

Ray Allsop and Don. B. Knock — Technical Editors.

# Wireless Weekly <sup>3<sup>d</sup></sup>

INCORPORATING "RADIO IN AUSTRALIA & NEW ZEALAND"

VOL. 13. NO. 19.

FRIDAY, MAY 3, 1929

(Registered at the G.P.O., Sydney, for transmission by post as a newspaper).

## AT THE RADIO EXHIBITION

SEE RADIO  
for

1929  
at  
STAND by

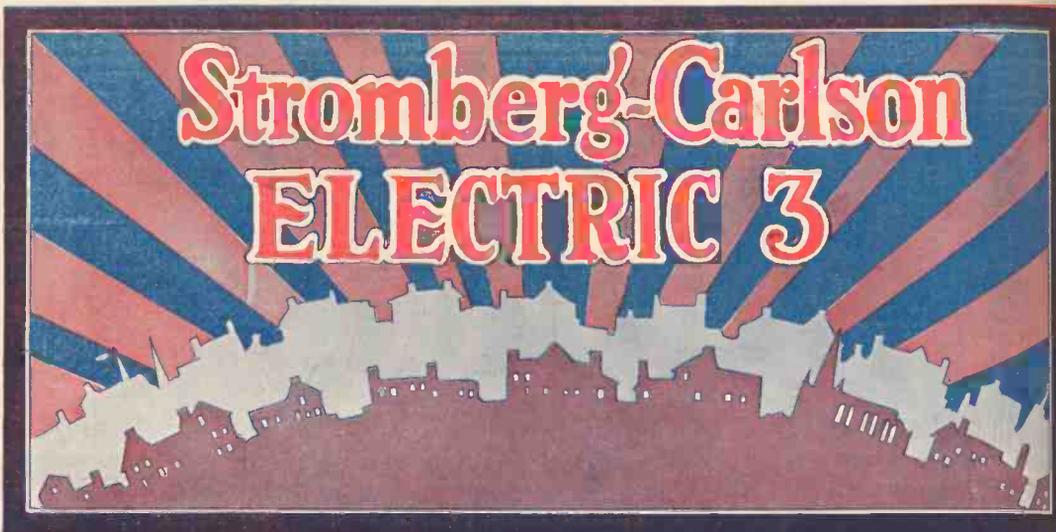
24 PHILIPS

Special Attractions  
at the  
Radio Exhibition

□ □  
Mrs. Smeebolger  
Visits the  
Melbourne Radio  
Festival

□ □  
How to Make Your  
Own Coils

□ □  
Large Radio  
Information Service



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Battery, £52. All Electric, £64**

*Please forward me further particu-  
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**NAME** .....

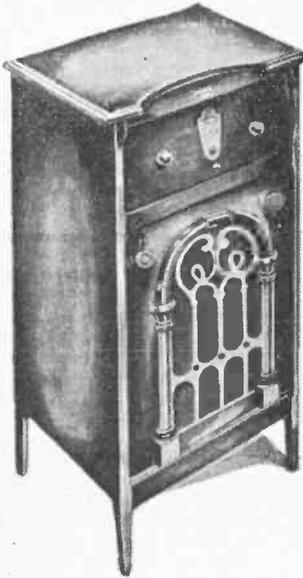
**ADDRESS** .....

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On the left hand side of the Vestibule, Sydney Town Hall.

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There are two beautiful models—the Console, illustrated above, a full length cabinet finished in two-tone effect; and the Table Model (below), encased in a gold-finished metal cabinet.

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I WOULD CERTAINLY like the details of Harringtons Imperia 3—no obligation implied, of course.

NAME .....

ADDRESS .....

W.W., 3/5/29.

## PRIVATE HISTORIES OF ANZAC

*In connection with the Anzac Day Celebrations, 2BL, in conjunction with "Wireless Weekly," solicited stories from witnesses of the landing in an endeavor to record, before it finally becomes glorious legend, private histories of the landing. Hundreds of accounts were received. The three best, which were read from 2BL by Mr. Scott Alexander on Anzac night, are published below.*

### First Prize ANZAC, 1915.

ON April 18, 1915, we embarked at Alexandria, leaving behind us all the growls and curses at Gypos, standstoms, and endless marches over the desert. We reached Lemnos a few days later—everyone (Turks, too, I suppose, now), knowing our destination; a couple of days followed at practising disembarking from the troopship into the boats and landing knee-deep on the island and galloping up over the ploughed fields.

We were paid £3 in sovereigns, but the canteen was empty, so good old Captain MacKenzie went ashore and bought all that was obtainable—foul cigars and some dreadful sweet, like candied honey. The boys sportingly bought him out and pitched most of it overboard.

Then, on April 24, General Birdwood's simple and manly appeal was read out:—On the morrow we landed on a hostile shore! At nightfall the 40 or more ships slipped quietly out of Lemnos. There was a subdued feeling of excitement after the deadly inaction of the weary months in Egypt. We slept little that night—all lights were out.

I smile still when I think of the persistent growls of my cobbler that night when he found that a bag of coins of about two nationalities, and worth about 1/6, had been "lifted." He prayed fervently that there would be one casualty on the morrow—his coin thief.

We reached our destination about 2 or 3 a.m. on Sunday, April 25, and all hands were roused, and, dressing quickly with all gear and provisions, we waited. Breakfast was hurriedly disposed of, and then, after an interminable wait—below deck—the crash of a shell was heard. The darkness was intense, and we crowded round the portholes. We all nearly fell over when an unseen warship, not 20 yards away, commenced firing. We were rushed on deck, and between the sounds of the big guns of the warships and the shrapnel from the Turks on the Point, we heard joyful Aussie yells, and the strong crackle of rifles.

Navy pinnaces came up and we tumbled into them. Dawn was now breaking, and troopships and warships and pinnaces were moving in all directions. Shrapnel was flying indiscriminately. The Turks

did not waste much time seeking targets—they were everywhere!

A big shell would burst suddenly in the water, sending a mighty spray high in the air. There was only one casualty in our boatload, and we jumped out into the water and rushed for the friendly shelter of the ridges. "All packs off!" yelled our captain, and we shed our packs, containing blankets and food, and charged up the hill to the crackle of rifles and the whine and splutter of Turkish shrapnel. We did not fire a shot at the retreating Turks, but kept going up the rough steep ridge. Our warships were going at a terrific rate, pouring shells in all directions at the enemy. We reached the top and flopped into a Turkish trench, vacated by them a few minutes before. It was only 20 yards long, and very narrow, and with the parapet on the wrong side for us, we suffered heavily throughout the day. Several attacks were beaten off, and when nightfall came we were pretty tired, thirsty, and hungry. Throughout the night we worked like fury, connecting up with the rest of our mates on

the ridge, and beating back enemy assaults. Towards midnight our artillery, 100 yards down the hill, fired its first salvo, to our joy—a joy that was soon to be turned to curses, when we found that it drew the concentrated and inaccurate fire of the Turkish guns to our discomfort in the tiny trench. In one corner was a muddy pool which an irascible sergeant declared was poisoned—but our thirst was so great that all except the sergeant risked it, and enjoyed a drink that no nectar could excel.

In the morning, we found that only 20 feet remained to link up with the boys on the left. By this time, the "Good Samaritans" of the Navy had landed water in kerosene tins, and these were passed along the line. We took it in turns to pass a tin over the end of the trench, jump out, fling it into the next trench, and scramble back to the accompaniment of shots from snipers. Several tins were "portholed," and three casualties occurred, but by mid-day we had linked up on each side of us.

Three days later, to our joy, we were relieved; went down to the ravine, passing our Chaplain—Captain Mac., singing happily in a loud, flat voice, "We'll have eggs for our breakfast in the morning."

Four hours later we were rushed back to the line to defend a Turkish attack. And so it went on!

—"740" (1st Brigade).

7 Alexander Avenue, Willoughby.

### Second Prize THE LANDING.

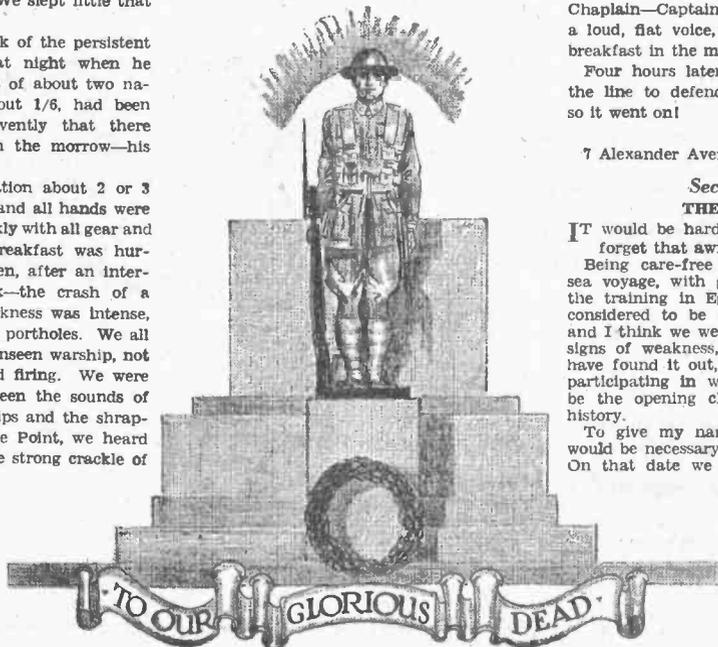
IT would be hard, or rather, impossible, to forget that awful day, April 25.

Being care-free and happy after such a sea voyage, with good wholesome food and the training in Egypt, we were, I suppose, considered to be real specimens of fitness, and I think we were. If there had been any signs of weakness, the hard training would have found it out, and so debarred us from participating in what afterwards proved to be the opening chapter of Australian war history.

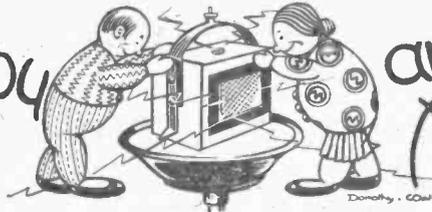
To give my narrative of the landing, it would be necessary to commence on April 24. On that date we were on board the Derflinger, a German prize ship, rolling over the beautiful waters of that wonderful isle-dotted Aegean Sea, all unaware of what the morrow was going to be.

None of us had any idea where we were

(Continued on Page 2)



# Between You and Me and the Microphone



### Ladies and Gentlemen and Listeners

THE conductor of community singing broadcast by 3AR from Geelong recently, in his opening speech said: "Ladies and Gentlemen and Listeners-In." We are wondering if this is the commencement of a new class distinction.

### Mass Production

THE National Broadcasting Company of America finds that out of 510 broadcasts from New York during January there were 212 lectures, twenty-eight plays and sketches, and ninety-three news announcements. Now, that is what we, and possibly our American friends, call talking. And then again, our American friends may have found other modes of description.



### Capital Error

A LETTER to 2FC was addressed "To Whom it may concern." Although Miss Gibson disclaims all right to such worshipful attention.

### Australia's Call-sig

A LETTER from San Francisco admits that Mr. Wolett, of that little old burg, has received 2BL. But Mr. Wolett wants to know what "Coo-ee" means. Mr. Chas. Youngson thinks it is a corruption of the term "oscillation;" and, indeed, the simile is very well drawn; but we believe the term was in existence long before radio. No. We have it on expert authority that "Coo-ee" is the tribal call of the Australian Sphinx, a species of she-cat peculiar to north, south, east, and west of the Australian Hinterland. The Australian Sphinx (Sphinxus Australianus) is prevalent during the summer months, and is noted for its coloring, which is indescribable, and for the extreme beauty of its face, which no one has yet seen. The tribal call of the Sphinx has been imitated with some success by Australian tourists, who find it helpful, in the quieter "beauty spots" of this fair land of ours, in dispelling the inharmonious silence of the Australian bush; and it has gradually come to be recognised as the Australian national call. Hence it has been used to some extent by radio announcers when they have felt the necessity for speaking on behalf of Australia, our own beautiful mortgaged country; and many people have said that, although this is a good excuse for the use of the term "Coo-ee" in radio, it is the only one.



### No Aberdonians in Heaven

FROM 3LO this Sammy Shield's story was heard. An Aberdonian went to Heaven and was asked at the pearly gates where he came from. "Aberdeen," exclaimed the newcomer proudly. "Very sorry," said St Peter, "but we cannot take you in. You see, it would be too much trouble to make porridge for one."

### The Universal Tongue

AN Englishman gave a lecture on "Loud-speakers and their development." Moving curtain lecture to moving coil?

### Those Well-selected Numbers

THE B.C.C., it is reported, has refused to allow titles of dance items to be broadcast. Some conductors have been receiving up to £100 a week from parties interested in boosting new numbers. We are interested to hear that there are people in England who can distinguish one dance number from another. Still, no one in his senses would believe that a jazz band plays for the fun of the thing.

### Songs of the Sea

MR. W. E. LEWIS, with Mr. Charles Lawrence, Mr. John Warren, Mr. Richard Parry, and retired Sea-captains Tyrer, Gale, Palmer, Livingstone, Ree, and Carter, was responsible for an exceptionally fine hour of nautical songs from 2BL. Many old chantes were sung, including Rio Grande, Shenandoah, Blow the Man Down, The Drunken Sailor, etcetera, as they were sung, many years ago, at sea. The evening was quite informal, and intervals between items were enlivened with strange exhortations to "Belay" and "Sheet the main halliards," although we don't think we have the latter expression quite accurately. Also, Mr. Charles Lawrence butted in with comments, as is his habit. Downstairs, after the singing, one of the captains told us how several of the songs used to be sung, before a lot of landlubbers monkeyed with the words. We wish you could have heard him.



### Public Notice

WE wish to contradict the rumor that 2FC's broadcasts of "The Desert Song" will lead to an agitation against a superfluity of dinner music in the programmes.

### More Progress

THERE are springing up already, says an American journal, composers of music dedicated expressly to radio purposes, and an entirely new technique can be, and right now is being, evolved. And, in fact, we have noticed this coming change, even in the works of the Great Masters themselves, as we have sat in our armchairs and listened to the evening programmes.

### Luck Indeed

MELBOURNE station, 3LO, is giving away a lucky ha'penny to everyone who subscribes one shilling to the Tasmanian Lucky Ha'penny Relief Fund. A young Collins House student accountant was one of the first to procure a lucky ha'penny, and within three minutes after leaving the Studio he found a sovereign in the street. There must be some magic charm in these lucky ha'pennies, and I am thinking that one might write wonders in "Tattsmania."

### A Foolish Paragraph

A FEW Saturdays ago, the races were postponed because it was raining; so 2FC put on a solid musical programme during the afternoon. Whereupon one of the staunchest severest critics, who hates racing, sporting, and brass bands, dispensed the following mouthful: "What a wonderful weekend of afternoon music we have had! No racing on Saturday, and no Manly Band on Sunday. Hail, glorious rain! May we have twenty-six wet week-ends." Which brings up the old question of whether books are superior to music—a question which no sporting Australian would care to answer until after the rain; for, of course, he who loses the office cash in book-speculations must be prepared to face the music. (Does this mean anything?—Ed.) (No. Do you think it ought to?)



### A Yankee Retort

DURING a rebroadcast by 3AR of Station W2XAF, Schenectady, the following was heard from the announcer:—"Hullo, Australia, how are you way down under? You have heard of the American bison, of course. Well, I hear that a 'bison' in your country is something you wash your face with." We are wondering if this was meant as a slur on the Australian accent.

### The Early Bird

AT a quarter to eight o'clock on the Wednesday night of Milk Week, Dr. Arthur appeared at the ER studios. It had been arranged, he said, that he should give a talk, or a lecture, or something at about that time. Mr. Kirby was able to fit him in; and the talk proceeded and came to a close. It was not until about nine o'clock that the announcer came through the studio, and the doctor's talk was to have been given from 2FC on the following Thursday night.



# SPECIAL ATTRACTIONS

## at the Radio Exhibition

Radio enthusiasts will be most attracted at the Radio and Electrical Exhibition, which will be open from May 1 to 11, by the special lines exhibited which have not hitherto been available to the public. Many firms have withheld their 1929 apparatus in order to make a good showing at the Exhibition. Below we list the special attractions in the new developments in receivers and components.

WHILE an extraordinarily comprehensive display of general radio apparatus will be shown at the Radio Exhibition, the most noteworthy attractions will be the new model receivers and the range of new apparatus which has not hitherto been available, and which are entirely new developments.

### SETS

Among the new type receivers are the following:—

#### Astor

THE new baby three all-electric of this popular range of models will be on view. Ampmon (Aust.), Ltd., which markets these receivers in N.S.W., will also have on view a screen-grid five-valve neutrodyne. This will be sure to attract considerable attention, for a screen-grid neutrodyne will be something of a novelty.

#### Airzone

AIRZONE will introduce to the public an A.C. set with the whole of the components, including a Magnavox loud speaker, aerial, A.C. power pack, etc., all contained in the one cabinet. No outside connections of any description are necessary; all that is needed is either a lamp socket or a power point, into which the connecting cord from the set can be plugged. Tone, quality, range, and volume are features of this new A.C. set. Perfect reproduction has been developed on the most unique lines. This set is most attractively finished in a cabinet similar to the popular Airzone portable.

#### Stromberg-Carlson

NEW season Stromberg-Carlson receivers will be on view. These are all wholly made in Australia, and represent the very latest designs in both "all electric" and "battery-operated" types. Both the All-electric Six and the Battery Six give excellent interstate reception. The tuning condensers which are recognised as one of the vital parts of a receiver, are of standard heavy type, securely ganged and mounted on special bed-plate, with facilities for rocking the stator of the aerial condenser in order to get maximum distance reception. The audio section of the receivers is equipped with large capacity audio transformers capable of uniformly amplifying the whole range of musical frequencies. The windings are well proportioned and properly insulated, whilst the cores are made of highest quality laminated alloy. Included in both the Six-valve receivers is an output filter.

Provision is made for permanent connection of phonograph pickup unit, which is

brought into use whenever desired by the simple operation of a switch. Pilot lights are provided, and in the case of the Battery Six a special fuse lamp is incorporated to guard against burning out of valves should the set user inadvertently connect his batteries up the wrong way. A meter stand is also built into the Battery Six with special jacks, into which plugs a Jewell double reading volt meter, which readily indicates the condition of both the "A" and "B" batteries.

#### Colvomon

COLVILLE-MOORE will come forward with some modern 1929 receivers, incorporating the "all-electric" principle, and the screen grid. Worthy of mention are the A.C. Three, the A.C. Six, and the screen-grid All-wave Four.

#### Udisco

UNITED DISTRIBUTORS have concentrated for some time on the development of an all-electric set, which will be on view at the Exhibition. A notable feature is the built-in speaker unit. On each set also there is a permanent gramophone attachment and pick-up. The range of models is exceedingly large, but perhaps the favorite will be the Udisco All-electric Four. This set has satisfactorily withstood all its trials, giving excellent volume with all desirable clarity. The set is also very selective, an important feature in these days of modern radio.

#### Harringtons

THIS firm will exhibit new "All-electric" designs in the Imperia models. Good use is made of the Pilot A.C. power pack to obtain A.C. supply.

#### Noyes Bros.

THIS company will bring before public notice the Igranic seven-valve Neutrosonic, the ideal country receiver, and the Seyon (Noyes spelt backwards) All-Electric Three, made in Australia.

#### Mick Simmons, Ltd.

MICK SIMMONS will exhibit a nine-valve receiver, incorporating all the latest improvements in component and receiver design. In addition, dynamic speakers (Magnavox) of the latest type, including Beverley Junior, Beverley Senior, the Belvedere (made up as a fire screen), the Aristocrat, and the Cordova, will be shown at Stand 44.

#### Cossor

COSSOR will show a totally enclosed metal shielded three-valve receiver, termed "The Melody Maker," which uses a screen grid valve, and which can be made up by anybody in 90 minutes from simple charts sup-

plied. Of this, more in a later issue. The new Cossor valves, with Kalenised filament, including several new types, as, for instance, the two-valve screen grid valve, will also be on view.

### COMPONENTS

A large number of new component parts will be on view. These will include:—

#### Manufacturers Products

THIS firm has brought out a line of M.P. Stirling dynamic speakers, manufactured by the Stirling Instrument Co., of U.S.A., and made under the Maznovox patents. These units handle reproduction perfectly, effectively bringing out the rich, deep notes. A feature of the M.P.80 Stirling Dynamic, which connects direct with the power point, with the necessary step-down transformer and metal rectifier, is the special hum-eliminator, which effectively silences the aggravating hum always prevalent in A.C. current when being rectified. The M.P.6 Stirling Dynamic unit is used for direct connection with any six-volt A battery, and gives wonderful results. These units will be displayed separately or in very attractive cabinets. The console model, finished in walnut, and the table model should appeal to anyone requiring a really good speaker, and in addition to these there is a shield, or standing model, which is creating a great deal of attention. This not only acts as an ornamental shield, but also has a very effective baffle board.

Another new feature of the Manufacturers Products Pty., Ltd., show is the Baldwin Pick-up, which can be easily adapted to any gramophone. An exclusive feature of this pick-up is the tone arm, which is equipped with a special tension spring, and makes it susceptible to any irregularity, thus prolonging the life of the records, as it is balanced over the record and not on it. A volume control enables adjustments to be made to suit individual requirements, and the reproduced tone is marked with unusual clarity. It is finished in either old gold or polished nickel, with black trimmings, and is equipped with a cord all ready to plug in.

As exclusive factory representatives for Emmco they display many new lines, including A.C. equipment complete, from separate transformer, chokes, condenser packs, etc., to a complete power pack adapted for all the different voltages and type of tubes. A new type of bakelite resistance, which will not burn out, should prove of great interest to the technical men. The Mello metal vernier dial, similar to a well-known American make, is very attractive, and will undoubtedly be used on many new sets this season. These are but a few of the twenty-odd new lines which Emmco is bringing out for the 1929 radio season.

#### British General Electric Co.

OUR queries have offered excellent proof that some hundreds of excited television fans are eagerly awaiting the advent of the photo-electric cell on the market. The first

firm to land the photo-electric cell were the B.G.E. when the only three samples available were immediately procured by Mr. Allsop. One of these valves will be on view.

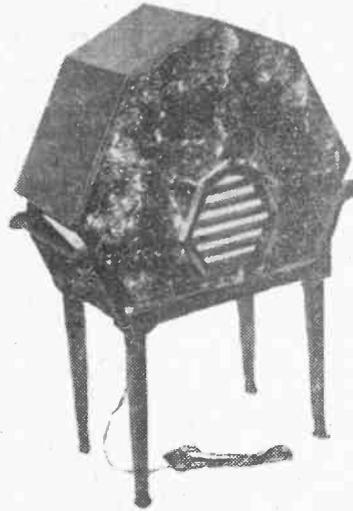
For the fan interested in new valve creations, B.G.E. advise that a new range of Osram power valves (four volts, P425—six volt P625 and P635A) will be on view. These valves are suitable for moving coil speakers, and deliver tremendous volume without distortion. The new screen-grid valve, taking only two volts filament (S215) will also be shown, together with the now famous Osram S625, screen grid.

Perfect reproduction is claimed for the Paque Cone Speaker, which has been named the Geophone Junior Cone (cat. No. EC1720), which is to be retailed at the extraordinary price of £3.

A set of photographs showing the placement of apparatus in the Southern Cross radio equipment will also be on view. It is a noteworthy fact that Smith and Ulm were able to listen nightly, by means of their Osram valves, to 2FC and 2BL. In addition to this, it is hoped to exhibit Wing-Commander Wackett's original transmitter, which he used during the long search.

A novel innovation, which will be practical proof of the extraordinary strength of the new Osram Tenacious Filament will be shown. A valve inside its carton will be rolled about inside a box (the interior of which can be seen). A battery will be connected to the filament, and so arranged that as soon as the filament breaks a bright pilot lamp will be extinguished. As long as the pilot light glows the filament of the valve is proved to be intact.

