silverfish, Ants, Bed Bugs, Fleas and Cockroaches—

Use **JOHNSON'S ONE SHOT SPRAY**

CHEAPER AND BETTER ————— 13oz. BOTTLE, 1/6.

If your storekeeper can't supply, get it from MESSRS. HARRIS, SCARFE LTD., HAY STREET, PERTH.
IT'S A WEST AUSTRALIAN PRODUCT.

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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 realise that the margin of profit on sets of such high standard at 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 furnishers 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. Radiotron 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 Fada Radio Co. of America have just put on the market there 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 laying out 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 or 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 3, at 8 p.m., the Guildford Juvenile Choir, of 60 children, under the conductorship of Mr. C. L. Jenkins, will give a recital of Choral music, including unison and two-part songs by classical and modern composers, negro spirituals, and folk songs. The assisting artists will be Margaret Sharp (violinist), Phyllis Browning-Turner (contralto), Doris Pearcey (pianist), Theo. Meugens (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.

Records For Your Phono-Radio ?

and Phono-Radio Notes.

BY CLEEDE



Maori Music.

WHEN years have passed away and fusion of races 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 capacity 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 hymns, and in these it is fascinating to observe the variations of harmony and time. They have also developed simple tunes that charm the ear and haunt the memory.

Around the shores of Lake Rotorua, 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 Whaakaue, who live in the little village of Ohinemutu, near Rotorua, 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 Rotorua Maori Choir. It can be asserted with confidence that nowhere in the world today could be found a choir capable of more perfect melody.

These recordings which Columbia made at Rotorua 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 Pare Ra (Warriors' Departure)** (Hon. Sir Apirana Ngata, LL.B.)
Haere Tonu (War Song) (Hoben and Horne). With piano accompaniment. Rotohiko Haupapa and Rotorua Maori Choir.
- D052 **Karu Karu (A Fishing Chanty)** (Rt. Rev. F. A. Bennett)
(a) **Te Ope Tuatahi** (Paraire Tomoana); (b) **I Runga O Nga Puke** (Rt. Hon. Sir Apirana Ngata, LL.B.) (Marching Songs).
- D053 **Hoea Ra Te Waka (Canoe Poi Song)**
Haere Haere Ra E Hine (Hinemoa Poi Song) (Paraire Tomoana).
- D054 **Pokarekare (Maori Love Ditty)**
Te Taniwha (Maori Love Ditty)
- D057 **Titi-Torea (Musical Game)**
E Hara Te Waea (Love Never Dies)

D058 (a) **Huri Huri**; (b) **Haere Atu Ra (Maori Love Ditties)**

(a) **Hoki Hoki**; (b) **E Hine E Hoki Mai**; (c) **Toia Mai Te Waka (Maori Love Ditties)**.

D059 **Matangi (I Grieve for You).**
E Hotu Nei (I Long for You)

D060 **Makurikuri (Marui Girl)**
Moe Mai E Hine (Maori Lullaby)

There is also a remarkably fine duet by Maori singers, "Ee Parere Ra," recorded by Parlophone, and this is one I would strongly recommend you to get. Both Morris Brothers and Musgroves have it in stock. All the Rotorua Maori Choir records mentioned and others are carried by Phonographs Ltd. Another particularly fine Columbia recording is an organ solo by Reginald Foort, "By the Blue Hawaiian Waters." If you are fond of male voice concerted items, get Columbia's recording of "Carry me Back to Old Virginny" by James Bland (04215). In Regal a very fascinating Negro spiritual recording is "Climb up Ye Children Climb" and on the reverse "Ella Lee." There is some particularly fine banjo work in this record. In Columbia I heard two beautiful records by the Choir and Chorists of St. Andrew's Cathedral, Sydney—DOX201, "As Pants the Hart" and "Oh for a Closer Walk with God" 6/-; and DO391 (4/-) "Lift Thine Eyes" and "Oh Lovely Peace."

Pepe Romeu 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 pianissimos with admirable effect. Romeu's songs are "Ay, Ay, Ay" and Toselli's "Serenade." Columbia DO341.

Now here are some others that we heard at Musgroves 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 albums from £2/12/6 down to really good records costing only 2/-, the new Summit records.

* * * Brunswick.

50077 **Mon coeur s'ouvre a ta voix (Softly Awakes my Heart)** Samson et Dalila, sung by Sigrid Onegin, contralto.

Chanson Boheme, Carmen. Sung by Sigrid Onegin.

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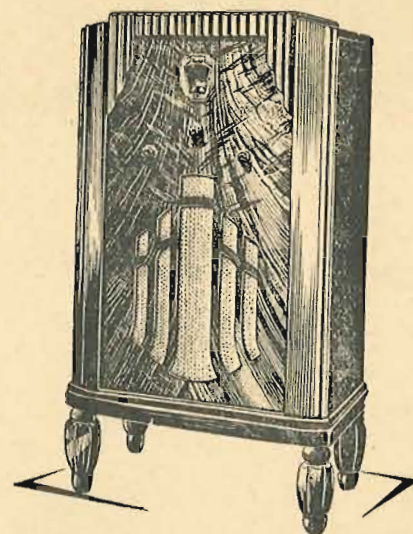

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Regal, 21240 (2/6)—Life is Just a Bowl of Cherries, and This is the Missus. Fox trot and vocal chorus by Sydney Kyles Orch.

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With home-made phono-radios there is sometimes a background of "dithering" and "chattering" which makes 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 yards round the grooves of a single record. An illustration of this was shown as it appeared under a microscope. Stick to the makers' instructions and use them once only.