Nor is this all. Our description commenced with something of interest for the television fan, but there is yet some more good news for him. Mr. Allsop, Associate Technical Editor of this paper, and Chief Engineer of 2BL, found the greatest difficulty in television was in arranging a synchronised motor. Several people laughed when B.G.E. undertook to convert a stock model motor to carry out the job. By means of adjustments to a 1 h.p. motor (three phase) the characteristics of which were 415 volts at 50 cycles, running at 1400 revolutions per minute, with



The Philips Permogetic Speaker.

one end geared to a television disc and the other balanced for a chain supply wheel. Mr. Allsop now rejoices in perfect synchronism.

#### Amplion

THE principal new exhibit in the component part field will be a new speaker driven by the reed current system.

#### Airzone

AIRZONE will show a very compact all-metal "B" eliminator, which can be fitted into the Airzone Portable. It is made up in a very attractive all-metal case, blue crystal-

line enamel finish. Airzone are also showing a new four-valve accumulator, which is specially designed for use in the Airzone Portable and two and three valve receivers, eliminating the use of dry "A" batteries. The accumulator is solidly constructed and finished in rubber black, with a capacity of 75 ampere hours actual. Size, 5 1/2 x 7 inches high.

#### Philips

PHILIPS LAMPS, LTD. will exhibit a compact gramophone amplifying unit, with switch and single control, employing the A415 and B443 (the latter a Penthode valve). The "Peter Pan," a new speaker with an extra large baffle and full floating cone, the F209 A.C. valve, which will be in great demand as soon as All A.C. receivers take on the 10-watt A.C. operated amplifier, complete with power supply apparatus, the Philips Power Pack for A.C. valves, consisting of a B and C unit and filament transformer, and a new dual rate "A" charger (the 1453, which may be used for boosting or trickle charging) will be among the many attractions on the stand.



THE NEW PHILIPS PICKUP.

## THE UNBROADCAST CONCERT

THE other night Mr. G. Vern Barnett came up from an afternoon's playing at the music teachers' conference at the Conservatorium to play for 2BL's chorus. He was very beautiful to behold. His boots were perfect; his striped trousers most becoming; his morning coat was superb; and there is only one word for his double-breasted, speckled waistcoat; and that word is, ravishing.



His son Andrew accompanied him, and seemed very much in awe of his father's sartorial splendors. When the chorus had come to its usual disgusting conclusions, Mr. Barnett introduced his son to Captain Stevens, who asked him, in the manner reserved by indulgent uncles for their special favorites, whether he could play. Forthwith, young Andrew Barnett was hoisted to the piano stool, whence he began to strike the keys to some purpose, producing "Long, Long Ago" and "The Bluebells of Scotland," while his father watched him anxious and sympathetically as he might watch Spivakovsky. Meanwhile, Mr. Vern Barnett's festival attire had roused old memories in the bosom of

Captain Stevens, of times when he used to sing on concert platforms and at select gatherings to the Barnett accompaniment. "Vern," he said, "could you play an accompaniment to 'Still wie die Nachi' from memory?" "Of course," said Mr. Barnett. "Would you?" "Yes, if you don't mind," said the Captain; "I don't often get the chance of an accompaniment nowadays." So Mr. Barnett displaced young Andrew at the piano stool, and Captain Stevens sent forth his soul in song. It was a darn good song to send forth one's soul on; and the Captain sang it very well. We felt, although we did not make the experiment, that if we had stuck a pin in the Captain while he was singing that old song he would not have noticed it. This first song only whetted the Captain's appetite; and he sang another—"Bois Epais," which, he informs us, means sombre woods. We are under the impression that this song, also, was very well rendered, but are not certain, because just in the middle the winding apparatus of young Andrew's watch came unput, and we spent many unfruitful minutes attempting to put it together again. Andrew blamed his father, and his father admitted the fault, adding that although the watch was termed proofproof it was not manproof, an attitude very strange and rare in fathers. All these things happened in the 2BL studio on a night when "Hit the Deck" was going over the air.

#### Australian Made

THREE announcements were made this week, showing that in the manufacture of wireless apparatus Australia can hold its own with the rest of the world.

The New Zealand Government has accepted the tender of Amalgamated Wireless for a short-wave transmitter, to be used for Empire broadcasting. This contract was gained in face of competition from the whole world.

It is reported also that the wireless equipment for the Adelaide Company's new motorship Manunda, which is now being built on the Clyde, has been made by Amalgamated Wireless, and is now on the way to Scotland to be fitted. This seems almost like carrying coals to Newcastle, but the Adelaide Company has had experience of Australian-made wireless equipment, and the Australian company gained the contract in the face of overseas competition. The Manunda equipment will be the most modern on the Australian coast. It includes directional-finding apparatus, band repeater equipment, which enables music to be heard in every part of the ship, besides valve transmitters and receivers.

It is announced also that the Public Works Department of New South Wales has decided to extend the wireless telegraphy scheme which is in use for communications over the area served by the Burrinjuck hydro electric scheme. To this end a contract for two new radio transmitters has been given to Amalgamated Wireless.

# ELECTRIFYING the RADIO DEALER



Mrs. Smeebolger, well known to most of our readers as author of the Bargain Sale Five, visits the Melbourne Radio Festival, accompanied by Mrs. Mahood. Our contributor, who is often heard from 3LO in talks on interior decoration, takes the woman's point of view with excellent humor.

By MARGUERITE MAHOOD



It's quite useless saying that women don't take an interest in wireless these days. They always did. Wireless in the home would never have gone beyond the crude experimental stage but for the gentle voice of womanly encouragement, urging:—  
 "For heaven's sake, Henry, are you going to leave that mess on the dining-room table? Can't you put ANYTHING away? And LOOK what you've done to the carpet! You're absolutely DESTROYING the furniture. Upon my word, if I'd known what a menace you were going to make of yourself with this wireless, I'd never have allowed you to start it!" Yes, women have always taken a keen interest in Wireless in the Home—so much so that it was often forced to migrate to the woodshed.

The radio dealers were quick to realise this, so now, as demonstrated at the recent Melbourne Radio Festival, they make their sets all nice and tidy in dainty little boxes with instructions that they are not to be meddled with. They have transformed the loud-speaker—that aggressive horn. It was too big for the occasional table, it wasn't at home on the piano, on the floor it was apt to be mistaken for a cuspidor, it refused to blend with any scheme of decoration—in fact, the only place it might be appropriate was on a ship's deck among the ventilator funnels, and so it was always being planted behind the sofa for appearance sake.

Now they have speakers that pretend to be rosebuds and soup plates and fire-screens and canary cages and lampshades and all sorts of non-committal things. And with the coming of the indoor aerial it is still easier to conceal the evidence of such domestic pests as wireless fans and silverfish. One can explain that the glittering metal tape which decorates the gasolier is part of last Christmas decorations which has been overlooked, or the electron wire festooned under the cornice is merely to break the fall of the flies when they tumble off the ceiling. No longer must we expose the shortcomings of our set when visitors brightly remark:—"I see you've got the wireless," by mumbling apologetically: "Yes, and it was lovely last week, but Henry thinks the worms must have got into the earth connection, or something; it's not working just now."

But, of course, the greatest achievement of modern wireless is in making the set and speaker look like something else—for something that looks like something else is the beau ideal of most home decorators. The radio dealer is a cunning fellow; he has saved his bacon by this policy of masterly camouflage. How long do you think wireless in the home would have lasted had he still permitted Henry to mess up the living-room with his nasty little coils of wire and batteries and bits and pieces? I ask you. As ever, the hand that cranks the radio rules the world. Feminine opinion in this matter, as in others, is paramount and deserves to be considered.

And who is a better representative of feminine opinion than my friend, Mrs. Smeebolger? In the world of radio she has swept in where man has feared to tread. With the assistance of other members of the Foots-crayfish Ladies' Aid Society (myself among them) she made a five-valve set THAT WORKED from parts gathered from radio junk counters, and costing in all only £1/19/11! Who, among my male readers, has done that? Certainly Mr. Smeebolger had to call in a radio expert to put in a few extra odds and ends before it did work, but, as Mrs. S. says, "Who asked him to call an expert in?" And it didn't cost Mrs. S. a penny more than the sum mentioned. So that settles that—and I do not think anyone will question our claim to be competent critics of the radio display at the Melbourne Exhibition.

The first thing that is impressed upon one in entering the exhibition is the fact that it is the day of the Electrified Radio Set. This means that you don't have to use batteries in the set at all; there is just a string to which is attached a thing with two prongs on it, which you stick into a power point, and the set works. This is so much simpler, that it seems a pity it wasn't thought of before. As Mrs. Smeebolger says, it would take a man all that time to think of a simple, labor-saving device like that. If they had only used it in the early days of wireless, it would have saved no end of trouble with accumulators and things. She says it isn't the wireless that wants electrifying so much as the people who invent it. Wireless, she says, is inclined to be selfish. All this apparatus—amplifiers and power valves and beam wireless and what-not, all for the enjoyment of some wretched little man who wants to listen to the football instead of spudding weeds out of the lawn—this mighty force should be applied to more useful ends.

The next few stands we came to displayed a remarkable lack of originality, showing nothing but wireless sets of various shapes and sizes, some resembling in form and color large madeira cakes, others week-end cases, all being more or less oblong in construction with square corners, and containing valves. At one of these stands the salesman was particularly busy descanting on the virtues of his sets, but, bored down to essentials, they worked on just the same system as all the others. "What I should really like to see," said Mrs. Smeebolger, cutting short his explanations, "is one of those Camisole sets." "Oo—er—er!" stammered the youth in a puzzled manner. "I mean," explained Mrs. Smeebolger, with remarkable patience, "one of those sets like a linen cupboard with the



TAKING AN INTEREST IN RADIO

speaker inside." "Oh," said the young man, looking relieved. "You mean a console—" He caught Mrs. S.'s eye, and stopped. Mrs. S. does not care to be corrected. "Pardon me, young man," she said sternly, "I think I may claim to have had more acquaintance with the article in question than you have—or should have, at any rate. But I will not bandy words. . . ." and haughtily she swept out of the stand, leaving the demonstrator slowly opening and closing his mouth and blinking his eyes in a dazed manner. Mrs. S. has a way with these salesmen; she will not be imposed upon.

The battery exhibit did not interest us to any great extent until we came upon a collection of Holdem Batteries, in glass boxes, which took Mrs. Smeebolger's fancy. "I shall insist on Mr. S. using these," she exclaimed; "what nice pickle-jars they would make when he has sucked all the juice out of them with the wireless set. We may as well get something out of Henry's wireless besides the earache"—and she made a note of them in her shopping list, and sailed on to the next exhibit.

This was a collection of giant valves about the size of footballs, with cucumbers attached to each end—that is, the valves didn't have cucumbers attached to each end, but they were the size that footballs would be if the footballs had cucumbers attached to each end of each football. I hope that makes my meaning clear. They were called Marconi valves, after the man who discovered America, and they are used in transmitting messages to Japan and England, and placés that cannot be reached by ordinary telephone. They strongly reminded Mrs. Smeebolger of a man she had seen playing tunes on bottles at the Aquarium; in fact, she assured me that each different sized valve had its distinctive note, and tapped one of them sharply with the tip of her umbrella to demonstrate the fact. She was proceeding to demonstrate on some of the others, when an extremely officious person, in charge of the stand, interfered in an unnecessarily excited manner. Mrs. Smeebolger, having expressed her opinion that a person of his temperamental propensities was unfit to have charge of a public display, made her exit with dignity.

"They do hate to have their technical secrets given away," she explained to me in confidence, "we made our way through the crowd to the place where an elegant young man in glasses was proclaiming the points of his set—its village maiden simplicity and purity, its surgeon-like ease of operation, the compactness of its arrangement, and the knoblessness of its panel. "This Back-water Dent receiver," he orated, "answers every requirement of the radio fan. No point has been overlooked. I shall be pleased to answer

### Result of the Interpretation Competition

OUT of the many hundreds of entries received in connection with the "Interpretation Competition," held at 2FC on April 18, only one person succeeded in correctly guessing the order of popularity of the performances, which was as follows:—

- Brunton Gibb (Coster).
- H. W. Varna (Englishman).
- Carlton Fay (Italian).
- Montgomery Stuart (Frenchman).
- Lawrence Macaulay (Scotsman).
- Joe Cahill (Irishman).

The prize of £2 2s offered for the correct entry received goes to Mrs. E. Hergenhan, Auckland Street, Bega, South Coast.

The competition was an outstanding success, and many who had not entered the competition enjoyed the various interpretations of the performers.

any question that may be asked by those present. . . . Yes, madam," he continued, as Mrs. S., with a few deft thrusts of her elbows, forged to the front, "there is something I can tell you?" "There is," answered Mrs. S. "I should very much like to know who made those parchment lampshades at the back of your stand. My niece, Annie

Foozle, made some almost identical with those for our church bazaar, and I suspect that there are those not above copying her ideas." The salesman stood, quite at a loss for an answer to Mrs. Smeebolger's pertinent queries, a picture, it seemed to me, of embarrassed guilt. He did not dare to interrupt her flow of justifiable indignation until it filled-bred person in the crowd interrupted with some trivial question, when the hurried demonstrator seized him by the arm and drove with great velocity into the demonstrator's cave at the back of his stand. We waited for him for some time, but he did not reappear, though we thought we saw his face several times peeping through the window of his cave. So, like a lioness disappointed, Mrs. Smeebolger gave up her virginal and went on.

We came upon an exhibit of valves where the exhibitor was displaying a panel on which was mounted a valve in various stages of growth; but his fine flow of eloquence was suddenly stemmed by Mrs. Smeebolger's question as to whether the vacuum was put in to the valve or pumped out; and if it wasn't definitely put in, how did they know it was there. He just stared at us in reply. "Can't even answer a simple question," said Mrs. S., as she turned away impatiently. "Now, if women were running this show, they would never be at a loss for an answer, right or wrong."

The rest of the show was not particularly interesting, consisting mainly, as I said before, of radio sets, more or less square in shape, with valves in them. On the whole, it was merely another exhibition of masculine inefficiency. As Mrs. Smeebolger said, "Just wait. When woman makes up her mind to give a display, then you'll see something that really is worth seeing."

### Dorothy Stephens

DOROTHY STEPHENS, a dainty and vivacious entertainer, who will soon become very popular at 3AR, is well known in Sydney, especially with regard to concerts for the young folk, and is always a welcome visitor to the Children's Hospital. Miss Stephens' popularity with the little folks in the hospitals is readily explained when it is known that she spent a great deal of her childhood in the hospital—a bad leg keeping her prisoner to some years. During this time many artists visited the hospital, and, after they had taken their departure, the frank criticism indulged in by the children (which Miss Dorothy has never forgotten) was a sure indication of what they really enjoyed, and since she has blossomed into an entertainer on her own account, this is what she has sought to give. Though she has studied music seriously, Miss Stephens is at her best in novelty numbers, and will sing a group that have been specially written for her by the gifted composer, Jack Lumsdaine, who will play the accompaniments to his own compositions.



# "Onward Up Shrapnel Gully"

(Stories of Anzac,  
continued from  
Page 3)

bound for, until late on the afternoon of April 24, when we were assembled on deck and were told that early next morning we were to taste our first battle, and well I remember our grand old Colonel, with tears in his eyes, giving sound advice to the men—to use his own words, he said, "To-morrow we are to engage the Turks, and, no doubt, we shall have some very stiff fighting, but I have great faith in my men and we shall come out victorious. But many who are here now will not be with us this time to-morrow, and I advise all of you boys (for most of you are no more than boys) to write to your mothers and sweethearts who will be praying for your safety. All letters will be left on the ship and posted later. At our next muster I hope I will see all the same faces, and that my fears of heavy losses will be groundless." He wished us all good luck. We then had Divine Service, and that old hymn, "Nearer, My God, to Thee," was sung like it had never been sung before. When night fell, all lights were extinguished, and smoking on deck, or even talking, would have been one of the greatest crimes one could have committed. We were told not to get undressed, but get as much rest as possible, for orders would be given at any time to get over the side of the ship into the barges. This order came about 4.30 a.m. on the 25th.

It was an uncanny business, as there was no order given louder than a whisper, and every move was on tip-toe, as if the Turk were only on the deck below. Rations had previously been handed out, which consisted of about one pound of small plain biscuits, one tin of bully beef, and a tin of sugar and tea. We carried a full pack, 250 rounds of ammunition, and a rifle, so, altogether, we were carrying about 80 or 90lb. on our backs.

We were then packed like sardines in the barges, which was no easy job, for we had to come down a Jacob's ladder, and to do this with our heavy packs on our backs and a rifle in one hand took a long time. Six barges were tied one behind the other, and a naval pinnace towed us in as near as possible to the shore. About fifty yards or so from the shore we met our first casualty—a shell from the Turks landed right into one of the barges, which threw pieces of wood and human beings high into the air, and the water became red with the blood of some of Australia's finest sons. This, of course, made our landing more difficult, and, in the mix-up that ensued, a number of men in the other barges were getting hit with shrapnel.

Eventually we got close enough to the shore to jump into the water, but we did not know what the bottom was like. Instead of, as we thought, being sand, it was big boulders, and very deep in some places—it came over my head, because I had jumped between two boulders. I lost my rifle, but had no difficulty in securing another on the beach, because I had no sooner stepped ashore than a signaller was shot dead just in front of me. I took his rifle and placed his flags over his face.

By this time the battle was in full swing. British, Japanese, and Russian battleships were pouring their death messages over the hill. Turkish rifles and machine-guns were spitting death in every direction. Doctors and Army Medical Corps men were tending the wounded and improvising hospitals, which were becoming more like butchers' shops, naval pinnaces were racing backwards and forwards to the ships with the wounded and dying, water bottles were being emptied in satisfying the craving that always follows the wound. Every few minutes was heard that stretched half-whispered, half-spoken cry of "Stretcher-bearers wanted on the right," "Stretcher-bearers wanted on the left." Officers were becoming fewer, non-commissioned officers stepping into their places. When a non-commissioned officer fell, a private would fill his place, and so up the hill

went the first ANZAC, the sun rising, and pouring down its heat, the smell of powder, the excitement; food was forgotten—in fact, I doubt if many had food with them, because in the first rush for the hills, our packs were thrown away, and, in a great number of cases, the rations followed the packs.

At about 10 o'clock we had made some sort of order out of chaos, and were now making a more concerted attack, where, before, it was individual. Our first prize was at Fisherman's Hut. We had seen the hut nestling in the long grass, or, rather, herbs, for Gallipoli was overrun with sage and thyme, and, hearing someone moving about inside, we all dropped to the ground and, like Indians, surrounded it. One of our men rushed at the door, which flew open and, instead of capturing perhaps the headquarters of the Turkish Army, we had taken no less than a fine lot of donkeys, the famous "Murphy" being one of that bunch.

Onward up Shrapnel Gully, in single file, with Turks on either side picking us at will, only for unevenness of the country not one of the Australian would have made the top. It is really wonderful what men can do when they are put to it. If a bullet fell short, someone would say, "You're a rotten shot; have another go," and, sure enough, he would. Anzac must have been made for the sniper, for all the hills had slits or crannies, and in these a Turk would take up his abode with, perhaps, three or four boxes of ammunition and two or three rifles, and was prepared to remain there until he was shot or captured. Some were very hard to pick up, because they were practically sewn up in greenery.

Towards the afternoon we were on the crest of the hills, and had a good view of the surrounding country, which looked more like the Hawkesbury than anything else. I think we could have had a nice picnic there, only we realised, even then, that a war was on.

Our water now was becoming a very serious question. We had drunk most of it in the forenoon, and water at that time was far more valuable than food. We had passed a small stream of water, about a foot wide and about three or four inches deep, on our way up. Four of us were told off to collect as many water-bottles as we could and go back and fill them. We found the stream, and all fell on our stomachs and drank and drank. I don't think I have ever drunk so much water in all my life. On our way back, about six yards from where we had been drinking, were about seven dead men, apparently all having been killed by the one shell, lying in the water. We reached the main body about an hour later, having lost one of the water carriers, who was killed by a spent nosecap of a shell striking him in the chest.

At about 4 o'clock we were well over the hill in what seemed to me to be a ploughed paddock, and very boggy. Here we lost a great number of our men through machine-gun fire. It was then that we gave ground and got back to the crest of the hill, and consolidated our positions and made some sort of trenches with our entrenching tools. A rough muster was taken, and it was found that more than 50 per cent. of our battalion was missing. A final check was made on the Friday following, and a number of our men turned up. They had got mixed up at the landing, and had attached themselves to any battalion, but that did not lessen our casualty list to any great extent.

It was when night began to fall and our nerves began to take shape again that the reaction of that terrible day started to tell on us. To make things worse, the night was cold, and drizzling rain began to fall. The

moans of some poor fellow who had been hit, and whom it was impossible to move made that night the worst nightmare I ever had to experience. The day was bad, but the night was infinitely worse, and yet, that a man can get used to it is shown by the fact that a good number of us went through to the end of the war, and saw many a night after a battle, but the landing at Gallipoli stands out alone in my memory of the Great War.

W. D. HOUGHTON,

Late 746, 4th Batt.

## Third Prize

### AN ANZAC STORY

WE were a small bombing party of six, of "C" Squadron, 7th A.L. Horse, in a sap connecting our front line and the Turks' front line.

The sap was about 20 feet long and six feet deep, with a shelter midway of two widths of galvanised iron, overlaid with sandbags; at the other end was a hairpin curve, the sap being blocked up with a sandbag wall with a small aperture for a rifle. We dominated this vital curve, and one of our men was continuously, night and day, on guard with his rifle through the aperture, watching for Turks who might show up on the other side of the sandbag wall; this man, likewise, had his protecting roof of galvanised iron overlaid with sandbags.

The sap did not go straight forward from our front line, but ran almost parallel with it at a distance of a few feet only, but our front line was built up so that we really had a wall of earth behind us about 10 feet high. Before us, and also roughly parallel, was the trench occupied by the Turks, at a distance up to about 15 feet.

Those were the days of jam-tin bombs, and some of our party were killers and others life-savers.

Curran was our chief bomb-thrower, and how elated he was when a Turk's groans signalled that he had caused a casualty! He won the D.C.M. on this job.

The Turks, in throwing their cricket ball bombs, had two marks, the main trench and our sap, and if they hit the wall behind, well, their bombs simply rolled down among us, and, by the time they reached the ground, were ready to explode.

Our life-saving party had loosely-filled sandbags and old blankets with which to cover the Turks' bombs as they fell, with the object of extinguishing the fuse. Their job necessitated watching the Turks' bombs in the air and smothering them immediately they lobbed, but if they were to lob on the roof shelter, there was nothing to do but to rush underneath and wait until they exploded, and that would be only a few inches above us, as we had to stoop to get under the shelter. The noise of the explosion would then almost lift our heads off.

One dark night the fuse of a bomb was sighted in the air, and it hit the parapet of the trench behind us and, in rolling down the wall, was very difficult to follow.

Hampson, the nearest life-saver, may have failed to follow its course to the ground or failed to completely smother it. On the other hand, it is likely that he located it by touch too late, and lay on it to save the rest of us. In any case it got him full in the abdomen, and he died almost immediately.

He was an Englishman, and had not been long in Australia, and seemed to have no friends. If any listener-in should be acquainted with his relatives, I should be glad for them to pass on the story of his brave end.

C. H. JONES,

Ex-Corporal, 460, 7th A.L. Horse Reg.



Mr. Albert Cazabon.

### Mr. Albert Cazabon

**MR. ALBERT CAZABON** began as a child, like so many of us, in London. His father gave him early lessons in violin playing, and afterwards he studied under Johannes Wolff, Senor Arbos, Dr. Hamilton Robinson, and Gustave Holst. We said yes; we've heard of that man somewhere? "I should think so," said Mr. Cazabon amusedly surprisedly. "I regard him as one of the greatest composers in the world." Which shows that a little knowledge in interviews is a discomfiting thing.

When he was nine years old he gave his first concert at the Queen's Hall. Since then he has given many others, which is dry humor. He has published many pieces for the violin and orchestral works, and has written music to productions from Shakespeare to light opera, which, of course, is a very long distance, indeed; and he has conducted the London Symphony Orchestra. We mean to say . . .

Eventually he took up film music, composing and conducting in London; but, in spite of his various attainments, he sticks with the stickiness of a mid-Victorian husband to his early love, the violin.

Mr. Cazabon always wanted to come out to Australia, as his wife is an Australian, and had often thought of coming out here as solo violinist; but until E. J. Carroll saw him two years ago he was unable to finalise any arrangements. When he arrived Australia exercised her well-known charms (climate, people, and unique atmosphere in case you have forgotten), and he is quite content to remain here for many a long day to come. Certainly one would miss the dapper little figure, conducting in front of the motting curtain of the Prince Edward.

He believes in picture theatre music. This and radio, he says, will in future share the responsibility for the musical taste of the masses. "The greatest factors in modern musical development are the cinema and broadcasting. After two years' experience of Australian conditions I have no fears for the future—Australian music is potentially as good as any in the world. To give it full expression and to develop it still further the public must be kept interested in the best music, and this responsibility must be shouldered by radio broadcasting. In England the British Wireless Symphony Orchestra (which he conducted through several of his own compositions) has a permanent staff of from 35

# PROGRAMME PERSONALITIES

to 40 musicians. It plays every night. The orchestra is frequently increased to about 200 performers, and gives concerts in the Albert Hall, which seats about 9000 people. As these performances are subsidised by the B.B.C. the 9000 people can get seats from one shilling to five shillings. Thus, broadcasting guarantees good music at a low price to people on the spot, and the best performances obtainable to listeners-in. Without broadcasting these things would be financially impossible. I hope Australia may approach towards such conditions."

Mr. Cazabon will be heard often from 2FC in the future. He recalls that his first performance in Australia was from that station on the occasion of the great Empire broadcast, remarking, with some show of pleasure, the coincidence that his first recital should be a greeting to Home.

He tells the story of a Canadian, who complimented him on his virtuosity with the violin. "I'll say, guy," said the flatterer. "that fiddle of yours is as good as a saxophone."

### Miss Dagmar Roberts

**WHAT** is the Emperor Concerto? The Emperor Concerto is what Miss Dagmar Roberts played with both hands, by ear, at the age of three. Thus does great music at last find recognition. But the conversation should turn on Miss Dagmar Roberts; so we have begun badly. Another paragraph is clearly indicated. It follows.

When she was five, Miss Roberts was reading music properly. Her first lessons were from Mr. J. W. E. Pople, of the Redfern Conservatorium of Music, and continued until she went to the Sydney Conservatorium

of Music, where she studied under Mr. Laurence Godfrey Smith. But we must not forget that Mr. Code taught her the violin for one year, when she was nine years old, although the violin was dropped in favor of the piano which better suits Miss Roberts' temperament.

Twenty medals and a couple of scholarships are hers, and the first time the board gave a £50 prize it gave that prize to Miss Roberts. Also, Miss Roberts may, when she wishes put the letters A.M.E.V. (Con.) after her name. She holds Performance and Teaching diplomas, and has played at hundreds of concerts, won in the Radio Elstedford pianoforte section, and Ignace Friedmann heard her play the Chromatic Fantasy, and spoke enthusiastically in German with Mr. Smith.

Last year Miss Roberts gave her first recital at the Conservatorium, and appeared in the Girls' Week concert at the Town Hall. When you consider that she is not yet twenty years old, you may understand why everyone expects to hear a good deal more about her. At present she is studying with Mr. Alexander Sverjensky.

Miss Roberts wishes to go to Leipzig, thence to Vienna, and thence to the various accepted places to study and give recitals, and there may be an Australian tour next year. Her very extra favorite composer is Brahms, whose Sonata (Op. 5) she plays with great success at one of her concerts. And she is very fond of Schumann and Chopin.

But music is only one thing. Miss Roberts' hobbies include swimming, surfing, and yachting, and she is rather keen on dancing, although many invitations must be thrown, regretfully under the concert platform. Then her mother, Mrs. J. Waller Roberts, produces plays for the Roseville Amateur Dramatic Society, and Miss Roberts enjoys acting, although she prefers humorous character parts in straight drama to musical comedy.

Finally, Miss Roberts reads tremendously. Jules Verne, Rath, Victor Hugo, and someone who wrote "Typhoon," are her favorites, and occasionally she takes up her pen to write. As follows:—

### PADEREWSKI

(By MISS DAGMAR ROBERTS.)

Great surging waves of overwhelming sound,  
Impassioned notes that kindle ecstasy,  
The stormy mood of windswept earth and sky,  
And thundering sea.

Then melodies of such sweet poignancy  
That in those slender fingers—thus it seems—  
Lie all the sorrows of this world of ours,  
And all the dreams.

Soft lilting tunes that quicken memory,  
Recalling childhood's laughter-lightest years;  
Cascades of liquid sound like scattered pearls,  
Or falling tears.



Miss Dagmar Roberts.

# High Quality AMPLIFICATION

By RAY ALLSOP

(Associate Technical Editor)

Mr. Allsop, who is also Chief  
Engineer of 2BL, continues his  
series on Broadcasting

overworked, it will be the power stage. A very satisfactory indicator to show when the intensity exceeds the straight line capacity of the amplifier, consists in a milliammeter in the grid circuit and a meter in the plate circuit. If the grid swings positive with respect to the filament, the grid meter will kick and perhaps the plate meter also, while too great a negative swing will cause a kick on the plate meter. Careful listening will reveal an impairment of quality which disappears as soon as the intensity is reduced to a point where the meters cease to show disturbance.

Listening alone is not a satisfactory substitute since the distortion is not so quickly or surely noticed, particularly in view of fatigue of attention, and if distortion is noticed, its origin might be elsewhere in the system.

The increased output from a power amplifier, obtained by adding power valves in multiple, is often disappointing, the gain being slow compared with that which can be accomplished with increased voltage, or with valves of higher rating. However, there are cases in which it is desirable to use several valves in multiple. With the load impedance already several times the valve resistance, which is the proper relation for maximum output, the addition of a second valve in multiple with the first would not give a perceptible increase in output. But if the load impedance is readjusted to half the previous value, twice the power output can be obtained, corresponding to about 40 per cent. increase in sound amplitude, which is a noticeable but not a striking difference.

When several valves are connected in multiple, they may form an oscillating system, and fill the valves with high frequency oscillations. This is less likely to occur if the connecting wires are made very short, but with high power valves, it is frequently necessary to employ some means of stopping the parasitic oscillations, such as an individual resistance or choke connected in series close to the grid of each valve. A few turns of wire on a small solid iron core will suffice, since such a choke introduces a high effective resistance at the extremely high frequencies concerned.

With a supply of high voltage available, such as is necessary for power valves, the design of the preceding amplifier stage is simple. Resistance-capacity coupling can be used with sufficiently high plate resistance to obtain three-fourths or four-fifths of the full amplification of the valve. Under these circumstances, and with high amplification valves available, there would be little argument for transformer coupling. In designing a resistance-capacity coupled amplifier, the following points must be kept in mind:—

1. The reactance of the coupling condenser at the lowest frequency to be passed must be less than the grid leak resistance.

2. No grid should swing positive with respect to the negative end of the filament, or, in other words, the grid bias must be greater than the extreme grid swing required.

3. If the expected swing in plate potential of any valve is more than 20 per cent. of the average voltage on the plate, or if the plate current is very small, the dynamic characteristic should be worked out to make sure of constant proportionality between plate and grid voltage swings. The load resistance is that of the plate-grid resistance and the grid leak of the next tube in multiple.

4. If a battery of power tubes in multiple is employed, so that the grids constitute a considerable capacity load, or if any of the earlier valves have very high internal resistance, or are fed through very high plate resistances, calculation should be made of the magnitude of the capacity load at the highest frequency which the amplifier must handle. Owing to the simultaneous swinging of the plate potential, the effective capacity of a valve-grid may be several times the grid capacity as measured with plate and filament grounded.

The capacity reactance of the grid must be high compared with both the internal and external plate resistance of the previous valve, otherwise distortion may result, either because of reduced amplification of the high frequencies, or because the actual dynamic characteristic is steeper than estimated (lower impedance load), with resulting curvature.

With a common source of plate voltage for all of the tubes of a multi-stage amplifier, back coupling with consequent oscillations may occur through the plate supply line, if there is enough resistance in the supply so that the power stage plate supply current affects the voltage of the supply line materially. If such back-coupling occurs, the cure may be to secure a lower resistance supply or to reduce the variations in the voltage fed to the earlier valves, particularly the second valve preceding the power valves, by filters or potentiometer connections. The filters, if of series resistance and shunt capacity, must be effective at as low a frequency as the lowest at which appreciable amplification takes place. Therefore, the filtering is simplified by designing the amplifier not to pass any frequencies lower than really required.

To obtain a given voltage swing on the grid of the power valve may be easier with resistance connection than with an inter-stage transformer, in spite of the step-up ratio of the transformer. This is because even the best designed transformers drop to an impedance comparable with the valve resistance at high frequency owing to capacity on the secondary side, and at low frequency owing to magnetising current. This low impedance load on the valve may greatly reduce the plate voltage swing obtainable without distortion.



Dismal Desmond.

**"Dizzy" Back Again**

**D**ISMAL DESMOND, better known to his friends as "Dizzy" and to his acquaintances as G. W. Desmond, originally came to Australia with the famous Sydney "Strollers." For many years he toured with his own companies, but for some time now he has been working in vaudeville. "Dizzy" is a much-travelled man, and the fund of funny stories he has picked up in his wanderings make laughable listening for wireless enthusiasts. His first trip was to South Africa in 1906, and his last, starting from Perth (W.A.), took four years to complete. He visited Java, Straits Settlements, Federated Malay States, Borneo, Sumatra, Burma, Siam, India, Ceylon, Portuguese East Africa, Rhodesia, British East Africa, and the Belgian Congo. He eventually returned to London, and toured for Jack Waller, who was here a few years ago, and is now one of the leading theatrical managers in England. But the call of the sunshine was too strong for our genial friend, and he is now back in Sydney—his favorite city "next to London," as he expresses it—and he has already renewed old acquaintances with 2FC listeners. The opinion of one radio fan from Thirroul, "We all think you are A.1." is a fair estimate of the general regard in which he is held.

**Ernest M'Kinlay**

**E**RNEST M'KINLAY, the well-known tenor, is back in Sydney again, after adding considerably to his reputation abroad. Ellen Terry it was who advised him to go to the Continent to study, but first of all he went to France for a grimmer purpose, where he served for four years with the New Zealand Division. After the battle of the Somme, he had time to combine art and soldiering, and joined up with the N.Z. "Kiwis," a show which many thousands of "Aussies" came miles to see. "We did our best work in Nieppe in 1917," said Mr. M'Kinlay, "and later at Dickebusche, near Ypres, where we produced the pantomime, 'Achi Baba and the Forty Thieves.' We went to Paris twice, and with this pantomime made £400 in one afternoon at the Alhambra Theatre. Another success was the revue, 'Y Go Crook?' produced at Etaples in 1918, which we also repeated in Paris."

Mr. M'Kinlay had several years' tuition with Plunkett Greene, in London. After his return to New Zealand in 1919 he spent a year in hospital, and his first serious work was "Hiawatha," with the Auckland Choral Society, in 1921. Since then he has excelled

# The MICROPHONE

AT 2FC: Kurri Kurri Eisteddfod, "Peter Pan," Sydney Madrigal Society Concert. AT 2BL: Classic Hour, Sydney Calland, Bridge Opening.

in oratorio, and last year toured most successfully with the Westminster Glee Singers, with whom he did 177 concerts. Fortunately for us, the rigors of the Canadian winter forced him back to Australian sunshine, "which is the real thing," Mr. M'Kinlay enthusiastically acknowledges. 2FC have arranged a number of appearances, and he is singing on the evening of May 10.

**George's River Bridge**

**T**HE OFFICIAL OPENING of the George's River Bridge is to be undertaken by 2BL service on the afternoon of May 11. The ceremony will commence at 3 o'clock.

**Kurri Kurri Eisteddfod**

**T**HE FINAL CONCERT of the Kurri Kurri Eisteddfod will be broadcast by 2FC on the evening of May 11. The work of the competitors is of a high standard, and the evening's entertainment should prove very acceptable to listeners. On Sunday night a concert from the King's Theatre, Kurri Kurri, will be broadcast through 2BL.

**"Peter Pan"**

**B**ARRIE'S WHIMSICAL PLAY, "Peter Pan," is to be produced by Gertrude Boswell at 2FC studios on Monday night, May 13. One of the few works of its kind which never loses its freshness, there will be many listeners who will eagerly anticipate the production.

**O. Henry**

**C**. N. BAEYERTZ is giving a very interesting series of talks through 2BL service. On Monday night, May 13, his subject, under the heading, "Great Writers I Have Met," is O. Henry. It is no exaggeration to say a greater writer of short stories never lived, and Mr. Baeyertz's personal knowledge of O. Henry, of whom the man in the street knows comparatively nothing, should make a wide appeal to his admirers.

**Novelty**

**W**ILL AND BARBARA JAMES, novelty instrumentalists, are in Sydney for a short season, and will delight 2BL listeners with the many innovations they have introduced into their programme for Monday night, May 13. They will appear on Wednesday, Thursday, and Saturday of that week.

**Classic Hour**

**T**HE CONSERVATORIUM STRING QUARTET have arranged a classic hour for 2BL listeners on Tuesday night, May 14, and with them will be associated Yvonne and Nino Marotta, of the late Williamson-Melba Grand Opera Company.

**Travelogue**

**T**HE SYDNEY MADRIGAL SOCIETY'S CONCERT, to be held at the Conservatorium on the evening of Wednesday, May 15, will be broadcast through 2FC service. The work of this body is always welcome. Good choral music provides a pleasing interlude in the usual broadcasting programme, and the concert on Wednesday will prove no exception to their usual high standard. During the interval, Mr. C. Price Conigrave will give an Australian travelogue from the studio.

**Latest Song Hits**

**J**OHNN HOBBS, whose fine baritone voice has made him a great favorite with listeners, will be heard from 3LO on May 7, some of the latest songs just to hand from overseas.

**Famous Blind Pianist**

**G**EORGE FINDLAY, the blind young Melbourne pianist, who is so firmly established as a favorite with the concert and listening public of Melbourne, will give a recital of Russian works from 3AR on May 5. The programme has been thoughtfully selected, and will include excerpts from the works of Godowsky, Rachmaninoff, and Levitsky.

**Kingsley Parkes**

**K**INGSLEY PARKES, who has been associated with the Strad Trio in some excellent broadcasting programmes, will be heard from 3AR on May 5 in a short vocal recital, which will include Beethoven's "Minuette."

**A Talk on Gallipoli**

**A** TALK will be given from 3AR on May 6 by Mr. E. H. Harmon, the manager of the Welfare Travel Department of Burns, Philp, who will speak on "Gallipoli." Mr. Harmon has travelled extensively through the territory about which he will speak, and his graphic word picture of the district should commend the attention of listeners, especially at the present time, when "Anzac" is the uppermost thought in the minds of many thousands.

**Sydney Calland**

**S**YDNEY CALLAND is back in Sydney after a long and successful tour with Union Theatres, Ltd. He is singing at 2BL on Wednesday night, May 15.

**Light Comedy Music**

**A**N attractive programme of light music will be given from 3AR on May 11 by the station orchestra, under the direction of Frederick Hall. Overtures of some of the musical comedies that were so popular a few years ago have been selected, and a wide circle of listeners will enjoy the melodious "Miss Hook of Holland," "The Gypsy Princess," and "Two Little Girls in Blue." The ballet suite from "Henry VIII." is also included, and the orchestral items will be interspersed with vocal gems from the opera.

**Thelma Ready**

**T**HELMA READY and her banjo are always popular visitors to the broadcasting studio, and will be on the air from 3AR on May 6. Miss Ready is too well known to listeners to require any further introduction, while with her band she is a feature of the dance and entertainment world of Melbourne.

# PRESENTS—

AT 3LO: Schubert and Elgar music, "Out-back" programme, Bird Talk. At 3AR: History of Hymns. Blind Pianist. Light Comedy.

## Boat Race

THOUSANDS of rowing enthusiasts will welcome the news that arrangements have now been completed by 3LO to broadcast descriptions of the Victorian Public Schools' boat race on May 10 and 11.

## New Zealand Singer

JULIA RUSSELL, the favorite New Zealand soprano, is always a welcome visitor to 3LO, and will be broadcasting on May 6. She is a past graduate of the Conservatorium, and is well known in the New Zealand concert world, and, since coming to Australia, has become most popular in musical circles.

## Russell Callow

AFTER a considerable absence from the broadcasting world, Russell Callow, the at 3LO for a short season. As is generally known, Mr. Callow comes of a musical family, and owes much of his success to his mother, Madame Violet Callow, of Adelaide, who trained him from boyhood. His remarkable voice gained him early recognition, for at the age of 12 he was a fully developed baritone, and as such sang at the Adelaide Peace Exhibition. He was but 15 when he sang in the chorus of "The Little Dutch Girl" and "The Firefly," and has also appeared with Maurice Muscovitch in "The Merchant of Venice." At present he is appearing with "The Vagabond King" Company, and dividing his spare time between the concert stage and the broadcasting studio.

Russell Callow.



## The Sighing Serenader

JACK HOCKING the popular pianist and entertainer, is making a welcome return visit to 3LO on May 7, when he will be heard in a budget of new songs and old favorites. Billed as "The Sighing Serenader," Mr. Hocking has successfully sung his way through West Australia and Tasmania, broadcasting en route, and so popular was he in "the apple isle" that on one occasion his weekly post bag reached 150 letters, one coming from far-away Broome saying that every word had come through as clear as a bell. Mr. Hocking is a pianist of more than usual ability, has a pleasing baritone voice, excellent enunciation, and a saving sense of humor that enables him to handle a comedy number in just the right spirit.

## Citrus Preserves

HOUSEWIVES who are turning their attention towards the replenishing of their store cupboards, should not forget to tune in to the talk to be given on May 10 by Miss Knight, the fruit preserving expert to the Department of Agriculture, who will give a talk on citrus preserves.

## Grading and Packing Tobacco

UNDER the auspices of the Department of Agriculture, Mr. T. A. J. Smith, tobacco expert, will give a talk from 3LO on May 6 on "Grading and Packing Tobacco."

## Community Singing

UNDER the auspices of, and to aid the Collingwood Free Kindergarten Association, a fine community singing programme has been arranged for May 10, and will be held in the Collingwood Town Hall. Ern Hall, with his Radio Revellers, also Hugh Huxham, with his Dancing Peaches, will entertain, while individual artists include the popular baritone, J. Alexander Browne. The cause is one to be highly commended, a "full house" is expected, and listeners may anticipate a thoroughly enjoyable time.



Ina Morrison, pianist, who will be heard in a series of recitals from 3LO, Melbourne, early in May. Miss Morrison will play a number of her own works.



Madame Ella Kingston.

## Gems From Schubert and Elgar

MADAME ELLA KINGSTON, whose vocal recitals are always enjoyed by musical listeners, will be broadcasting from 3LO on May 5, in some gems from Schubert and Elgar. Madame Kingston is a gifted artist, and, when her musical education was being discussed, it was undecided whether the piano or voice should be considered. However, on the advice of several critics who heard her sing at the Norwich Festival, she commenced her vocal training, and, as an oratorio soloist, has sung at all the important musical festivals in England. She is well known to Australian audiences, and never fails to please.

## The History of Familiar Hymns

A MOST interesting talk will be given from 3AR on May 5 by Mr. J. Howlett Ross, who will give the history of some of the old familiar hymns, among which will be included "The Ninety and Nine" and "Onward, Christian Soldiers." All the favorite hymns that have stood the test of time, and are sung wherever the English language is spoken have a significant history connected with their composition, and a knowledge of the circumstances enhances the beauty of the words and the joy of singing. The talk will be illustrated by the Smith Girls, who will sing the various hymns included in the talk.

## Grandfather Ray

THERE is an interesting sequel attached to the talk on "John Ray, F.R.S., a Nature Student of the 17th Century," given by Mr. F. Chapman on April 6. Mr. Chapman received a letter from a descendant of this gifted naturalist, who is now living in Melbourne, and who said that much of the information broadcast was quite familiar to members of the family, but there were a number of facts that were quite new. The letter concluded by saying: "Two, at least, of the present generation, have a very decided love of botany, which is always attributed to the far-off influence of 'Grandfather Ray.'"

## The Vagabond King

ON May 11 the first act of the romantic musical play, "The Vagabond King" will be transmitted by 3LO, followed by the second act from 3AR.

## Bird Talks

THE "bird talks" given by Dr. Leach from 3LO are of intense interest to naturalists of all ages, and appreciative letters often come to hand from the most unexpected sources. For his talk on May 11 Dr. Leach will take the field wren and field larks—two familiar little fellows with fascinating habits.

## An "Out-back" Programme

A NOVEL and musical dramatic programme will be given from 3LO on May 8, which should greatly appeal to country listeners. The scene is laid in a shearer's hut, the time is in the evening, and the place is the "back of beyond." The central figure is the popular raconteur, Captain Donald MacLean, and several well-known artists will take part in the singing of time-honored songs and choruses. The true shearing shed atmosphere will be maintained, some clever mouth organ solos will be contributed, and the studio kookaburra, parrot, and dog, are in active rehearsal, so that they will be quite ready to perform their parts when called upon.

# Wireless Weekly

Incorporating "Radio in Australia and New Zealand."

FRIDAY, MAY 3, 1929.

## PROGRAMME TENDERS

**A**FTER many delays, contradictions, and hesitation, the Government has issued its specifications for the tendering of radio broadcast programmes. For months the public has been in a quandary as to what was going to happen, and the whole radio trade has felt the lack of definite action on the part of the Government.

The tender forms have apparently been released in Melbourne earlier than in Sydney; for, as we go to press, our only knowledge of the details is derived from a Melbourne source. However, a day or so in either capital is probably regarded as neither here nor there by Mr. Bruce, as the tenderers have all of three weeks in which to complete their tendering arrangements. Mr. Bruce, who undoubtedly knows all there is to know about copyright and programme arrangements generally, and who probably dismisses the hundreds of thousands of pounds involved as a mere consideration, may believe that three weeks is ample time, but to those who might have to bear the brunt of what subsequently proved a bad tender, it seems hopelessly inadequate. Mr. Bruce's position in the event of no tenders having been received within this time will be a difficult, if typical, one.

A less serious side of the tender requirements is the clause, "stipulating that the successful tenderer shall endeavor to cultivate a public desire for the transmission of educational items, musical items of merit, and generally for all items and subjects which tend to elevate the mind"—a clause providing against "monotony and the tedious repetition of items, and the prolonged use of an artist in a particular State," and the constitution of the Postmaster-General as a kind of censor, dispenser of motherly advice, and dictator of what shall be broadcast, at the tendering company's own expense.

Boiled down—what does such clause mean? Any reader could have made such stipulations in an absent-minded fit after reading our Safety Valve column. The implication of "high-brow" requirements will probably alarm many. But the real question is—Will we see finality in broadcast programme arrangements, will we see it soon, and will such a last be better than its first?