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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 Gardam & Co. and hear the Whiting. It is a beautifully balanced little instrument and capable of great volume and the price is certainly attractive. Boans 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. Boans 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 loud 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 loud needles gives better results than using a loud 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 evolving a filter to eliminate this frequency—once 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 impair 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 "peaky" on the higher frequencies.

A pick-up of this type is not difficult to deal with, because it is an easy matter to connect a resistance across its terminals and so 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 fitted.

But there is no reason why the tone control should not serve both for radio and gramophone, provided it is borne in mind that it must be variable.

You see, one of the advantages of a pentode is that it balances up any loss of high notes due to sharply tuned H.F. circuits. In many cases it is absolutely essential to cut off side-bands 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 9560 miles away. The remaining records were retained by the E. H. Scott Radio Laboratories Inc., where they are played for visitors.

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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 much the same manner as cinematograph films are circulated. Little we knew how close this development in broadcasting 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. Fenton, 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 or a whole programme is electrically recorded by the Blattnerphone, in much the same way as records are made, except that instead of a disc the recording groove is made on 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 programme 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 save 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 land line 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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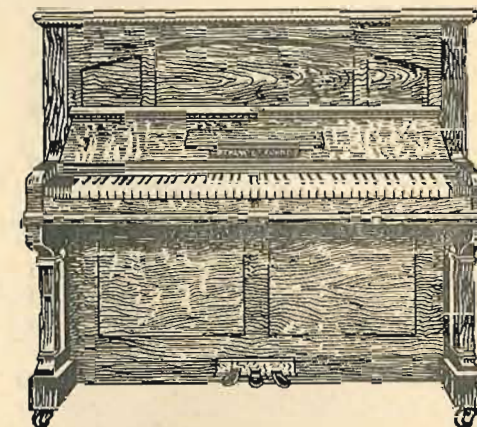
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PAUL GRAENER.

MODERN GERMAN COMPOSER.

Herr Paul Graener is 60 years of age, and occupies the honoured 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 Salzburg Mozarteum, 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 Brachvogel.

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 textures 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 short 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 1728), and an early harpsichord, loaned for the occasion by Princess Alice.

Crude 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. Nearby 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 Strothford Case," and Oscar Wilde's comedy, "The Importance of being earnest."

The extra season being given by the Repertory Club is the hilarious farce, "Baa, Baa, Black Sheep" (by Ian Hay and P. G. Wodehouse), on April 14, 15 and 16. Miss Joan Good, as Chickie Bluff, and Mr. Norman Wingrove, as the young airman, Hugo Bonzer, 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. Two of the best known of his symphonies, the "London" and the "Clock," will be performed, in addition to the famous "Emperor" quartette and arias from the creation, with orchestral accompaniment.

"FOLK-SONG STORIES."

The "Standard Book of Traditional Songs and Tunes for Little Folk," by Mrs. Murray MacBain, 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 rustless 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 **Goddard's** own **composition**.
Our pitch forks will give you the right **pitch**, like any tuning fork.
Our mincing machines are unequalled for **Chopin**.
Our brooms may be had with or without a **Handel**.
Our floor polish is a fine **Stainer**.
Our blind, picture and sash **chords** are **treble lines** which householders should **note**.
Our feather beds **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 **crotchets**, their **technique** is excellent, and their **performance** is in good **time**.

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

Professional Cards.

Miss Florence Hodd,

L.R.A.M. (London)
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VLASIO J. ZANALIS.

Miss Gertrude Hutton,

Pupil of Madame Estla D'Argo, London, and
Madame Gilly, Paris.
TEACHER OF SINGING AND VOICE PRODUCTION
will commence tuition at 31 Havelock Street, West Perth,
on February 17th.
Prospectus on application after February 15th.

NEWS AND NOTES.

The many friends of Miss Veronica Lake, Mus. Bae., are pleased to hear of her brilliant success at the Melbourne University Conservatorium, and of her return to the West this week. Miss Lake was formerly of Bridgetown, and obtained a University Music Exhibition at the public examinations in 1923. On Saturday, 16th instant, 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 3. The assisting artists will be Miss Margaret Sharp, Miss Phyllis Browning-Turner, Miss Doris Pearcey and Theo. Meugens.

The competitions conducted by the Elocutionary 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 Coalstad 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 "Bitter Sweet," at the Melbourne Theatre Royal, gives the following reminiscences of Noel Coward (author of "Bitter Sweet"), whom she knew well in England:—"He is considered the outstanding genius of the English stage to-day. As actor, author, composer and producer, he is a unique combination that represented the last 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 alters anything."

* * *

Margaret Rawlings, 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. But—as Miss Rawlings points out—the old idea that there is an easy road to success on the stage has long ago been disproved.

* * *

In a recent article on Dame Sybil Thorndike, the world-famous English actress, coming soon to Australia with her complete company, Hannen Swaffer, 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. Haydn, Mozart, and other composers of their period, wrote music specially for them, and some of the music is of no mean 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 a tiny 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 grown-ups, playing timidly and without expression, and shuffling off the music stool as soon as the last note had been perfunctorily struck."

The Dutch musical public is not favoured with many really first-class operatic performances; but recently they were afforded a treat by the Amsterdam Wagner Society's production of "Boris Godounov" with a star cast, headed by Chaliapin, the famous Russian basso.

* * *

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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I enclose remittance for..... covering..... years' subscription.

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Famous leaders of European dry-battery manufacture, Herberhold's of Holland have now come over to found perfect battery-making as an Australian industry.

The combination of Herberhold skill and knowledge with Australian labour is producing batteries of such quality that two shifts are needed—already—to keep pace with demand!

Already 88 Australian men and women (to which more are being added every week) have mastered this difficult craft under the most expert tuition in the

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