# The Psychology of Broadcasting

**F**ROM the pinnacle of popularity of wireless broadcasting in Victoria one can look back in wonder upon its remarkable development since its inception in Australia about five years ago. Beset in the beginning with the problem of supplying programmes to an audience which was then a doubtful potentiality 3LO realised that in order to entice people to listen-in it was and is always necessary to provide something worth listening to. As a genesis to serious broadcasting in Victoria grand opera, with Dame Nellie Melba in the role of Mimi in "La Boheme" was selected. Radio dealers will recollect the satisfactory results in trade of the announcement to this effect. Listening-in sprang immediately into popular favor, and the issue of licenses has increased rapidly and consistently ever since, until now 3LO is the most listened to station in the world in proportion to population. This is not supposition, but is based upon the fact that according to official statistics the quota of licenses per one hundred of population in Victoria is by far the highest in the world. There are nearly as many licenses in Victoria alone as in all the other States of the Commonwealth together.

For this extraordinary position of wireless in Victoria there must be a reason. The success of any form of entertainment depends upon definite psychological principles, and it does not matter how perfect technically a programme may be, if it is not to the liking of the public, then assuredly it will be a failure from the point of view of popularity. There are two extreme classes of listeners—the so-called "highbrow" and the "lowbrow." The one is deadly anathema to the other. Fortunately, however, neither represents a very considerable number of license holders, but in between them there is the huge army

of enthusiastic and satisfied listeners who are reasonable in their requirements, and with whom wireless broadcasting has become an indispensable service, and in many cases of isolation and illness a veritable godsend.

Nevertheless, in supplying broadcast programmes all classes must be considered and catered for, and it is surprising how very popular old classical music is becoming, and conversely how many "highbrows" are beginning to "discover" melody in some of the modern jazz numbers.

Tschalkowsky, Bach, Wagner, Mozart, Chopin, Mendelssohn, Schubert, and other great composers are listened to more now than ever before and the lovers of jazz are demanding more melody and symphony in their syncopations. Many claim that by broadcasting listeners are able to discriminate true values, with the result that recently there has been observed a decided tendency to refinement in musical taste—a departure from the post-war barbaric influences which had such a revolutionary effect upon dance music throughout the world.

In preparing their programmes several weeks ahead the directors of 3LO have studied closely and with great success the psychology of listening in, and they have learned to please the big majority of listeners-in. One hears criticism, of course, and there has been much written about programmes by persons who have not the faintest idea of the requirements and the difficulties, but in spite of all this the big army of satisfied listeners from whom we seldom hear continues to grow and the world's record quota of licenses a Victoria continues month by month to increase. This is surely an indication that the old maxim applies: "The proof of the pudding is in the eating thereof."

## Selling the Old Set

No. 3





**More Relays**

Dear Sir,—The point I wish to emphasise is—why not more relays? The question of relays is a very important one. No doubt, many listeners have from time to time heard, through the medium of the local stations, PHL and 5SW. These two stations provide excellent programmes on their short wavelengths, and only those people of an experimental turn of mind, and with a receiver specially built for the purpose, are able to receive them. The other morning I heard from 2BL a portion of the previous evening's programme from 2LO, London; needless to say, it was very good, indeed.

Indeed, I am a low-wave fan myself, and I have heard programmes from London and America which were more than fit to relay. The best American received here, at this time of the year, is KGO, California, and the programmes are certainly well worth while, besides static is not as prevalent as it was a few months ago. England, 58W, is putting over the "goods" on 25 metres, and is absolutely static free on most mornings.

There are at least two stations we could hear from 2BL during its early morning sessions, and I feel sure that listeners would be more than pleased with their programmes. Write in and give your opinions.—Yours, etc. Alexandria. MICRO WATT.

**Country Dance Programmes**

Dear Sir,—I wish to make a suggestion regarding broadcasting programmes, and trust that should you agree with me you will endeavor to have it put into effect.

Country listeners would, I think, be more than pleased if one of the "A" stations put over the air dance music from 8 p.m. to 11.30 p.m.—say, once a fortnight during the winter months. If listeners knew for certain that dance music would be played on certain dates, they could make their arrangements beforehand.

I have here an 8-valve Udisco, and it would give pleasure to many if dances could be arranged in the local hall. 2FC and 4QG are the stations which come in best on my set, using a loop aerial.—Yours, etc. Nambucca Heads. K.G.M.B.

**News Sessions**

Dear Sir,—The best station in this locality for daylight reception is 2BL. The daily sessions most appreciated by me—and I feel by thousands of other country listeners as well—are the news sessions, but these, to a great extent, are marred by (a) Unpunctuality, (b) Waste of time by mixing personal explanations with news.

I am sure that many country listeners only use their sets during the day for news, and possibly you can imagine how disappointing it is to rush in from work, switch on the wireless at the published time, and get something else, not knowing whether it is just over or coming in one minute or ten. Anyhow you can't wait, so you give up in disgust. Imagine this during the last fortnight, when the fate of the Southern Cross was unknown.

Readers are urged to express their opinions on matters pertaining to broadcasting. If you have some grievance, if you have some constructive criticism to offer, here is your chance for expression—your safety valve. The editor assumes no responsibility for statements made by readers and published on this page, as opinions of correspondents do not represent our editorial policies or beliefs. Anonymous letters are not considered.

I am sure that thousands were often disappointed.

With all humility to the management of 2BL, I would say, please:—

1. Commence the news sessions punctually at the time published.
2. Give news direct from paper without any personal explanations, which often waste time.
3. If 1 and 2 are impracticable, give us a news session at night—say, 9 o'clock or 10 o'clock.
4. Return to 8.15 for morning news, if possible.—Yours, etc.

Bodalla. COUNTRY LISTENER.

**Orchestra Incomplete Without Banjo**

Dear Sir,—Reading in "Safety Valve" Lewis Hazell's somewhat rambling criticism of J. J. Vincent's love of the banjo, I would like to say something to Mr. Hazell.

In his letter he never stated his preference as to musical instruments, but if his love of music is as highly-developed as his criticising abilities, I should think his favorite instrument is a 1/3 mouth organ.

Of course, there is a time and place for musical instruments, as well as everything else. I think that no orchestra is complete without a banjo, and as an accompanist for a snappy song nothing could be better. On the other hand, one could hardly imagine it accompanying anything classical. As regards his apparent abhorrence for descriptions of horse races, I suggest that, whilst these are being given, he produce his mouth organ and some real music (?), and not interfere with the enjoyment of thousands of lovers of a good horse race—the Sport of the Kings. I am surprised at Mr. Vincent thinking that Mr. Hazell was an old man; I thought, before reading half his letter, that one of Uncle Sam's letters had sneaked into "Safety Valve" by mistake.—Yours, etc. Dubbo.

L.E.B.

**Bridges Ahead**

Dear Sir,—When you have a grouch against any public service or institution write to the press; when satisfied you do not take up the space usually occupied by grumblers. That, to me, appears to be the attitude of most of those who get into the Safety Valve.

But I, for one, have no grouch against this particular public service, i.e., broadcasting. Quite the reverse, and I am a real back-block, although 500 miles approximately is the air line to the six "A" class stations. Of course, there are at times items in the programmes which do not appeal to one, but I do not overlook my neighbor next door (40 miles away). His tastes probably differ to mine.

Now this is the point. The man nearest to all the pleasures, or most of them, appears to be the grumbler, and the least tolerant. This man's outlay is usually a great deal less than the countryman's, when it comes to installing a receiving set. I think that managers generally are to be complimented upon their programmes.

2FC carries out a splendid idea over important events of which later news is to be given. They state the time when the next message or announcement is to be made. 5CL has good evening news items. If 3LO gave a little more news at night it would be appreciated. The daylight reception, frequently not good out back, hence the suggestion.

One is frequently told that licenses in the metropolitan areas in proportion outnumber the country licenses. Perhaps they do. Cost plays its part, but in my opinion radio in the country is a permanent thing—a necessity, in fact—whilst in the city it is more or less a novelty. I know folks who only use their sets on their neighbors when there is nothing else to do, or place to go. Therefore, I contend that managers and the directors of the companies should at all time be mindful of the countrymen's requirements.

I understand that there is still a chance of the Government taking over the "A" class stations. Well, that is something to think over for anyone who contemplates buying an expensive receiver. If the Government enterprise in the past is any criterion of its enterprise in the future, well, this one voter opines that broadcasting will go to the pack.

I imagine the Nationalists in power. Guess most of the time would be taken up describing the movements of the Prime Minister or his Treasurer; on the other hand, Labor in power, not only would its leader get his share of publicity, but then there would be all those Trades Hall officials, etc. ad lib., 'nuff sed!

U.S.A. finds its present arrangement O.K. Evidently Britain ditto. Why does Australia wish to experiment? Of course, 4QG is Government controlled, but then it has to keep up to the mark by working on the lines of its contemporaries. Well, "don't cross your bridges before you come to them" is a good idea, so I intend to continue enjoying the excellent programmes provided by both "A" and "B" stations when I can get 'em.—Yours, etc. Farina. Q'land. "QUAKOO."

# Programme Standard Will Not Drop

*The last programmes will be good programmes. That is the definite decision of the N.S.W. Broadcasting Co., now drawing towards the close of their broadcasting license. That the programme standard of the past will not drop in the last few months is shown by the formidable list of new features below.*

**T**HE New South Wales Broadcasting Company, through their stations, 2FC and 2BL, have arranged some very important broadcasting between now and the expiration of their license in July. Undeterred by the knowledge that their activities will cease when the licenses of 2BL and 2FC expire next July, they have gone vigorously ahead to secure as much valuable material as possible.

The outstanding feature in May is, of course, the great Radio and Electrical Exhibition in the Sydney Town Hall, from May 1 to May 11. The company has to provide 20 separate programmes, all of which will be performed on the platform of the Town Hall and broadcast from there. A galaxy of talent is awaiting the patrons of the exhibition, and as arrangements have been made to install loud speakers right throughout the Town Hall it will be possible for every member of the audience to enjoy the various items.

## COUNTRY CONCERTS

Following the desire to open up as many country centres as possible to the wonders of wireless, a number of entertainments have been arranged which will be broadcast from country centres. Following on the concert in aid of the Wollongong Hospital, which will be broadcast from that town on April 29, a Sunday night programme is set down for May 5 from the Trades Hall, Lithgow; the profits are in aid of some worthy local charity, and 2FC will be entrusted with the broadcasting. Then, on May 7, the same station will broadcast the concert by the Goulburn Choral Society, and the well-known Sydney pianist, Alexander Sverjensky, has been engaged for this evening. On May 11 the finalists in the Kurri Kurri Eisteddfod will be heard, and the choral competitions at this eisteddfod always bring forward a number of very fine choirs, so that this programme should be appreciated. On the following night a sacred concert from the King's Theatre, Kurri Kurri, will be transmitted.

## STUDIO PRODUCTIONS.

Following the success of the studio productions of "Maritana," "The Bohemian Girl," "Les Cloches de Corneville," "The Geisha," "The Arcadians," "Floradora," and many other well-known and popular comic operas, arrangements have been made for a studio production of "Paul Jones," conducted by Leo Packer, and the first act of "Il Trovatore," by Harry Sherlock and Madame Emily Marks. These are set down for May 27 and June 3 respectively. These studio productions entail a lot of work. There is a chorus to be rehearsed, an orchestra, and the various principals, and the careful way in which these producers have taken on the arduous task is rewarded in the smooth-running productions which have been a feature of both 2FC and 2BL during the last few months.

## CLASSICAL PROGRAMMES

The two Sydney "A" class stations have, since January, been carrying out their somewhat daring scheme of presenting regular weekly classical programmes. No other stations have embarked on such an arduous scheme, but through careful co-ordination it has been made perfectly clear to listeners that when one station is devoting the whole evening to a highbrow programme the other station is sending forth items of a more popular nature, acceptable to the majority of listeners. It is common knowledge in broadcasting circles that lovers of classical music are very slow in acknowledging the pleasure that these programmes give to them. Transmit a steel guitar solo, and a hundred appreciative letters rush in; put over a humorous sketch, and from all quarters come congratulations; but give up serious thought to rehearsals and pay high fees to our leading professors of music to present the best they have to offer, and a broadcasting station feels rewarded if two or three comments in appreciation are received. From now to the end of June every Wednesday night 2FC will continue with classical programmes, and on Tuesday night 2BL will present their classical programmes, with alternating popular programmes from the other station. In addition to these classical programmes lovers of good music will welcome the orchestral concert to be given in Sydney on the evening of May 5, when the Polish Association—to commemorate their national anniversary—will present a very fine concert. The Rose Bay Music Club promises special features of importance on the evening of May 21, and the Welsh Choral Society on June 8, from the Conservatorium, will broadcast, for the first time, "The Banner of St. George."

## STUDIO PLAYS.

Arrangements have been completed for

productions for the first time on the air scenes from "Otello," Barry's "Peter Pan," and Maeterlinck's "Bluebird." Miss Stephanie Deste has been entrusted with the production of "Otello," and she will also do some excerpts on Sunday night from Shakespeare. Miss Gertrude Boswell, recently returned from America, where she has been playing with Guy Bates Post, will be given the production of "Peter Pan" and the "Bluebird."

## APPRECIATION OF GOOD MUSIC.

A listener from Quirindi writes as follows to the manager of the New South Wales Broadcasting Company:—

"I wish to congratulate you on your enterprise and foresight in engaging some of Sydney's leading musicians to interpret reputable music with intelligence and artistry. It is a boon, especially to country folk, to be able to listen to good music as we have of late. My only regret is that the intervals between them are so lengthy. I hope that in the near future you will be able to arrange more programmes, such as these excellent musicians have given us lately."

# SESSIONAL NEWS

## Mr. Norman's Session

**F**ROM six hundred to seven hundred boys accompanied Mr. Norman on his Garden Island trip, which lasted from 9.30 to 11.45 on Saturday week. The authorities provided a guide; and the company inspected the island—the turbine, moulding, black-smiths', boiler-makers', electrical, and torpedo shops, the semaphore mast (the semaphore went mad for half an hour), and the transmitting station; and saw all the island's curiosities and antiques. Mr. Norman was exceptionally pleased with the behaviour of his charges, whose interest was keen.

It has been arranged that a party shall visit Leyland's motor works on May 11. Many among Mr. Norman's listeners have shown anxiety to see motor-cars in the course of assembly. The meeting-place is the park in Australia Street, Camperdown, opposite Leyland's motor works, at 9.30 a.m. Essays will be invited from the visitors, and prizes given.

Arrangements are complete for a weekly Boy Scout Session from 2BL. The Governor will open this session, and the Hon. Chief Commissioner, Mr. Trenchard Miller, will talk to his Legions. A troop of Boy Scouts will be at the studio to give a war cry, which has never yet been broadcast. The session should prove one of the most useful and interesting in the history of Australian broadcasting. It will enable the association to keep in constant touch with its members. Talks will be given from time to time by the Deputy-Camp Chief, Mr. Hartley MacAlister, who will detail coming events. It will

show boy listeners what the Scout Association stands for. And, as Mr. Norman puts it, the session will bring before the public the fact that "a boy in the bush is worth two in the gutter."

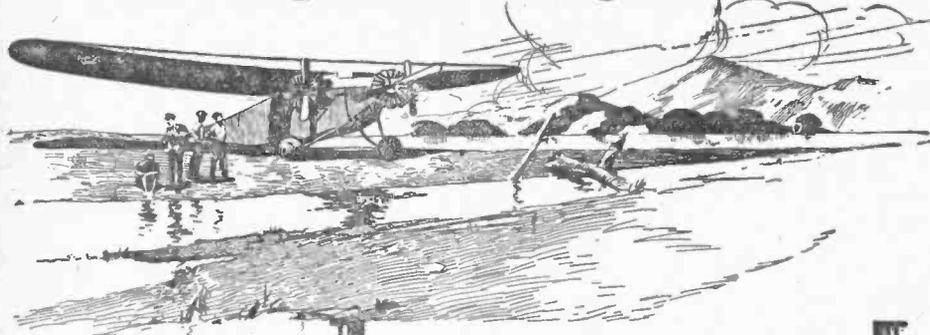
## Miss Gwen Varley's Session

**I**NDOOR clubs for winter afternoons have been considered by the 2BL Women's Amateur Sports Association Committee. Miss Varley's suggestion of bridge and handicraft classes has been hailed with enthusiasm by many listeners. As a result a Bridge Club has been formed, with a membership of forty-six. The club meets every Wednesday afternoon, from 2.30 to 5 p.m., at 11 Rose Street. The services of five professional bridge teachers have been secured, and classes for beginners and improvers are in full swing. The fee is ten shillings per month. Afternoon tea, served during the play, helps to make the meetings sociable.

Handicraft and needlecraft classes have been formed, and meet on Friday afternoons. Mrs. T. C. Morton, one of the association's vice-presidents, instructs a group of ladies, free of charge, in the art of needlework; while Miss J. M'Kee is discovering the mysteries of batik, raffia, and wood-carving in another group of ladies in the same club room with the needlework class, at 11 Rose Street. Membership in the handicraft class costs ten and sixpence per month.

These two innovations have brought in another sixty members to the 2BL Women's Association; and are proving useful to many women.

# Marooned



Clyde 6 Volt Radio Assembly.



Clyde 4 Volt Radio Assembly.



Clyde Heavy Duty 2 Volt Radio Cell.

THROUGHOUT long days—marooned far from human ken, one comfort yet remained to the crew of the "Southern Cross." Radio brought them news of the outside world and kept them informed of measures taken for their relief.

The vital life current for the filaments of the radio receiving valves was supplied by CLYDE BATTERIES, which were selected for their long life and high capacity.

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Clyde Batteries for Radio, Cars, and Home Lighting are made by THE CLYDE ENGINEERING CO., LTD., GRANVILLE, N.S.W., largest manufacturers of storage batteries in Australia. Obtainable at all radio dealers and garages.

In addition to CLYDE STORAGE BATTERIES, the radio installation of the "Southern Cross" included BURGESS DRY BATTERIES and OSRAM VALVES.

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## Economic Radio Stores

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Can Build  
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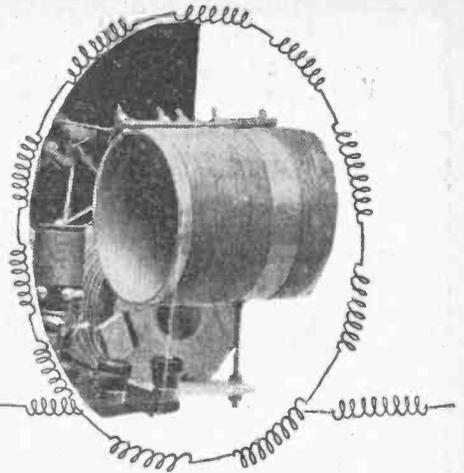
### PARRAMATTA

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Macquarie Streets.  
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### ORANGE

120A Summer Street.  
'Phone, Orange 735.

# Coils and coils



By DON B. KNOCK, Associate Technical Editor

Although home-made coils are not always as efficient or as cheap to make as the manufactured product, there are many hundreds of radio fans who wish to make their own coils. This article is for those readers.

**C**OILS . . . Coils . . . Coils! If some of our readers could look through our mountainous heap of queries (still filling the basket as fast as they are taken out) they would perceive that the greatest percentage of inquiries run something like this:—"Your — receiver takes my fancy, and I intend making it up. I have the necessary knowledge to make my own coils for this, and while no doubt the commercial products as used in the original cannot be my own gear wherever possible, and, therefore, ask if you will be kind enough to supply, through the information columns, the size of former, gauge of wire, and number of turns, etc., for this receiver."

This is a common request—we get thousands like it—and would be only too pleased to answer them on the spot but for the fact that such details given through the information columns would occupy more space than

Remember that a flour duster makes an ideal metal screen for your home-made coils. Coils enclosed by these screens should have an external diameter not exceeding 2 inches. The photograph shows how the screw top is used as the base mounting, with the metal can screwed into it in an inverted position.

can be spared. It is really important to show a sketch of a coil when explaining in detail its construction. Otherwise there are many readers who are not able to grasp the verbal explanation, who would be sure to make mistakes in windings or tappings.

When a receiver of a fairly complicated nature is described, and manufactured coils are used as specified, details of the coils are not usually given with the article, for the reason that the reasonable price of the commercial product makes home-made replicas not worth the time and trouble taken, and we can always be certain that the manufacturers' product will not give trouble. Those who have made such coils as used in the 1928 Solodyne, or coils for short-wave work where a screen-grid R.F. valve is coupled through an air-spaced primary will no doubt bear me out in this, as such coils are not by any means easy to make.

But every new enthusiast likes making his own coils. I was a new one myself once, and cherish memories of the first coils I made. In the days when broadcast telephony was unknown. Some were about 2ft. in diameter, or even larger, wound on a ladies' circular cardboard hat box, and one at least was wound on a rolling-pin! Then there were the massive drain pipe loading inductances to increase the aerial tuning high enough to get up to the old Clifden station in Ireland on his 9000 metre spark wave. If only we had known of even the old honeycomb coil in those days we should have been saved a lot of time and trouble, but most of the fascination was in the making of those coils.

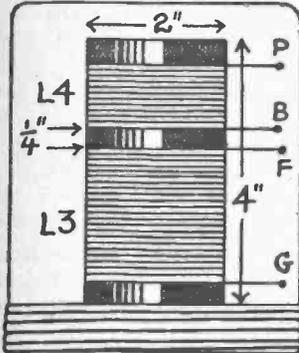
At the same time, do not get the idea that the honeycomb coil is entirely defunct because I refer to it as old. As a two-pin mounting arrangement with swinging reaction, its place is gone, but do you realise how easy it is to make up a good little Reinartz receiver by taking the coils off their original mountings and connecting two of them in series, with the mid connection as

the filament return? They will give as good a performance as any other Reinartz coil, and, if anything, are sharper in tuning! Condenser control of the reaction is, of course, used instead of the former movable reaction coil.

In fact, for a Reinartz receiver, a coil may be hurriedly scramble wound in a few minutes, and it will work quite well, but it does not look nice, nor is it likely to keep its turns indefinitely in the same position, with the result that sooner or later the calibration will be upset. In these days it is important to make all coils of a permanent nature so that they will be moisture proof and immune from sea air action, and it is no more difficult to make coils like that than to just throw them together.

Thoroughness should be one's motto in life, and in no instance is this more necessary than in wireless work. As I have said before, the economy is doubtful in making your own coils for just one or two receivers when there are accurate commercial products to be had, but where the home constructor wishes to do his own designing or try out

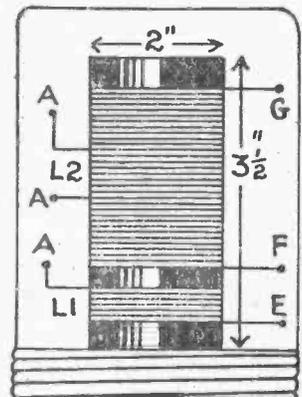
## FLOUR DUSTER SCREEN



L3 = 70 TURNS of 26 D.S.C  
L4 = 30 TURNS of 30 D.S.G

"THE PENTAVOX"

## FLOUR DUSTER SCREEN

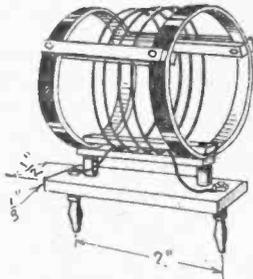


L1 = 14 TURNS OF 26 D.S.C  
L2 = 90 TURNS OF 28 D.S.C  
TAPPED AT 30<sup>TH</sup> & 50<sup>TH</sup> TURN

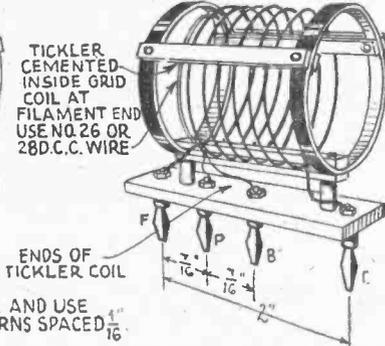
"THE PENTAVOX"

# ATTENTION MUST BE PAID TO SPACING OF WINDINGS

L1 - R.F. COIL



L2 - DETECTOR COIL



COILS ARE 2" IN DIAMETER AND USE NO. 16 ENAMELLED WIRE; TURNS SPACED  $\frac{1}{16}$ "

ANTENNA COILS	CORRESPONDING DETECTOR COILS
COIL A: 16-32 METERS-4 TURNS	COIL A: GRID, 3½ TURNS; TICKLER, 3 TURNS
COIL B: 26-48 METERS-8 TURNS	COIL B: GRID, 7½ TURNS; TICKLER, 3 TURNS
COIL C: 46-90 METERS-19 TURNS	COIL C: GRID, 18½ TURNS; TICKLER, 4 TURNS

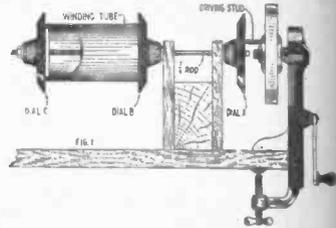
NOTE: MOUNTING STRIPS FOR COILS 'A' AND 'B', ½" LONG; COILS 'C' 3" LONG.

any circuits of his own, or adapt existing circuits to new types of valves, it is important that he should know how to make his own coils properly.

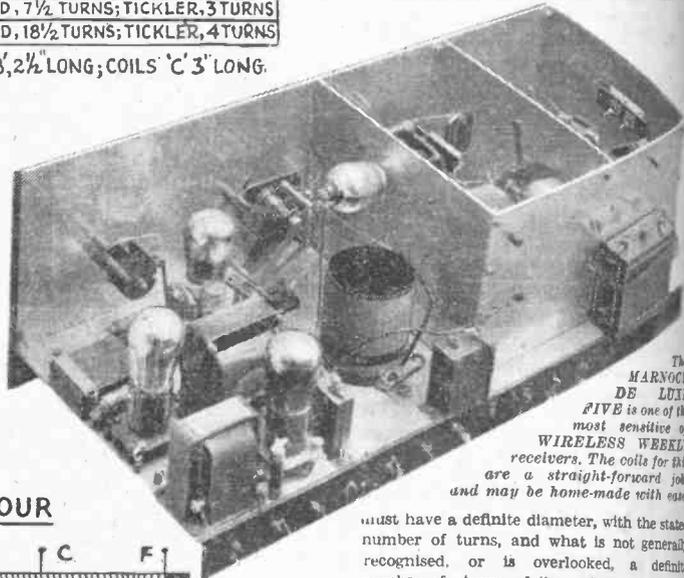
It is natural that the easiest kind of coil to make is the single layer Solenoid, and at the same time is a coil which is considered to possess the highest all-round efficiency. You will notice on examining many commercial products that the turns on these coils are space wound. This spacing is generally about the thickness of the wire itself, and is only usually applied for the secondary circuit. The spacing provided by the insulation of cotton or silk itself is quite sufficient, and for a coil to tune over the broadcast band of wavelengths with a diameter of two to two and a half inches, the secondaries may

invariably be wound with No. 26 D.C.C. or D.S.C. copper wire close wound.

It sounds easy enough to say: "Wind a single layer coil with so many turns, etc but it is surprising how little differences will make big changes in the value of inductance. When you see specifications for home-made coils, those specifications mean that the coil

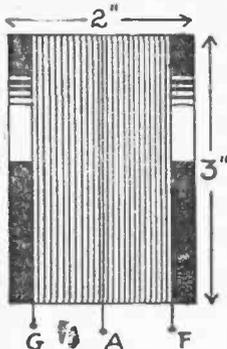


A winding rig, using a tool grinder, geared about 15 to 1, will speed up work for those who expect to make coils frequently.

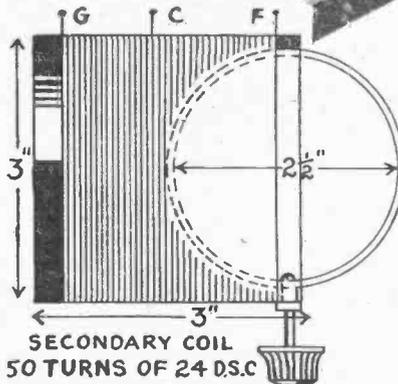


The MARNOC DE LUIE FIVE is one of the most sensitive of WIRELESS WEEKLY receivers. The coils for the are a straight-forward job and may be home-made with ease.

## "EVERYMAN'S" S.G. FOUR



AERIAL COIL  
60 TURNS 26 D.S.C  
TAPPED AT 30.



SECONDARY COIL  
50 TURNS OF 24 D.S.C.  
TAPPED AT 20<sup>TH</sup> TURN  
FROM GRID END  
REACTION COIL = 25 TURNS OF 26 D.S.C.

must have a definite diameter, with the stated number of turns, and what is not generally recognised, or is overlooked, a definite number of turns of the wire to the inch. The constructor may start to make a coil to correspond with instructions, and, although he may finish with the right diameter and the right number of turns, the total winding may be spread out over a far greater length than intended.

As a good guide, one may take it that No. 26 D.S.C. copper wire will wind 42 turns to the inch, but if the winding is done loosely, with the result that there are probably only 36 turns to the inch, the coil with its specified tuning capacity will fail to tune up to the higher range of wavelengths for which it was intended.

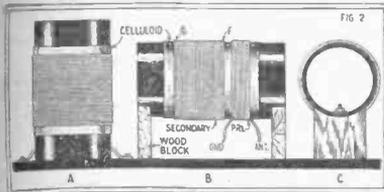
This effect may be more readily illustrated in a short-wave receiver. Make yourself a temporary coil to fit the existing grid and reaction mounting, leaving the wire close wound on the coil former, but with the turns fairly loose. Tune in a known station, and then remove the coil, and with the fingers pull the turns apart so that, although the coil has the same number of turns, they are now spaced. You will have to go a long

# DURABILITY INCREASED BY CEMENTING OR DUCCOING COILS

way up the dial to find that station again, and in all probability it is right off the range.

What has happened is that the spacing of the turns has considerably reduced the inductance value, thus raising the frequency a great deal. Although this is so much more noticeable with short-wave reception, even on the normal 200 to 500 metre broadcast range, it may become very annoying if the coils are of the slipshod kind, with loose turns slipping about.

If you are starting to wind a Solenoid coil it is often found troublesome to get each turn close together, especially if the wire runs unevenly off its reel. A simple expedient is to wind the wire on fairly closely but not too tightly, and then work it round with the fingers following the spiral of the

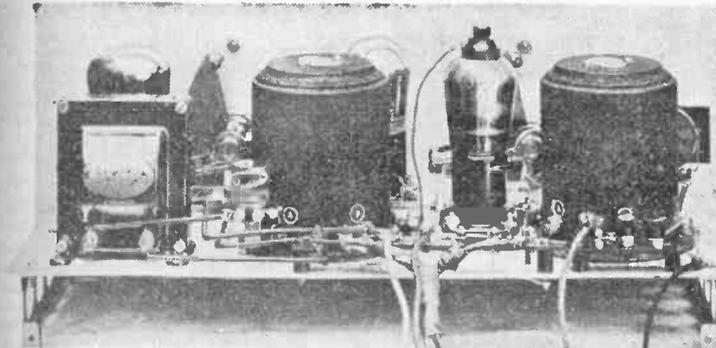


Unless completely shielded, coils should be mounted at right angles to each other, and several inches apart.

winding. When this is done the coil may be made secure at the required number of turns.

At this point most constructors will consider that the job is done and the coil complete. Under certain conditions this would be so but in order that the coil may be made durable, and that the windings may be held permanently in position without danger of slipping, it is necessary to use a good harmless cement.

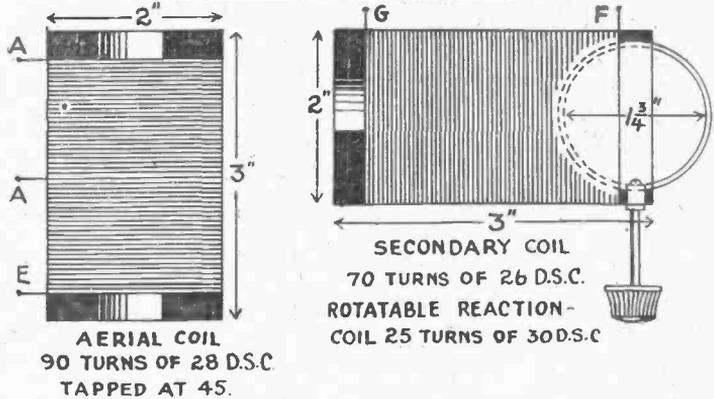
One of the best for this purpose is Duco



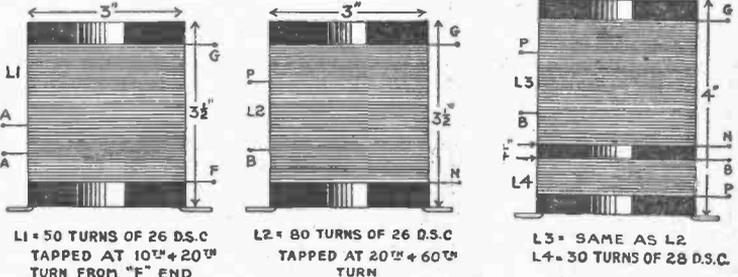
The back view of the PENTAVOX. This receiver gives a multi-valve performance in distance and audio quality, although only three valves are used. Coils for this set may be very easily made and shielded by the use of four dusters as explained in the article.

(exactly the same varnish that you see on the multi-colored bodies of glistening automobiles), which can be obtained in any color if you are faddy about it. The coil will work just as well whether the coil is doped with vermilion or sky-blue; plain black or green are, of course, the least aggressive colors for the purpose. If a transparent dope is preferred it is a very easy matter to make your own by obtaining from the chemist some amyl acetate and dissolving celluloid

## "BROWNING DRAKE" S.G. FIVE

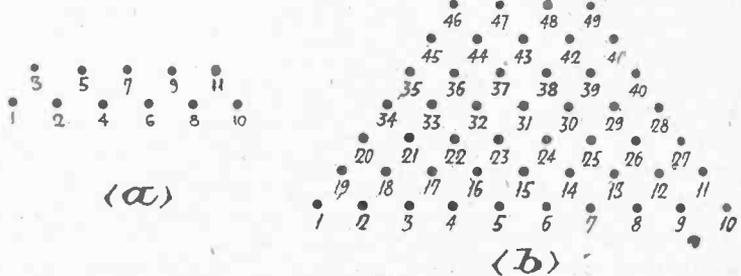


## "MARNOK" DE LUXE FIVE



in it. As an alternative, ordinary ducco may be thinned down with amyl acetate, as it is really too thick for the purpose.

The reason why the cement should be of thin consistency is so that it will soak into the insulation and down on to the surface of the former instead of only on to the wire itself. In making up such a solution, use about six square inches of sheet celluloid (the motor car side curtain kind) and dissolve this in about an ounce each of acetone and amyl acetate. The thickness of the solution depends on the amount of celluloid used. One way of making self-supporting Solenoid coils is to wrap round the bakelite, or hard rubber former, a piece of sheet celluloid, with an overlap of about one-eighth of an inch. Cement the overlap and then wind on the coil, afterwards cementing the turns to the sheet celluloid. When it is dry, the complete coil may be slipped off the former.



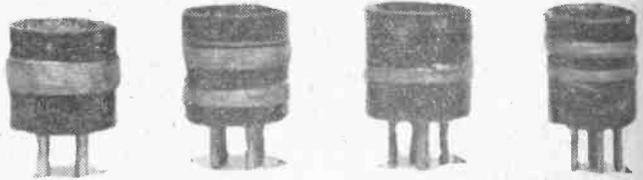
Bank winding details.

The disadvantage of coils of this kind is that they are usually difficult to mount, and as it has been definitely proved that the presence of a bakelite or hard rubber former does not lower the efficiency of the coil enough to be any detriment in radio work, the self-supporting coil is to-day not worth the trouble.

It will not require much practice before the constructor is able to make his own coils easily and efficiently with the materials on hand. Hand-winding after a while becomes a tedious business, and it pays the man who does a deal of this work to rig up a little hand-winder. An accompanying diagram shows how, with the aid of a geared hand-ginder, a length of rod with nuts, and some old plain dials, a simple little winder may be constructed. In addition to this, it is worth paying a visit to a tool store and buying a revolution counter so that a coil may be crickly wound without the necessity of keeping a mental note of the turns.

As mentioned before, 26 gauge D.C.C. or D.S.C. copper wire is a good standard size for secondaries, but for primary couplings finer wire, such as 38 D.S.C., should be used. The advantage of this is that it may be so placed that its capacity in relation to the secondary is very small.

The best way to place a primary coupling



THE coils for the short-wave enthusiast. The bases of your old valves make an excellent former for winding short-wave coils to cover a range from 5 to 100 metres. By the simple process of bank-winding a very fine gauge wire, coils may be made to cover the usual broadcast range from 200 to 500 metres when tuned with a .00015mfd capacity. The virtue of these coils lies in their compactness and indestructible nature, and, with valves as used to-day, they confound the old "Low Loss" theory.

In relation to the secondary is by winding it on a former about a quarter of an inch smaller in diameter than the one on which the secondary is wound, and locating it inside the secondary former under the filament end. Remember that the smaller the coil the less is the stray magnetic coupling, but no matter how small the coil, unless it is completely shielded, it should be mounted at right angles to the next, and several inches apart.

The diagrams given with this short article give the winding details for coils as used in some of the more popular of the "Wireless Weekly" receivers, a good standard data for short-wave coils, and an illustration of what is meant by "bank winding." Let me hope in conclusion, that those who prefer to make their own coils throughout will find sufficient to keep them interested by these brief instructions.

## "The CAPTAIN" to HIS "COMRADIOS"

### Coming Events

FRIDAY and Saturday, May 10 and 11: G.P.S. of Victoria Head of the River, heats and final.

Saturday, June 1: Australian University Chamption Eights, on the Yarra.

Tuesday, 18th June.—School Clubs, Ltd., dance, at the Ambassadors.

Wednesday, June 26: Scots' College O.B.U. annual dance, at the Ambassadors.

Wednesday, 26th June.—Old Sydnelians Dinner, at Ushers, 7 p.m.

Wednesday, 7th August.—Old Sydnelians Union Dance, at the Ambassadors.

Dates should be sent to "The Captain" at least a month ahead.

### Is the Race Too Far?

I STILL think it is. Many of my correspondents agree with me and a few agree to differ. I leave the discussion with the evidence of this years' races for the Head of the River still fresh in everybody's mind. And it seems to me that my point is carried. I have the utmost regard for those who have urged that past performances over the mile and a half have apparently done no harm. There is the current in the bun—"apparently." Is there real evidence on the point? Are there no cases of boys who have had to give up rowing, and even other games which call for strenuous effort, because of their great endeavors in the school boat? Surely, if even one such case can be given, it calls for care and prevention of over-strain in the future. After all, rowing is a sport.

### Safety First

NO sport should be allowed to have any effect except one of physical benefit. Always must we remember that no sport makes such a call on bodily endurance as does rowing. In other games a boy may halt when exhaustion makes itself felt. As a member of the crew he must keep on or the boat stops and turns over. So often he keeps on just when his heart and lungs have been strained to the utmost. That is just where the sport of rowing may become a tragedy. The boy breaks down, and he is, indeed, fortunate if his health is not seriously affected for the remainder of his life.

(Being notes from the happy personal chats to past and present schoolboys and schoolgirls and their parents all over Australia and New Zealand. Conducted by "The Captain" every Sunday morning from station 2FC, Sydney.)

### Personal

LETTERS have been received from J.S. (Gremorne), B.J. (Cronulla), L.B. (Newcastle), M.N.T. (Kogarah), A.B.G. (Parramatta), S.M. (Bullid), S.D. (Lindfield), "South Coast," F.T. (Bulladelah). These are personal notes, to which I have replied personally. All other requests for information will be answered over the air. Letters should be signed, but "The Captain" never gives names during his session, except the names and addresses of secretaries of old school unions, etc., where it is important for listeners to know how to get into touch with school functions.

### Football

THERE is little to choose between the products of any first-class manufacturers of footballs. This answers T.M.P. (Coogee), and many others. The only way to judge whether a cover has been properly and evenly made is to see it filled out tightly by a well-inflated bladder. My advice to any boy buying a football is to have it filled and laced ready for play in the sports shop. Just because it is a bit bulky to take home under your arm should not be a reason for possessing a badly-shaped ball. That sounds like "swank" to me!

### Treatment for Football Cover

THE hide overcoat of a football should be made as waterproof as possible, without adding to its weight. The best way I know is to rub vaseline or petroleum jelly, practically the same thing, into the cover. Use a lump of cotton wool for the purpose, and then wipe the vaseline off again. Of course, you cannot rub it all off, and what remains will keep most of the wet from soaking into the leather. Once a week, if the ball is used daily, or once a fortnight otherwise, will be ample to keep the ball in good condition, and greatly add to its life.

### To the Wounded

THERE is nothing better or safer for a bruise or cut, caused in the rush of the game, than a few gentle dabs of iodine. Have a weak solution of iodine made up by a chemist for the purpose. It is not safe to use it too strong, as so many people do carelessly. C.W. (Longueville) asks about it. The scratch, cut, or bruise should be gently washed clean in warm water, and thoroughly dried before applying the iodine. The sting from the first contact of the iodine is very slight, and quickly passes away.

### The Captain's Book List

THE following Australian books have "The Captain's" special recommendation:—"Dognose" (J. H. M. Abbott), 3/6. Fine school yarn, received last week. "Miss Billy" (Constance Mackness), 3/6. A most interesting story for girls up to, say, 15 years of age. The tale of Willa, from a small girl on an outback station, to the time when she comes to Sydney, and finally completes the lovely romance of her life on the great boat, which carries her and Billy away to Queensland, will be most popular with the younger girls. "The Black Star" (Andrew H. Waipole), 3/6.

The title and the author are quite sufficient to catch the attention of any schoolboy. Here is a school yarn, simply packed from cover to cover with pranks, fun, and adventure. I recommend it to all younger boys (up to about 15 years, especially), but I thoroughly enjoyed it myself, and it is a long time since I was 15, even if I do feel about that old at times!

### An Australian Poem

A BOOK not so easy to buy nowadays as "Backblocks Ballads," by C. J. Dennis. I understand a reprint may be issued. It contains "A Song of Rain" (which I told you on Sunday week), and many gems of humor by the famous author of "The Sentimental Bloke" and "Ginger Mick."

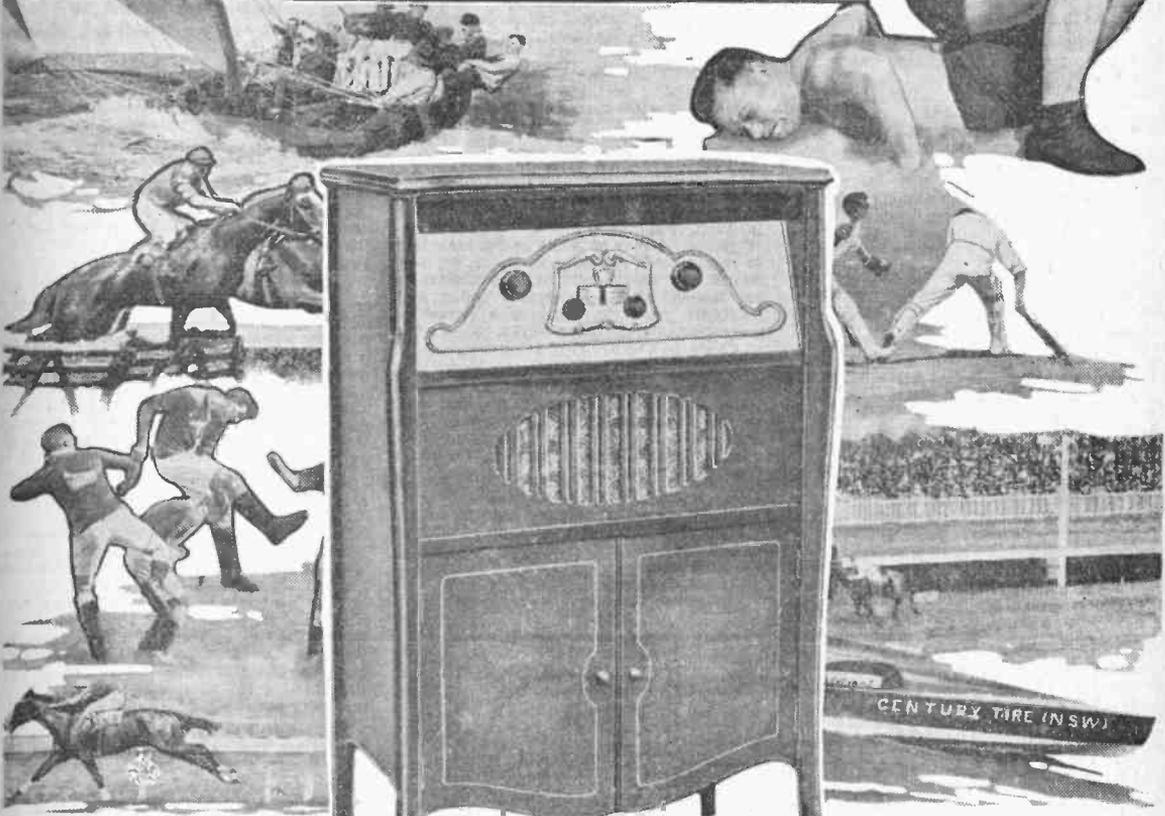
### Greeting

AND now here is my constant greeting—"Good wishes to you all, Comrades!" Listen in to 2FC next Sunday morning at 10.15. Cheerio!

—"THE CAPTAIN"

# Just Plug In!

YOU'LL get a red hot thrill as you listen to the Wireless tell the story, how the race is being run, how the fighter fights his fight, and how the wrēstlers strain and strive for mastery 'midst the yells of delight from the ringside, and then you know immediately "Who's Won"! Our Plug-in Wireless will give you a new zest in life. (No Batteries.)



**The Salonola**  
All Electric Wireless eliminates batteries, and you simply "Just Plug-in" to a wall plug or lamp socket. You can have these sets now as our terms are made to suit every purse.

**ALL ELECTRIC**  
5-Valve Wireless **£45**  
3-Valve Wireless **£32**

**5-Valve All Electric Wireless**  
small deposit and 11/- weekly.  
**3-Valve All Electric Wireless**, small deposit and 8/- weekly.  
The owner of any Salonola Radio can have their Set made All Electric, and thus eliminate batteries.

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ADDRESS .....

# PROVING RADIO!

**No. 19** Meters in general, Milliameters in general, Milliamperes, and Volts. Complete instructions are also given so that the experimenter may make for himself an all-purpose meter, i.e., one that will measure in tenths of Milliamperes, in Milliamperes, Amperes, and Volts.

**T**HIS WEEK we shall learn a little about some of the measuring instruments used in radio and electricity.

Every technical term used here has been explained in a previous article. If any reader is doubtful on any subject treated in "Proving Radio" he should write in at once.

**METERS.**—In order to check up on dry cell "B" batteries only a cheap, pocket-type voltmeter with a range from 0 to 50 volts is needed. But many of us now use eliminators or electrically operated sets. And others among us are not satisfied with merely testing "B" batteries but want to see how much filament and plate current each valve uses, what the whole set draws, at what rate the charger recharges the "A" battery, etc. This requires meters of different types, or one meter and about an hour's work, adding various resistances to adapt it to other uses.

**MILLIAMMETERS.**—A milliammeter is a device for measuring small currents and is calibrated in one-thousandths of an ampere. It consists, basically, of a coil of fine wire suspended, free to rotate through about 150 degrees, between the pole of a magnet (Fig. 1). To the coil is attached a pointer, which moves over the marked scale. A spring tends to hold the pointer at 0. Care must be taken, when using a milliammeter, that too great a current shall not pass through it, as it would be immediately destroyed. NEVER, never, never use a milliammeter as you would a voltmeter. If you do you can throw it away, as it will be burned out. The milliammeter measures thousandths of an ampere.

**AMMETERS.**—A good ammeter is nothing more nor less than a milliammeter, as just described, with a low resistance connected in

parallel with the moving coil, or, as it is commonly called, element. The resistance is usually referred to as being "in shunt with" or "shunted across" the element. See Fig. 2. There are various cheap makes of ammeters (Fig. 3) with an arm attached to the pointer working inside a coil of fairly heavy wire and pulling against a light spring. The ammeter measures amperes.

**VOLTMETERS.**—A voltmeter again uses a milliammeter unit, but this time a resistance is connected in series with the element, as shown in Fig. 4. Several resistances may be employed, so that as many scales may be used with the same element. The double range meters, as one which has scales for 0-7.5 and for 0-150 volts, have two resistances in series, with a tap taken off at the junction, as shown in Fig. 4. Cheap makes of voltmeters may be made in the same way as the ammeter pictured in Fig. 3, or may consist of a needle fixed to a small rotating bar magnet working against a spring and suspended near the poles of a horseshoe magnet around which is wound a coil of wire, as shown in Fig. 5.

**MAKING AN ALL-PURPOSE METER.**—It is not particularly difficult to make a meter that will be extremely accurate and will have as many scales as you desire. The cost is low, and the entire job can easily be done inside of an hour. The only materials you will require are:—

- One milliammeter (0-1 ampere scale).
- Box for mounting (a cigar box will do).
- Piece of Bakelite or hard rubber panel to fit box.
- Switch arm.
- Six switch points.
- Two switch stops.

Two terminals.  
500,000-ohm metallic resistor (R1) with mounting.

10,000-ohm metallic resistor (R2) with mounting.

One old rheostat (for R3 and R4).

Wire (insulated) for connection, soldering lugs, screws, etc.

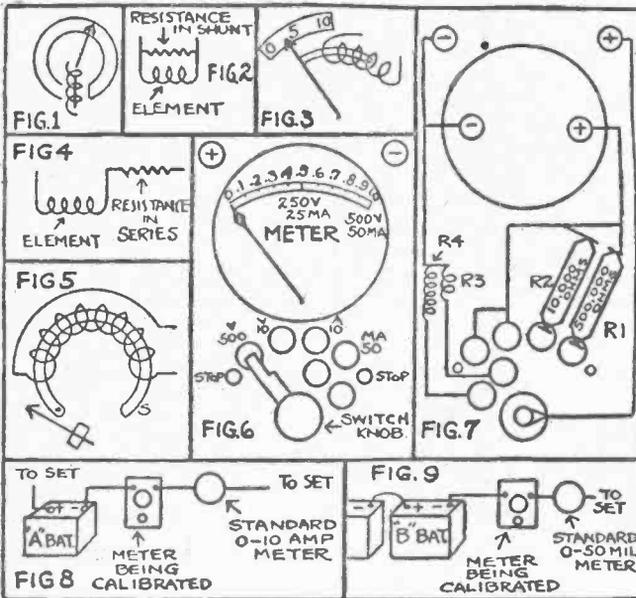
First mount the meter and terminals as shown in Fig. 6. Then take the switch arm and saw it in two, as shown, bending and trimming the right hand section so you have one long and one short switch arm, both mounted on the same knob. Then mount the arm and the switch points and stops, as indicated, so that the long arm bears upon the four outer points, and so that the shorter arm bears upon the two inner points, when the long arm is making contact with the two outer points at the right.

Turn the panel over, so that the terminals are uppermost, and mount the resistor mountings as indicated (Fig. 7). Then connect the switch arm to the positive binding post. Connect the positive terminal of the meter to the two binding posts as indicated and to one end of each of the fixed resistors. The other ends of the fixed resistors are connected as shown. Also connect the negative stud of the meter to the negative binding post.

Now comes the only tricky part of the job. Take a short length of the wire from the old rheostat, say about 18 inches. Fold it so that you have six wires about three inches long, and twist it tightly together. Solder one end of it to the negative meter lead. Take another piece of wire, connect one end of it to the inner binding post of the inner circle, and wrap the other end of it tightly around the twisted resistance wire, near the free end. Do the same with the other binding post, but this time, instead of folding and twisting the wire, make a coil of it, winding a single strand around a lead pencil.

You are now ready to calibrate the meter. To do this, first remove the glass from the face, which you will find is calibrated in tenths of a milliampere. Then set the switch arm on the point to which the 500,000 ohm resistance is connected. Take two 45-volt B batteries and two 44-volt C batteries (all new) and connect them in series. Take a reading across the batteries, connecting the binding post to the positive terminal of the series and the minus binding post to the negative terminal of the series. You should, if the resistor is accurate, get a reading equivalent to 0.2 mils, or one-fifth of the scale. If you do not get this reading, mark the point "100" (volts) and mark off each other 100-volt step proportionately.

Disconnect these batteries from the meter, and take a reading across the two 44 volt C batteries, connected in series, with the switch arm on the point to which the 10,000 ohm resistor is connected. If all is well, the needle will point to 0.9, which you will know means 9 volts. Disconnect these batteries and examine the switch, making sure the short part of the arm makes good contact with the inner switch points, and see that the resistance wire is connected tightly. Then, leaving only four 201-A valves in your



battery operated radio set, connect the meter in series with the A battery, the negative binding post to the minus terminal of the battery. Connect the positive binding post to the negative terminal of a borrowed 0-10 ampere ammeter and connect the positive terminal of the borrowed ammeter to the A battery lead, completing the circuit (Fig. 8). Turn the set on and adjust the rheostat until the borrowed meter reads 1 ampere. Then slide the connecting wire that is wrapped around the twisted resistance wire backward and forward, always being sure it continues to make good contact, until the meter that you are calibrating reads 0.1, which you know indicates 1 ampere.

Taking the same precautions, and using a borrowed 0-50 mill milliammeter, you proceed to calibrate the remaining scale in the same manner, 0.5 indicating 25 milliamps (thousandths of an ampere), but instead of connecting the meters in the filament circuit, connect them in the negative B lead (See Fig. 9). For this scale, the switch arm will be on the remaining points. When the meter has been calibrated for this scale, mark the face as shown in Fig. 6, replace the glass and mount the panel in its box. When the meter is not in use, always keep the switch arm on the 500 volt point, so that there will be less danger of burning it out through carelessness.

### Proving Radio Club News

**EXECUTIVE REPORT.**—"We have received an inquiry from the Boy Scout Movement in reference to joining up with the club. It comes primarily from the 'Cloveley Troup. Two ex-officers have been appointed to interview the troupe and place the objects of the club before them. This, we anticipate, will be the beginning of a big movement in the direction of educating our citizens in the science of radio. The badge of the club was decided upon by a sub-committee elected by the executive, comprising Messrs. Barker, O'Day, Beeby, and Simmonds. The badge will be available to club members at an early date, and the winner of the competitive design will receive his badge in due course."

**CONCORD WEST GROUP.**—"Our experiments on Thursday, April 18, consisted of those dealing with magnetism and electro-magnetism. These were entirely successful. We then passed on to induction. The experiment with the two coils and galvanometer would not work." (NOTE.—Have you tested galvanometer with a bar magnet? Did you reverse the coil?). "We cannot understand how it is that A.C. can be stepped either up or down, while it is not so with D.C." (NOTE.—This is easily explained and demonstrated its proof lies in the galvanometer coil test. When you depress a key in one circuit, causing the current to flow round the coil, magnetic lines of force are induced, and these set up a current in the coil containing the galvanometer. You will find that when the key is depressed—if the experiment is properly carried out—the galvanometer will jerk away from its original place, but return almost immediately, and will remain just as though I.C. current is passing through the coil, because after the key is closed the magnetic lines of force sink back again to the conductor; whereas when the circuit was made the magnetic lines of force spread out over a great area. Now, if the pressure is removed from the key the galvanometer will again jerk away, then jerk back again, proving that the magnetic lines of force were once more strained, and this time, as the current was

cut off, the lines of force were cut right out, and did not remain around the windings. This proved then that a rapidly alternating current will cause the galvanometer to deflect rapidly. In other words, the coil containing the galvanometer—which, being the coil which picks up the energy may be treated as the secondary of the transformer—will pick up the energy from the primary—that containing the input. If you were to rapidly make and break a D.C. primary circuit you would find that, although the current was not semi-continuous, there would be a tendency for a step up transformer to amplify it, because there is a rapid alternation caused by the magnetic lines of force. You further ask: "Why are iron cores incorporated in audio transformers and air cores in R.F. transformers? We would like a further explanation of this." The answer is that in the first place I have not yet reached the point where these components—radio frequency transformers—are to be discussed. The greatest error you can make is to bother your head with components of which you understand practically nothing. It would be practically impossible to treat R.F. transformers here. Remember, there are others studying the course, too, and an article on R.F. transformers—components of which probably many have not even heard—would be very confusing. On the other hand, audio transformers have been briefly treated, and if you had carefully learnt all that was said you would know that iron is probably the best substance we have for a temporary magnet. When it is placed inside a coil it assists the magnetic lines of force, because the iron itself becomes a magnet. "As we had completed the experiments and discussion listed for to-night we then had a little Morse code instruction."

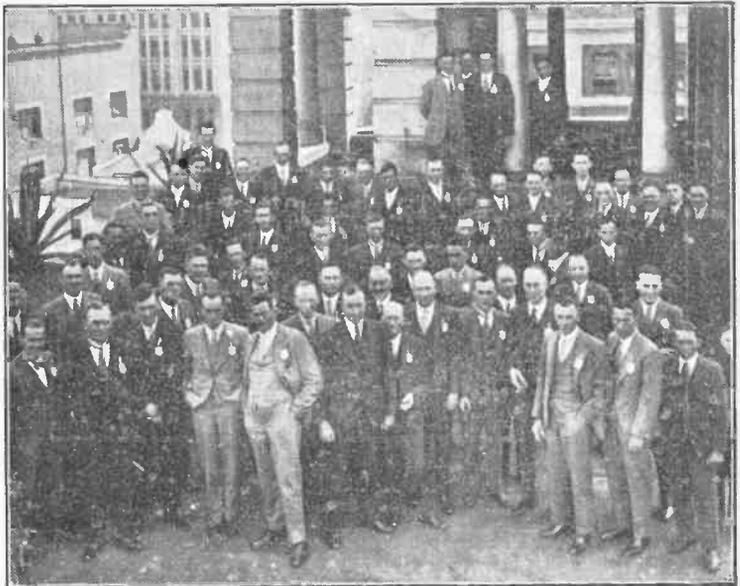
**SUMMER HILL.**—"We decided to try static experiments for this meeting. Our first experiment was to rub sealing wax on wool. This was successful. It was seen that the sealing wax attracted the pieces of paper. Next, we took a glass rod, but this would not work. We came to the conclusion that there was not enough surface of glass." (NOTE.—This is not so important as weather conditions and plenty of hard rubbing. Silk should be used. At Turramurra recently this group

had difficulty in getting this experiment to function, but found that plenty of elbow grease was required. Once one member of the group managed to get his piece of glass to act all the others were fairly successful). "Next we took the electrostatic. We tried the glass rod on it, but the leaves remained still. We then tried sugar—no result. The electrophorus was then electrified. When the lid was held to the electrostatic the leaves would diverge. The electrophorus was then tried. Although no spark could be seen jump to the finger, when a piece of wire was connected to the sole and the lid brought near the other end of the wire a distinct spark could be seen. Owing to the fact that we could not get enough energy from the electrophorus we were unable to charge the Leyden jar." (NOTE.—Presume you have compared your electrostatic with those that have been successful?). "The rest of the evening was taken up by members expressing their views on static."

**ARNCLIFFE GROUP.**—"This group held their regular weekly meeting on the 18th inst. A very interesting night was spent. The storage battery was the subject dealt with, and one of our members, being a storage battery builder, was able to explain the subject from start to finish, including the many causes of sulphating and breakdown. We have four short-wave enthusiasts in this group, and we always devote some time to the week's workings. We closed down early in the evening, viz. 2230, as one member had a long way to go."

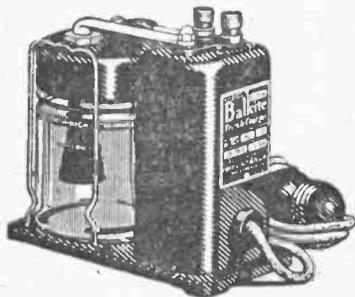
**EASTERN SUBURBS GROUP.**—"We conducted experiments in magnetism. The lines of force were plainly seen in iron filings on the glass. The theory of magnetism was also explained."

**DULWICH HILL GROUP.**—"We spent the night in constructing a Wimhurst static machine, which will provide static electricity under practically any conditions. Each group will eventually have this machine for demonstration."



A.W.A. dealers at the recent conference of that firm.

# SENSATIONAL REDUCTIONS!



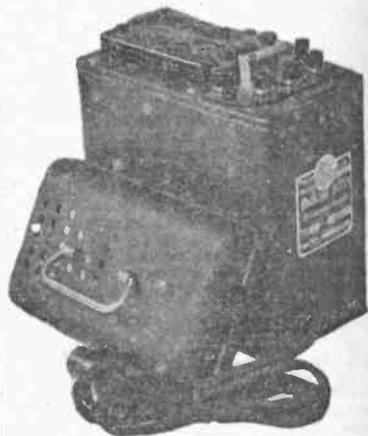
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To-day there are over 750,000 Balkite Trickle Chargers in use. Just as it was first in making trickle charging possible, Balkite has always been first in popularity and number in use. Balkite is the standard trickle charger, tried and proved by use in the hands of its thousands of owners.

Like all Balkite Radio Power Units, this charger is a permanent piece of equipment. It has no tubes and nothing to replace or renew. It is noiseless in operation and can usually be used during reception. It is very compact and small, and its current consumption is very low.

The Balkite Trickle Charger can be used as a trickle charger with any 6-volt radio "A" battery. Thus used it keeps your battery always at full power, and in effect, converts it into a light socket "A" power supply. With 4-volt batteries it can be used as an intermittent charger of the usual type; or as a trickle charger if a resistance is added. Charging rate is approximately 1/2 ampere.

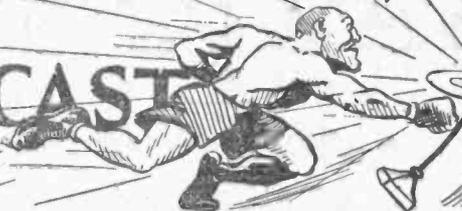
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# HITTING BELOW THE BROADCAST THE BELT



Short-wave and Amateur Notes by VK2NO

**A**LTHOUGH, when we first appeared under the title of this page, we took steps immediately to inform our public that the pugilistic gentleman the artist had drawn in the corner did not and was not intended to resemble the author of the notes. We still find a lingering doubt in the minds of certain sceptical readers. In order to dispel the idea, once and for all, we instructed the offending artist to supply a second design. But, alas, the artist, seized with a perfectly feverish idea, made matters worse. This time he depicted a second pugilistic gentleman hitting a poor unoffending mike a swipe which certainly looked like a foul.

Result: Not only do our closest friends see a certain resemblance, but we are further accused of unfair play in the realms of radio A plague on all artists.

But, having been so branded, we find it difficult to live down. There is no good reason for the above rubric. But what shall we call it? "What are the short-waves saying?" "Sitting on the short-waves' tail," "Around the shortwave dials," all have a familiar ring.

Well, we chase the matter into the enemy's camp. If you can think of a better one we offer you a .00014 Jackson condenser if accepted. That's fair enough.

Some little time ago Australia's most enthusiastic short wave, BCL, Mr. Russell Crane, wrote to the British Broadcasting Commission giving his views on the 5SW service. The letter from the B.B.C., in reply, is very interesting, and is by the courtesy of Mr. Russell Crane published here:—

Dear Sir,—We have to acknowledge with many thanks your most interesting letter of January 22, in which you express your views on long distance short wave transmission, with particular reference to 5SW. In the main we agree with all that you have to say.

Since their inception the transmissions of 5SW have been, and are, purely experimental, and we make no pretensions that the station is giving a service; for this there are several reasons.

- Owing to the difference in longitude between the various parts of the British Empire a service would have to be on a 24-hour basis.
- It is well known to any competent wireless engineer that a short wave transmission of sufficient power can be received at a given time and under favorable conditions almost anywhere in the world; but there is a vast difference between mere audibility and a service which implies regularity and reliability of reception.
- Given a "service" there still remains the difficult and involved question of payment for maintenance of the transmitter, programmes, and copyright with all its implications.

It seems unfair to us that the licensed listener in the British Isles, from whom the B.B.C. derives the major portion of its revenue, should bear the whole cost of a

short wave station on a service basis, seeing that such a station is practically useless to listeners in the British Isles.

There are three main categories in which we can place those who are interested in a short wave Empire broadcasting service:—

(a) The "amateur" wireless engineer and experimenter. This class need not be considered seriously, as it is relatively small.

(b) Those who live in isolated parts of the world where there is no broadcasting service, such as military and civil administrators, planters, and so on. Judging by correspondence and conversations with individuals of this class, broadcasting in any form would be a godsend, and the persons concerned are not, and would not be, particularly critical as regards the quality or the regularity of their reception. Some, no doubt, come under Class "A," but these are in the minority, the majority have no technical knowledge, and look upon their receiver as a means of entertainment and not as a scientific instrument.

(c) Those, like yourself, who live in the greater Dominions within the range of an existing broadcast service, but who would wish to hear some items of special interest, such as mentioned in the postscript of your letter.

The problem of Empire broadcasting is intimately bound up with that of short wave reception, and the purpose of our present experiments, which you know are being carried out with 2XAD, is to ascertain how for short wave reception can be stabilised and improved by the utilisation of spaced aerials or other devices so that the chief obstacle, fading, may be overcome.

## JOBK TIMETABLE

Wavelength, 400 metres. Power, 10,000 watts.

### WORKING TIME (DAILY).

From 7 a.m. Physical exercises by 7.30 a.m. the aid of radio.

From 9.2 a.m. Market exchange. to 11.55 a.m. Weather forecast.

From 12.10 p.m. to 1.10 p.m. Music, speech.

From 1.30 p.m. to 4.5 p.m. Market exchange; report of news, and weather forecast.

From 5.30 p.m. Lectures, music for children. to 7.0 p.m.

Report of news, lectures, and general amusement. From 7.10 p.m. to 10.0 p.m. Time signal and announcement.

There being no market exchange on Sunday, the vacant hours are appropriated to special lectures, music, and general amusement.

The idea at which we aim is that a short wave transmission may be so well received as to be "re-broadcastable" throughout the local system in a manner that would not compare unfavorably with the normal output. It is probable that we are very far from attaining this ideal; but the results we have had to date are not altogether discouraging. For instance, we re-broadcast quite successfully from 2XAD the description of the landing of the Graf Zeppelin in October last, and the National Broadcasting Corporation of the United States of America relayed the London programme, received via Chelmsford, through a chain of 40 stations on February 5. You will see, therefore, that our experiments tend towards providing a service that will be of interest to the listener in class "C." Class "B," however, has our very sympathetic consideration.

We have set forth the position at some length, and trust that the explanation is clear.

We would once more express our thanks to you for your letter of January 22, and previous correspondence.

BRITISH BROADCASTING CORPORATION.

T. C. H. SHAW, Chief Engineer.

This letter puts the matter in a nutshell, and there is no doubt but that the B.B.C. is working hard to overcome the many technical problems involved.

On the evening of Friday, April 19 last, the General Electric Company of America put over an excellent programme through W2XAF for the benefit of the Melbourne Radio Exhibition. Using the Air King receiver at VK2NO, every word and item of the programme was listened to at excellent speaker volume. KGO, through W6XN, may be heard very strongly on 23.38 metres every Wednesday afternoon from 3 to 5.30 p.m. Sydney time. There is almost no fading with this transmission, and results indicate that it should be fairly constant the whole year round. 5SW is still very strong in the early morning from 5.30 a.m. to 7.30 a.m., Sydney time; but has been suffering a little from quick surging or high speed fading.

Among the hams things are well on the move, and the Melbourne gang report that 10 metres has come to lie again, many contacts with New Zealand and a few with America being secured. A Japanese amateur reports reception in Tokio of quite an imposing list of Aussies.

VK2SA has returned to the fold on the 42 metre band, and is well into his stride with a 1929 self-rectified transmitter, using two UX210's. The note is quite pretty to listen to, and a report I gave to VK2SA made him say in reply: "O.K. O.M. . . then its guddy slop jars." In using a back-to-back transmitter like this, one must be very careful, for if the two oscillators are running even a little out of phase, quite a lot of territory will be taken up in our limited channels. The QST idea of Ross Hull shows how to check up on this, and so intriguing does it seem that one is in the course of construction for the writer's

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station, using two Philips TB150's. This will only be used on the 21 metre channel.

Another intruder made his appearance one day last week inside the amateur 20.8 to 21.4 frequency. This was VIB, who was working VII at the time. That ICW note ruined things for a large number of "hams," who were in touch with Europeans.

Information is to hand regarding the Russian amateur districts. Russia has been split up into districts like the Americans—a sensible idea. They are as follow:—

First District: SIBERIA. Omsk, Tomsk, Novosibirsk, Jakutsk, Vladivostok, etc.

Second District: CENTRAL, Moscow, Nijni Novgorod, Rjazza, Tver, etc.

Third District: NORTH-WEST. Leningrad, Archangel, Murmansk, etc.

Fourth District: VOLGA. Astrakhan, Saratov, Ulanov, Ural, etc.

Fifth District: UKRAINE, Kiev, Moldavia, Kharlov, etc.

Sixth District: NORTH CAUCASUS. Rostov, Krasnodar, etc.

Seventh District: TRANS-CAUCASUS, Georgia, Armenia, etc.

Eighth District: CENTRAL ASIA, Tashkent, Semipalatinsk, etc.

Ninth District: WESTERN MINSK, Smolensk, etc.

The prefix used is EU.

This information will undoubtedly be useful to Australian hams, as it is likely that there will be many contacts with Russian stations as the year goes its 20-metre round.

The once-familiar prefix OZ, so long associated with New Zealand, now belongs to Denmark, and the Argentine Republic has taken LU instead of LO, as previously stated.

South Africa still seems to be the hardest country to even hear. As the 20-metre band

plays some queer tricks, we may expect to hear them suddenly when we least expect it. It has been a sore inward point with me that three years have gone by, and I have not yet been able to QSO an old friend in Capetown—a ham friend of early DX days in GB. Will anyone hearing South African A4X (probably now a new call) kindly notify VK2NO?

Short-wave BCL's will be interested in the following note from Mr. E. A. Moore, of St. Peters, Sydney. He says:—"In a conversation between 5SW, England, and W2XO, America, the latter said that a regular schedule would come into operation at the conclusion of the Congress, so listeners are advised to watch the daily papers for the conclusion, and the following morning at 0200 to 0300 will find the station starting. The waves used by W2XO are 19 and 29.6 metres, and 5SW, 25 and 28.5 metres. W2XO is now the call of the popular American station, W2XAD. This latter call not now being used."

## :-: How to Service Radio Sets :-:

**H**ELLO! Is this the radio shop?"  
 "Yes, ma'am."  
 "Well, I want someone to come and fix my radio."  
 "Yes, ma'am. Who is speaking, please?"  
 "And there you are. The service man called in due course and found the speaker plug pulled out. All in a lifetime, but she let out a whoop that shamed all static when a bill was presented for service man's time. Not so good.

A man stopped in.  
 "Have you anyone who knows anything at all about one of these blankety-blank contraptions?"

"Oh! Yes, sir," we answer.  
 "I don't believe it, but, if you have, show him up to my house, and, if he puts that thing in working condition, just send me your bill."

This man evidently spent some uncomfortable time away from his golf trying to do a little service work for himself, and the mere incident of his being in the dry goods business did not deter him from thinking that, if he could not service the set, nobody else could. They come that way, but how much easier it is to collect a good bill from this type after you do fix his set.

Then, again, we have the customer who owns a set similar to Jones's set. Jones gets results far superior to his, which will never do. Here we have a job requiring our technique and wrinkles. Results: A good fee and a recommendation when we bring his set up to requirements.

These are the kind. Build up a clientele of goodwill customers, and the world is yours. Not so hard.

There are customers we would like to eliminate, or worse, if possible. When they complain unjustly a few times we want to tell them something. But! Be extremely careful, and here is advice that means some thing.

Of the two kinds of customers, the "complainant" and the "merely satisfied," in building up a service business, I prefer the "complainant." Sounds ambiguous, but it sounds fact.

The "merely satisfied" customer calls for service the same as he would order a sixpenny piece of ice. He pays for it and completely forgets it.

The complainant thinks his radio is the only one in the world. He may cause you an extra trip, but, if your work is good, that complainant takes it upon himself to tell the world that he alone "discovered" you, and is proud of it.

He talks about you as though you were a personal possession, and the advertising you derive can be measured in pounds, shillings, and pence.

Vice-versa, if you discard this complainant

The first of a series of articles on radio servicing, by an expert of many years experience.

These articles should not only be of considerable interest to those who wish to attain professional standing, but are also of value to the listener wishing to service his own set.

as a nuisance, not taking the above into consideration, you create an adversary of no mean power.

He builds upon your weaknesses until he becomes an obsession with him, and the harm done you can also be measured in good money. Be very careful.

II.

There are thousands of radio sets in use to-day embodying the four principal circuits: Regeneration; tuned radio frequency, both self-balanced and neutralised; super heterodyne; and reflex, with the myriad tricks attached to them.

Plenty for every service man. In fact the sets need good service men.

When servicing a radio, always remember that, no matter how tricky it may be, the circuit is one of the four principal with their fundamentals, and only has embodied it in some individual means of obtaining an oscillation control, an elimination of high frequency from the audio circuit, a plate voltage control, an inductive output, etc., etc. but, when servicing a set, visualise the true circuit only, and the tricks will show themselves up. Study the four elementary circuits.

The terrible, heart-rending conditions of radios that won't work are generally confined to a few major troubles, easily located. Radio frequency transformers, good wiring, and good apparatus do not go wrong. It is not service to go poking around in these looking wise. Audio transformers and bypass condensers are the main points of weakness. Valves, of course, lose their electron-emitting qualities after months of use, and are the decaying quantity in a radio, due to their lighting and not functioning.

A man, by following the rules in this booklet, will soon be able to go through a service job in five time, and, not only that, but create a booster customer by the deft

manner of overcoming trouble without undue delay, although with always the thought of a sale of something additional, something proven necessary by his test kit.

Unless you locate the trouble immediately in a home-made, mongrel set, do not get yourself in a rut by sticking to it at the customer's house. Take it to the shop, trace the circuit, and you will find the trouble as you go. Never take a mongrel set away without first finding out definitely whether or not the owner thinks a radio service man will work on his set for pleasure, the same as he did. I have found it the easiest procedure, if a mongrel set shows poor workmanship and old apparatus, to advise the customer I would re-wire it, make it modern, and overcome his trouble at the same time, for £5, £6, or whatever the job was worth. Never work cheap nor give cheap work. A good motto.

This is not a sales talk, but you should sell him a new set if your business is not serious alone, and, after making a price for re-wiring, it is easy mathematics to show him the small difference in price for a new one. He may not be interested in a new set at all before you mention the cost of fixing up his old one.

I always charged a minimum of £1/1/ for a professional visit, generally lasting one hour, and have gone as high as £5 for the same or longer period, according to the type set, the customer, and the technique required. I have always been appreciated and recommended.

If I had given the same work for 5/ or 10/ I would not have been appreciated, recommended, and neither would the customer have thought as much of his radio, nor given it the better care after he parted with the cash. Neither could I have continued. But, bear this in mind: I put his radio in first-class condition and guaranteed it. Back up your work by thank you trips to keep your customer satisfied, or, in other words, keep your patient, which is the radio set, in good health. If you fully cured the radio at your first trip, and when you held out your hand, you will not be required to make any thank you trips.

Most of the time the service work on a radio is really service work on the owner. Part with some of your knowledge patiently and friendly, and you will leave a customer who can back up your good work by keeping it so.

This writer has served radios all over the country, all kinds of them, from cigar boxes to gold-plated; has lectured on radio, built broadcast stations; has given free information and advice, has been a radio editor, and has assimilated his radio-owning public. You will receive an intimacy with his service methods in the following sections.

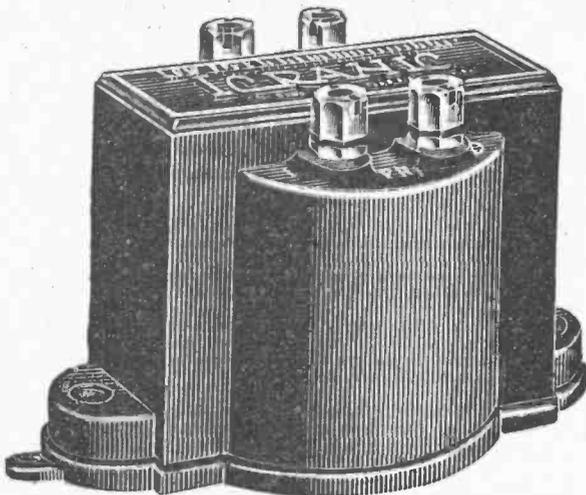
# Something New DON'T — MISS — IT!

## IGRANIC L. F. TRANSFORMER TYPE "J."

The Igranic L.F. Transformer Type "J" has been developed to meet the demand for a Low Frequency Transformer which, while being of small dimensions, comparatively light in weight, and reasonably priced, is thoroughly efficient in performance, and which will give amplification of a standard comparing favourably with heavier and more expensive types of Instruments at present on the market.

The Igranic L.F. Transformer Type "J" meets all these requirements admirably. It is a remarkably efficient instrument, measuring only 3½ in. long by 1½ in. wide, by 2 in. high, and weighing approximately 10 ounces. Its light weight and small dimensions constitute features which render the instrument particularly suitable for incorporation in portable receivers.

The D.C. resistance of the primary winding is of a very low value, so that there is no appreciable voltage drop in the anode circuit of the valve, and the full available H.T. voltage is, therefore, applied to the anode of the valve.



A filter condenser is permanently connected across the primary winding, and is housed inside the outer casing which is moulded of best quality Bakelite, and is of very attractive appearance.

We can assert with confidence that the performance of this transformer is definitely better than any other transformer of similar size and price, and including many instruments selling at considerably higher prices. Supplied in two ratios, 3.1 and 6.1.

Price, 27/6

Price, 27/6

As a result of the particular design which has been adopted, it has been found possible to dispense with the usual metal case without fear of interaction. The terminals are clearly marked for connections and a soldering tag is provided for earthing the core of the transformer.

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(Melbourne), Pty., Limited,

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Every owner of an H.T. Accumulator needs this Oldham H.T. Charger. It costs only 105/- for the A.C. model (D.C. model 80/-), yet it does all that a charger should do. Used occasionally overnight it will keep your H.T. Accumulator fully charged at an almost negligible cost. To use it is simplicity itself. Merely disconnect your H.T. Accumulator from your Receiving Set, connect up to the two leads from the Oldham Charger and insert the plug into the nearest electric light socket. No worry—no trouble—no

inconvenience—your H.T. Accumulator is always in perfect condition. This means that your Receiver will bring in more Stations—better tones—greater volume. And it means, too, that your H.T. Accumulator will last longer. An Oldham H.T. Accumulator with an Oldham H.T. Charger is the best possible source of H.T. power for your Set. Dependable—because it can never break down. Silent in operation—because mains 'hum' is impossible. Economical—because a shilling or so will pay for a whole year's electricity. Long lasting—because the Oldham Accumulator is fitted with plates made under the famous Oldham Special Activation Process. Give your Set a chance to bring you real music! For an Oldham H.T. Accumulator and Charger.

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fits any make of  
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SEE THESE  
NEW  
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PRODUCTS

**OLDHAM**

Here's the solution to your accumulator-charging problems—the wonderful new Oldham Auto-Power Unit. Plug into any light socket (A.C. mains only 200/250 volts), connect the two flexible leads to the low tension terminals on your receiver, and switch on. That's all there is to do. And when the programme is ended switch off. What could be simpler? No wires to disconnect from your set—nothing to get out of order or to go wrong. At last trouble-free radio is brought within the reach of everyone. No matter which type of Set you are using (whether one valve or five valves), you need this Oldham Auto-Power Unit to ensure the greatest amount of enjoyment from Radio.

**WHAT IT DOES**

Inside this handsome metal case is a Bakelite Rectifier and an Oldham O.V.D. Accumulator. When the Auto-Power Unit is switched on, the receiving set is automatically connected to the accumulator, and disconnected from the mains. When the programme is ended, the act of switching off automatically disconnects the receiver and connects the Oldham Accumulator to the electric light supply for a gentle recharging. All through the night and during the next day—until the time for broadcasting is due again—the accumulator is being replenished with current from the electric light mains. Should the accumulator, however, not require recharging, the Auto-Power Unit can be switched off at the mains or disconnected at the light socket. Thus, with an Oldham Auto-Power Unit you can get all the advantages of mains valves without their high cost. You need never be without your Wireless Set owing to an exhausted accumulator.

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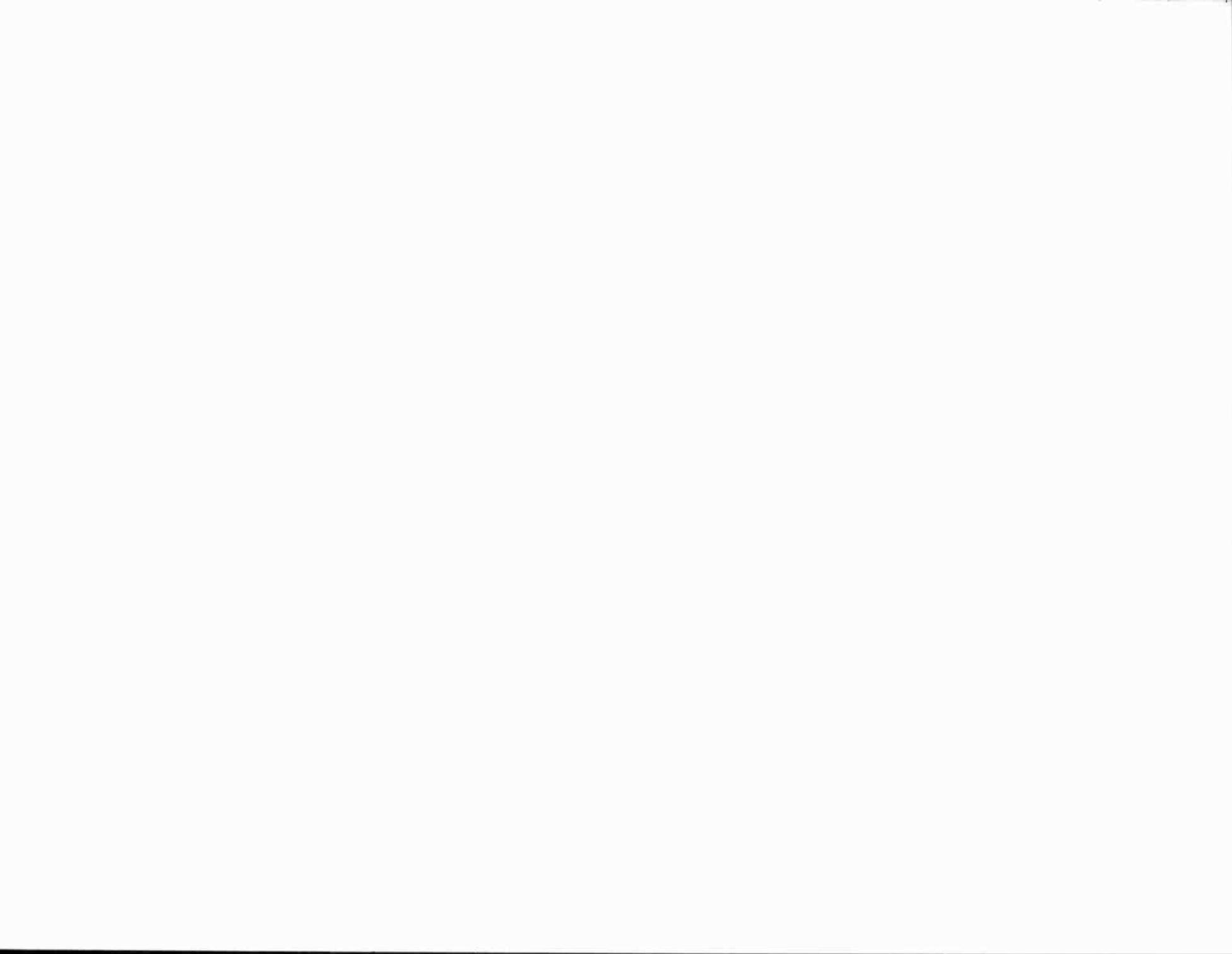
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# 1929

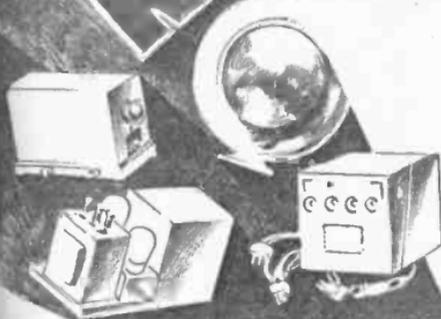


**E**ACH year the might of Philips in the world of Radio becomes more firmly established, and the Radio Exhibition of 1929 rings up the curtain on the latest array of Philips mighty products.

Emanating from the minds of the world's greatest scientists in the Philips laboratories, these new Philips products have passed from their final gruelling tests—precision-built units, which will out-pace the radio world by their ingenuity and sterling efficiency.

*You Have Not Seen the Exhibition If You Have Not Visited Stand*

# RADIO



# PHILIPS

AT THE RADIO AND ELECTRICAL EXHIBITION TOWN HALL, SYDNEY

STAND

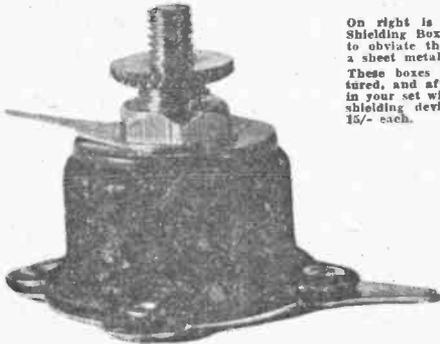
# 24

# Why YOU should visit RADIOKES BOOTH 27 (Great Hall) Same location as last year AT RADIO SHOW TOWN HALL SYDNEY

Because Radiokes has long been recognised as the leading line of fine coil kits and R.F. equipment, therefore there will be no view the latest and best the art has to offer. Because thousands of fans who visited our stand at last Exhibition were pleased and enlightened with the information they received concerning their own particular Radio troubles. Because the New Season's Construction Sets will be shown there, and explained by Radiokes Demonstrators. Because last, but by no means least, the New Radiokes Four Valve All-Electric Receiver will be shown for the first time, and you owe it to yourself to see this wonderful receiver, which bids fair to be the most popular factory-built set for the forthcoming season.

THIS SEASON'S MOST POPULAR CONSTRUCTION SET, THE 1929 ULTRA NEUTRODYNE, will be on show, and we advise you to build same.

Coil Kit and other Radiokes Components are specified for this season's most popular Broadcast Receiver. Once again Radiokes products are the choice of the Technical Editor, and he knows how to appreciate quality and efficiency.



On right is illustrated the Radiokes Collapsible Aluminium Shielding Box. These Shields are designed and manufactured to obviate the necessity of every home constructor becoming a sheet metal worker.

These boxes are carefully designed and accurately manufactured, and after your wiring is completed, they are assembled in your set with ease, speed, and precision, making the perfect shielding device. Standard boxes. 9in. x 6in. x 6in. Price, 15/- each.



At left is illustrated the most modern and efficient little Neutraliser yet produced.

This Genuine Neutrodon is fully shielded, and is very small in size, although a giant in performance. Adjustment is simply and accurately achieved by means of the micrometer screw movement, and, once found, is permanently locked by means of the special locking nut provided. PRICE, each, 4/9.



This Genuine Hazeltine Neutrodyne Coil Kit by Radiokes represents the latest development in the famous Neutrodyne system of R.F. amplification. As a popular Five-valve Receiver the Neutrodyne "will sure take some beating," and this new small coil kit will tend to make this famous circuit still more popular. Radiokes De Luxe Bakelite construction. Price per kit, 37/6.

Radiokes Radio Frequency Chokes are too well known to require any description here. They are a necessity in practically every modern receiver. No "Ordinary" Choke can replace Radiokes, for this choke is super efficient, is small, rugged, easily mounted, and wired in set, and moderately priced at 8/6 each.

Above is shown the latest product of Radiokes laboratory and factory. This is, perhaps, the finest little Midget Condenser yet produced. See one for yourself, study the accuracy of manufacture, feel the smooth, velvety action, and this condenser will always be your choice. Made in five sizes, priced from 4/0 to 8/6 each.

Obtainable from all High-class Radio Dealers, or direct from Manufacturers.

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RADIOKES HOUSE, 126-130 Sussex St., Sydney, or York House, 294 Little Collins St., Melbourne

# Local Programmes, Friday, May 3

## 2FC

### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

7.0: "Big Ben" and announcements. 7.2: Official weather forecast; rainfall; river reports; temperatures; astronomical memorandum. 7.7: "Sydney Morning Herald" summary. 7.12: Shipping intelligence; mail services. 7.15: Studio music. 7.25: Investment market; mining sharemarkets; metal quotations; wool sales; breadstuffs markets; Interstate markets; produce markets. 7.40: Studio music. 8.0: "Big Ben"; close.

### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.45: A talk on Home Cooking and Recipes, by Miss Ruth Furst. 11.0: "Big Ben"; A.P.A. and Reuter's Cable Services. 11.5: Close.

### MIDDAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Studio music. 12.10: Summary of news. "Sydney Morning Herald." 12.15: Rugby Wireless News. 12.18: A reading. 12.30: Studio music. 1.0: "Big Ben"; weather intelligence. 1.3: "Evening News" midday news service; Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: From the War Memorial Carillon. University of Sydney—A Recital. 2.0: "Big Ben"; close.

### AFTERNOON SESSION.

Announcer: Studio—Ewart Chapple; Town Hall—Laurenee Halbert. Accompanist: Kathleen Roe. 2.30: Programme announcements. 2.32: The Book Lover's Corner. 3.0: "Big Ben"; popular music. 3.15: Rev. Father T. A. Walsn, S.J. will speak on "Mediaeval Menus." 3.30: B. Ben: from Sydney Town Hall—Radio and Electrical Exhibition, 1929. William Bowyer, basso, and conductor of the Ashfield Choral Society, which was successful in the recent Radio Extended conducted by the New South Wales Broadcasting Company Limited: (a) "Harlequin" (Sanderson), (b) "Sultana" (Speaks). 3.38: Rene Burkitt, the brilliant young violinist of whom great things are presaged in the future—(a) "Melody" (Davies), (b) "Minuet" (Beethoven). 3.48: Dismal Desmond, comedian—He's just naturally funny. 3.56: Nea Hallett, popular vocalist. 4.3: William Bowyer, basso—(a) "Now Sleeps the Crimson Petal" (Quilter), (b) "Innetus" (Huhn). 4.10: Rene Burkitt, violinist—(a) "Canzonetta" (D'Ambrosie), (b) "Mazurka" (Drdla). 4.17: Nea Hallett, popular vocalist. 4.24: Dismal Desmond, comedian. 4.30: From the studio—Mrs Scott will speak on the Character of Lady Macbeth in connection with the forthcoming Intermediate examinations. 4.45: Stock Exchange, third call. 4.47: Popular music. 5.0: "Big Ben"; close.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The Children's Session, conducted by the "Hello Man"; letters and stories; music and entertainment. 6.30: Dalgey's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby Wireless news. 6.50: Late sports news. 7.0: "Big Ben"; late news service. 7.10: Specially selected recital of dinner music.

### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.20: The Consul-General for Poland will give a short address. 7.40: Popular music. 7.45: Programme announcements. 7.48: Studio items. 8.0: From the Theatre Royal, by arrangement with J. C. Williamson, the Pavlova Orchestra. 8.27: From the studio, Roy Dunne, baritone. 8.30: Will Carter—Australian bush sketches.

8.47: Bertie Wright, comedian. 8.57: Weather report. 8.58: From the Theatre Royal, by arrangement with J. C. Williamson, the Pavlova Orchestra. 9.20: From the Studio—Roy Dunne, baritone. 9.27: Will Carter, Cameos of the Bush. 9.37: From the Theatre Royal, by arrangement with J. C. Williamson, the Pavlova Orchestra. 10.16: From the Studio—Bertie Wright, comedian. 10.26: To-morrow's programme and late weather. 10.30: National Anthem; Close.

Late sporting news. 7.0: "Big Ben." Late news service. 7.10: A recital of selected records.

### EVENING SESSION.

Announcer: Basil Kirke. Accompanist: Kathleen Roe. 8.0: G.P.O. chimes. 2BL Topical Chorus. 8.2: From the Sydney Town Hall, Radio and Electrical Exhibition, 1929. 2BL Light Orchestra, conducted by Horace Keats—"Ballet Russe" (Luigini). 8.12: "La Gioconda" Vocal Quartet, lead by Dorothy Benbow, of the late Will's son—Melba Grand Opera Co. (a) "Annie Laurie." (b) "The Rosary" (Nevin). (c) "There are Eyes" (Keyes). 8.20: Harrison White, banjo solos—(a) "Invercargill" (arr. Harrison White). (b) Selection. "Swanee Medley" (arr. White). (c) One-step, "Popular Selection" (arr. White). 8.27: Frank Ryan, comedian—(a) "Some Stories" (b) "The Girl on the Stairs" (Henry). 8.37: Carlton Fay, pianist—(a) "Concert Polonoise" (Englemann). (b) "Valse Caprice" (Rathburn). 8.44: Rowell Bryden, baritone—(a) "Jennys Way." (b) "The Muleteer of Malaga." 8.50: 2BL Light Orchestra, conducted by Horace Keats—"The Chocolate Soldier" (Strauss). 9.0: G.P.O. chimes. Weather report. 9.1: C. R. Dexter—last-minute sporting information. 9.15: La Gioconda, Vocal Quartet—(a) "Sweet and Low" (Barbry). (b) "Carolina" (Stathan). (c) "The Last Rose of Summer" (Vincent). (d) "Happy Song" (Del Riego). (e) "Aloha" (Lilikalani). 9.26: Harrison White, banjo solos—(a) Classic, "Elegy" (Massenet). (b) Fox-trot, "Listen to This" (Grimshaw). 9.33: Frank Ryan, comedian. 9.43: 2BL Light Orchestra, conducted by Horace Keats—"The Vagabond King" (Primi). "Selected." 10.0: G.P.O. chimes. Rowell Bryden, baritone. 10.7: Carlton Fay, pianist. 10.14: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 10.28: Late weather. 10.30: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 10.57: To-morrow's programme. 10.59: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 11.30: National Anthem. Close.

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## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens. 8.0: G.P.O. chimes. Weather report, State and metropolitan. 8.3: Studio music. 8.30: G.P.O. chimes. News and information service from the "Daily Telegraph Pictorial." 9.0: G.P.O. chimes. Studio music. 9.30: G.P.O. chimes. Half an hour with silent friends. 10.0: G.P.O. chimes. Close down.

### MIDDAY SESSION.

Announcer: A. C. C. Stevens. 11.0: G.P.O. chimes. 2BL Women's Sports Association session, conducted by Miss Gwen Varley. A talk by "Priscilla." 11.38: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield. 12.0: G.P.O. chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "Sun" midday news service. 1.0: Studio music. 1.3: Talk to children and special entertainment for children in hospital. 2.0: G.P.O. clock and chimes. Close down.

### AFTERNOON SESSION.

Announcer: A. C. C. Stevens. Accompanist: Kathleen Roe. 3.45: G.P.O. chimes. The Melody Trio. 3.55: Violet Hunt, contralto—(a) "Auld Robin Gray" (Scott), (b) "The Quest" (Phillips). 4.2: Captain A. C. C. Stevens will speak on "Hyderabad—Ancient Stronghold of the Golconda Dynast." 4.17: Nancy Rouse, violinist—(a) "Rondino" (Beethoven), (b) "Cradle Song" (Schubert). 4.24: Violet Hunt, contralto—(a) "Queen Mary's Song" (Elgar), (b) "Do You Know My Garden" (Wood). 4.31: The Melody Trio. 4.41: "Sun" news service. 4.46: Nancy Rouse, violinist—(a) "Serenade" (Schubert), (b) "Mazurka" (Bolm). 4.53: The Melody Trio. 5.3: Pianoforte reproduction. 5.15: "Sun" news service. 5.20: Popular music. 5.34: Producers' Distributing Society's poultry report. 5.37: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcer: Basil Kirke. 5.40: Children's session, conducted by Uncle Bas. 5.45: The children's session, conducted by the "Hello Man." Letters and stories. Music and entertainment. 6.30: Dalgey's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby wireless news. 6.50:

## 2GB

10.0: Music. 10.10: Happiness talk, by A. E. Bennett. 10.20: Music. 10.30: Women's Session, by Miss Helen J. Beeling. 11.30: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. D. Jordan. 2.30: Talk. 2.45: Music. 3.15: Close down. 5.30: Children's Session, by Uncle George. 7.0: Music from studio. 8.0: William Green, tenor. 8.7: Mr. Gregory Valentine, violinist. 8.15: Miss Gwen Selva, soprano. 8.22: Instrumental music. 8.30: A humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.35: Mr. Edward Barry, baritone. 8.45: Address by Professor E. Wood. 9.0: Weather report. 9.3: Miss Ada Brook, pianist. 9.10: Mr. William Green, tenor. 9.20: Mr. Gregory Valentine, violinist. 9.30: A humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.35: Miss Gwen Selva, soprano. 9.45: Instrumental music. 9.55: Mr. Edward Barry, baritone. 10.5: Dance music. 10.30: Close down.

## 2UW

### EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes. Request numbers. 9.0: G.P.O. clock and chimes. Comments on foreign affairs, by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

# Interstate Programmes, Friday, May 3

## 3LO

### EARLY MORNING SESSION

7.15: Morning melodies; exercises to music. 7.30: Stock reports. Stock Exchange information. Market reports. General news. Shipping and sporting information. 8.0: Melbourne Observatory time signal. 8.15: Close down.

### MORNING SESSION

11.0: To-day's Radio Recipe: Haricot Beans. 11.5: Grace Tyers will speak on "Great Russian Writers and Their Stories." Sturgenieff, 11.50: "As Fate" will speak on "Fashions," vogues sponsored in the smart shops of Melbourne. 11.45: Under the auspices of the Department of Health, Dr. Rowan will speak on "Health and Environment."

### MIDDAY SESSION

12.0: Melbourne Observatory time signal. 12.1: Prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. British official wireless news from Rugby. Reuter's and the Australian Press Association cables. "Argus" news service. 12.15: Newmarket stock sales. Special report by the Associated Stock and Station Agents, Bourke Street, Melbourne. 12.20: General programme, including: Senia Chostakoff, tenor; The Station Orchestra; Clelia Genoni McNeil, soprano. 1.7: Meteorological information. Weather forecast for Victoria, New South Wales, South Australia, and Tasmania. Ocean forecast. River reports. Rainfall. 1.17: Ena Movement, piano. 1.45: Close down.

### AFTERNOON SESSION

2.45: General programme, including: E. Mason Wood, baritone; Cecil Parkes, violin; "The Smith Girls"; Frank Johnstone, cello; Madeline Knight, contralto; The Strat Trio; Miss Frances Fraser will speak on "Kipling"; E. Mason Wood, baritone. 4.54: "Hicrad" news service. Stock Exchange information. 5.0: Close down.

### EARLY EVENING SESSION

6.0: Answers to letters and birthday greetings by "Billy Bunny." 6.25: Musical Interlude. 6.30: Capt. Donajd Maclean: Another adventure story.

### EVENING SESSION

6.50: Madame Soward: "French Without Tears." 7.5: Stock Exchange information. 7.15: Official report of the Newmarket stock sales by the Associated Stock and Station Agents, Bourke Street, Melbourne. Latest truck orderings for next week's markets. Fish market reports by J. R. Borrett Ltd. Rabbit prices. River reports. Rainfall. Weather synopsis. Market reports by the Victorian Producers' Co-operative Co. Ltd. Farm and dairy produce and carcass meat reports. 7.30: News session. 7.43: Birthday greetings. 7.45: "Out of the Past." 7.46: Under the auspices of the Department of Agriculture, W. B. Miller, Inspector of Agriculture, will speak on "Wheat Growing—Picking Methods."

### NIGHT SESSION

8.0: Programme announcements. 8.1: H. K. Love will speak on "Technicalities." 8.15: "Collingwood Citizens' Band: March, "The Merry Firch"; entracte, "Chanson Triste" (Tschalkowsky). 8.25: E. Mason Wood, baritone: "Onaway Awake, (Beloved)" (Cowen). "You Along o' Me" (Sanderson). 8.32: Collingwood Citizens' Band: March, "The Long, Bright Line"; waltz, "The Desert Song." 8.40: "The Smith Girls"; "Sweet Luane" (Earle). "Quieter Memories" (MacArthur). 8.47: Ena Movement, piano: "To the Sea" (M.D. MDCXX). (M'Dowell). "Song" (M'Dowell). Rigaulton, from "Hobbs; Suite" (Grieg). "Alban Leaves" Op. 28 No. 3 (Grieg). "Bechouse" (Grieg). "Butterfly"—"Little Bird." "Erotic"—"To the Spring" (Grieg). "Juba Danse" (Detl). 9.17: Clelia Genoni McNeil, soprano: "Ohi begli occhi di fata" (Denza). "Caro Nome," from "Rigoletto" (Verdi). 9.24: Collingwood Citizens' Band: Selection, "Patience." 9.34: E. Mason Wood, baritone: "Clope Procs" (Charles). "I Hear a Shepherd's Pibrogh" (Williams). 9.41: The Imperial Russian Trio: "Trio in E Flat Major" (Brahms). Andante con moto. Scherzo allegro. Andagio. Vivace. 10.5: "Argus" news service. British official wireless news from Rugby. Meteorological information. Announcements. 10.15: Collingwood Citizens' Band: "L'Adieu" (Beethoven). March, "O.E.M.S." 10.25: "The Smith Girls": Request items. 10.32: Eric Welch will speak on to-morrow's races at Mentone. 10.47: Clelia Genoni McNeil, soprano: "The Cloths of Heaven" (Dunhill). "Your Eyes" (Rabey). 10.48: Ern Hall's Radio Revellers, with Hugh Huxford: "Just Keep Singing a Song" (Bissell). "Eyes of a Wanderer" (Berlin). "Jo Anne" (Ward). "Gipsy" (Gilbert). "Honey" (Simons). "Flower of Love" (Rubyn). "When the Right One Comes Along" (Gibson). "Wear a Hat With a Silver Lining" (Sherman). 11.20: "God Save the King."

## 3AR

### MORNING SESSION

10.0: G.P.O. clock says "Ten." 10.1: Market reports, farm and station produce, fruit, fish, vegetables. 10.25: Shipping reports; ocean forecast. 1.0: All notices; express train information. 10.35: News service. 10.50: Weather forecast.

### MORNING MUSICAL SESSION

11.0: The Radio Revellers. 11.20: Ballads. 11.30: The Radio Revellers. 11.50: Beautiful ballads. 12.0: The Radio Revellers. 12.20: British official wireless news; announcements. 12.30: Close down.

### AFTERNOON SESSION

Announcer: Maurice Dudley. 3.0: Measured Minstrelsy—selections by world-famous bands, interspersed with vocal variations. 4.30: Close down.

### EVENING SESSION

6.0 Regal Rhythms. 7.10: News service; announcements. 7.20: Regal Rhythms continued.

### NIGHT SESSION

Announcer: Renn Millar. 8.30: Community singing—transmission from Central Hall, Geelong. 10.30: "Age" news service, exclusive to 3AR; announcements. "God Save the King."

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## 4QG

### EARLY MORNING SESSION.

7.43: Time signals. 7.45: News service. 8.0: Some electric records. 8.15: News service. 8.30: Close down.

### MORNING SESSION.

11.0: Music; social news, etc. 11.15: Lecture: A cookery and household talk by "The Etiquette Girl." 12 (noon): Close down.

### MIDDAY SESSION.

1.0: Market reports and weather information. 1.20 Lunch-hour music. 2.0: Close down.

### AFTERNOON SESSION.

3.0: A programme of electrically-reproduced records. 3.30: Mail train running times. 4.15: Afternoon news. 4.30: Close down.

### EARLY EVENING SESSION.

6.0: Mail train running times; mail information; shipping news. 6.5: Dinner music. 6.25: Commercial announcements. 6.30: Bedtime stories, conducted by "The Sandman." 7.0: News in brief. 7.5: Stock Exchange news. 7.6: Metal quotations. 7.7: Market reports. 7.30: Weather information. 7.25: Fenwick's stock report. 7.40: Announcements. 7.43: Standard time signals. 7.45: Tomorrow's sporting fixtures reviewed.

### NIGHT SESSION.

Announcer: H. Humphreys. A programme by Mr. Sydney May's party. 8.0: From the Studio—Eric Anderson (violinist)—"Dance Gracieuse" (Dupre). Lou Lambert (baritone)—(Clarke). Jill Manners, Jack Land, Frank Currow—Bocal trio, "Creation" (Haydn). Pat McOnigly (soprano)—"When Love is Kind" (A.L.). Double Quartette—"Life's Lullaby" (Lane). Vera Parker (contralto)—"The Lament of Lien Mel" (Rubens). Jill Manners (soprano)—"Lol Here the Gentle Lark" (flute obligato—Bishop). Double Quartette—"Come Where My Love Lies Dreaming" (Foster). John Steele (tenor)—"Al Hall Abode So Pure and Lowly" (Gounod). B. F. Kelly (flautist)—"Valse Gracieuse" (Sabathal). Lou Lambert (baritone)—"Because I Love You" (Berlin). Jack Land (tenor)—"Sylvain" (Glandou). "From the Land of Sky Blue Water" (Cadman). Double Quartette—"At Eventide" (Raff). Pat McOnigly (soprano)—"The Amorous Goldfish" (Jones).

Vera Parker (contralto) and Jack Land (tenor)—"Who is Sylvia" (Keerton). 9.0: Music report. Weather forecast. 9.1: Week-end road information for motorists, officially supplied by the Royal Automobile Club of Queensland. 9.11: John Steele (tenor)—"Nightingale at Sea" (Phillips). Double Quartette—"Flowers of the Forest" (Hume). Jill Manners (soprano)—"Damon" (Strange). Lou Lambert (baritone)—"Valse" (Russell). Eric Anderson (violinist)—"Serenade" (Drigo). Double Quartette—"Anvil Chorus" (Balfe). Jill Manners (soprano) and Jack Land (tenor)—"The Hour is Late" (Gounod). Vera Parker (contralto) and Eric Anderson (violinist)—"Sweet and Low" (Wallace). Double Quartette—"The Old Folks at Home" (Lambert). Jack Land (tenor)—"Mi Batti il cor" (Meyerbeer). "O Paradiso" (Meyerbeer). B. F. Kelly (flautist)—"The Swan" (Bismarck). Jill Manners and Pat McOnigly (soprano)—"Oberon in Fairyland" (Newton). Double Quartette—"Come to the Fair" (Martin). 10.0: News; weather; close down.

## 5CL

### MORNING SESSION

Announcer: C. J. O'Connor. 11.0: Chimes 11.1: Morning melodies. 11.15: Kitchen craft and meat talk. 11.45: Mr. L. G. Cant will speak on "First Aid to the Injured." 12.0: Chimes. 12.1: Mid-day news. 12.15: General news service. British official wireless news. 12.52: Railway information. Stock Exchange, and meteorological information. 1.0: Chimes. 1.1: Lunch-hour recital. 2.0: Chimes. Close down.

### AFTERNOON SESSION

3.0: Chimes. General programme, including—The Solomon Sisters, instrumentalists; Alice Malton, soprano; Angelo Demodena, mandolinist; Enrico Palmetto, the Danish Caruso; Jack Stocks, the Woman Hater. 4.15: A short lecture, with illustrative recordings, by Horace Perkins, Mus. Bac. A.M.T.A., "Sinfonia" (J. C. Bach), "Edward" (Glad Corder and Lowe), "Solenn Melody" (Walker Davies), "1812 Overture" (Tschakowsky). 4.3: Stock Exchange information. 5.0: Close down.

### EVENING SESSION

6.0: Chimes. 6.1: Birthday greetings, correspondence, songs, and stories, by "Miss Wireless." 6.30: Talks from the Far-North. 6.45: Dinner music. 7.0: Chimes. 7.1: Stock Exchange information. 7.8: General market reports. 7.25: Keith Minchin. 7.40: Leo Thistleton's fourth lesson in the "Fox Trot."

### NIGHT SESSION

Announcer: J. L. Norris. 8.0: Chimes. 8.1: Boake-Smith's Palais Royal Band—"Bluebird, Sing Me a Song" (Davis). "Promise Me" (Van Cootch). "Forty-seven Ginger-headed Sailors" (Lester). 8.10: Alice Malton, soprano, the Woman Hater, in Macdonald Muddles. 8.25: Boake-Smith's Palais Royal Band—"High Up On a Hilltop" (Beer). "My Blackbirds are Bluebirds Now" (Friend). "There's a Black-bow Round My Shoulder" (Dwyer). 8.32: Ernest Palmetto, the Danish Caruso—selections from his repertoire. 8.40: Guido Giacchino, "Bellini"—"Vai uet (Beethoven). "Salut d'Amour" (Liszt). 8.47: Alice Malton, soprano—selections from her repertoire. 8.54: Boake-Smith's Palais Royal Band—"Me and the Man in the Moon" (Pallie). "Raggy Rackety Shack" (Tobias). 9.0: Chimes. 9.1: Meteorological information, including Semaphores idea. 9.2: Overseas grain report. 9.3: Mr. C. T. Madigan, M.A. B.Sc., F.G.S., will conclude his series of talks on "Life in the Antarctic." 9.18: Boake-Smith's Palais Royal Band—"Lily of Laguna" (Stuart). "In 9.23: Guido Giacchino, "cellist"—"Serenade" (Scherber). "Spring Song" (Mendelssohn). 9.31: Jack Stocks, the Woman Hater—More Macdonald Muddles. 9.40: Boake-Smith's Palais Royal Band—"Bouquet of Memories" (Aksa). "Saxophone Waltz" (Bisk). 9.45: P. H. Nicholls, assisted by Ernest Francis, in "Othello." 10.0: Chimes. 10.1: Ernest Palmetto, the Danish Caruso—selections from repertoire. 10.7: Boake-Smith's Palais Royal Band—"Sally of My Dreams" (Karnell). "Sometimes I'm Happy" (Formans). 10.15: General news service and meteorological information. 10.20: SOL's sporting news service, supplied by "Silvius," including selection for tomorrow's races at Morphettville and Mentone. 10.3: Modern dance numbers by the Radio Revellers 11.1: Close down.

## 6WF

12.30: Tune in. 12.35: Markets, news, etc. 12.4: Tune signal. 1.1: Weather bulletin, supplied by the Meteorological Bureau of West Australia. 1.1: Musical programme from the studio, including

by the Studio trio, comprising Miss Audrey Dean (piano), Miss Edna Waterman (cello), Mr. H. T. Newton (violin). 2.0: Close down. 3.30: Tune in. 3.35: Musical programme, relayed from the Primrose Cafe—Items by the Misses Chapman and Marshall. 4.30: Close down. 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Perth Piano Trio, comprising Mr. H. Shiriky (piano), Mr. A. Lynch (violin), Mr. R. Bicarley (cello). 7.30: Commercial and general information. 7.45: Racing talk by the sporting editor of the "Truth" Newspaper Co., Ltd. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Items by the Katoomba Instrumental Duo; vocal artists from the studio. 8.50: Late news items, by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements; ships within range announcement; late weather bulletin. 8.58: Gardening talk by Mr. James Conarty. 9.12: Programme continued from the studio. 10.30: Close down.

**104.5-METRE TRANSMISSION**

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 8.45 p.m.

**7ZL**

**MIDDAY SESSION.**

11.30: Selections. 11.34: Midlands Weather forecast. 11.35: Selections. 11.55: Tasmanian station. a.m.: Weather report. 12.0: Chimes. 12.1: Shipping information; ships within range; mail notices; housewives' guide; commercial news. 12.2: Selections. 12.11: British official wireless news. 12.20: Selections. 12.29: Announcements. 12.32: Selections. 12.35: News service: Railway auction produce sales held at Railway. 1.10: Selections. 1.30: Close down.

**AFTERNOON SESSION.**

3.0: Chimes. 3.1: Selections. 3.4: Weather. 3.5: Selections. 3.15: Studio concert. 4.15: Miss M. D. Wilson, Instructress of dressmaking, will speak on "Autumn Fashions." 4.30: Close down.

**EARLY EVENING SESSION.**

6.15: Selections. 6.25: Birthday greetings by "Uncle David" and "The Story Lady." 6.30: Little Molly Horlock will play the piano for the wee folk—"Minuet in G" (Beethoven), "Rose at Papillon" (Wacks). 6.40: Selections. 7.0: Answers to letters by "Uncle David" and "The Story Lady." 7.10: News service: Railway auction produce sales held at Railway; Hobart Stock Exchange quotations.

**EVENING SESSION.**

7.15: Sid Jones will give a few hints on "Football." 7.30: A Studio concert by 7ZL artists and Columba. Doris Mannerling (soprano)—"I Shall Now Pass Again" (Ehinger), "The Raindrop and the Rose" 7.37: Reginald Cross-Custard—Organ solo, "Soleum Melody" (Davies). 7.40: Katie Rothwell (contralto)—"Down the Vale" (Moir), "Our Little Home" (Coates). 7.47: Jas. Compton—Cornet solo, "At Sunrise" (Code). 7.50: Fred. Heraud (baritone)—"A Sailor's Prayer" (Keel), "Lifeless and Grey the Sea Lies" (Lohr). 7.57: San Francisco Symphony Orchestra—"Caprice Viennois" (Kreisler). 8.0: Jean Hibbard (soprano)—"Only the River Running By" (Hopkins), "I Heard You Go By" (Wood). 8.7: International Concert Orchestra—"The Skaters" (Waldteufel). 8.11: Doris Mannerling (soprano)—"I Love the Moon" (Rubens), "The Piper of Love" (Carew). 8.18: Fritz Kreisler—Violin solo, "Liebesfreud"—Love's Joy (Kreisler). 8.21: Katie Rothwell (contralto)—"Heart's Desire" (Simson), "Harvest" (del Riego). 8.28: Instrumental Concert Orchestra—"Estudiantina" (Waldteufel). 8.31: Fred. Heraud (baritone)—"The Brown Eyes of my Dearest" (Lohr), "Recompense." 8.38: San Francisco Symphony Orchestra—"Coppelia Ballet" (Delibes). 8.41: Jean Hibbard (soprano)—"A Perfect Day" (Bond), "Still is the Night" (Bohm). 8.48: J. M. Cousins—A Musical Hour with the Old Masters; "The History and Development of Music." 8.48: News service; Railway auction produce sales held at Railway; British official wireless news; mail notices; housewives' guide; weather information; market reports from Messrs. Roberts and Co., Wise and Stirling, and W. T. Thorpe and Co.; Railway week-end information. 10.0: Chimes. 10.1: Close down.

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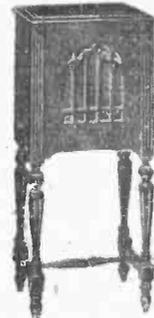
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**FARMER'S**

PITT, MARKET AND GEORGE STREETS

# Local Programmes, Saturday, May 4

## 2FC

### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

7.0: "Big Ben" and announcements. 7.2: Official weather forecast rainfall; river reports; temperatures; astronomical memoranda. 7.7: "Sydney Morning Herald" summary. 7.12: Shipping intelligence; mail services. 7.15: Studio music. 7.25: Investment market; mining sharemarkets; metal quotations; wool sales; breadstuffs markets; interstate markets; produce markets. 7.40: Studio music. 8.0: "Big Ben"; close.

### MORNING SESSION.

Announcer: Eric Bessemer.

10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: Last minute sporting information by the 2FC Racing Commissioner. 10.40: Studio music. 10.45: A talk on "Gardening" by J. G. Lockley ("Redgum"). 11.0: "Big Ben"; A.P.A. and Reuter's cable services. 11.5: Close down.

### MIDDAY AND AFTERNOON SESSIONS.

Announcers: Ewart Chapple, Laurence Halbert.

12.0: "Big Ben" and announcements. 12.3: Stock Exchange information. 12.4: Studio music. 12.10: "Sydney Morning Herald" news service. 12.15: Rugby Wireless news. 12.20: Studio music 12.50: From Canterbury—Description of the races in the running. From the Studio during intervals, musical items by the Popular Trio. 4.45: Complete sporting and racing resume. 5.0: "Big Ben"; close.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The Children's Session, conducted by the "Hello Man"; letters and stories; music and entertainment. 6.30: Dalgety's market reports (wool, wheat, and stock); 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby Wireless news. 6.50: Late sporting news. 7.0: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "The Voice of Spring" (Strauss); (b) "Prelude in G Minor" (Rachmaninoff); (c) "Syncope" (Kreisler); (d) "Primrose" (Gershwin); (e) "Serenade Lyrique" (Elgar).

### EVENING SESSION.

Announcer: Ewart Chapple (Studio).

Announcer: Laurence Halbert (Town Hall).  
Accompanist: Horace Keats.

7.40: Popular music.

7.45: Programme announcements.

7.48: Studio items.

8.0: "Big Ben"; from the Sydney Town Hall—Radio and Electrical Exhibition, 1929. New South Wales Broadcasting Company's Dance Band, conducted by Cec Morrison.

8.12: Radio Male Quartet, winners in the recent Radio Elsteddfod—

(a) "The Song of the Jolly Roger."  
(b) "On the Sea" (Dudley Buck).



**CARLTON FAY,**  
an old favorite with listeners, who will be heard in to-night's programme from 2FC. He will play several compositions by Chopin.

8.20: Warwick M'Kenzie, violinist—

(a) "Obertass" (Wianlawski).

(b) "Home Little Maori, Home" (HML).

8.27: Dorothy Dewar, popular vocalist—

(a) "There are Eyes" (Keyes).

(b) "Just Give the South Land to Me" (Sissie).

8.35: Carlton Fay, one of Sydney's leading pianists—

(a) "Nocturne F Sharp" (Chopin).

(b) "Impromptu F Sharp" (Chopin).

8.42: Phil Mountain, in comedy numbers—

(a) "The More we are Apart Sweetheart" (Holt).

(b) "What are you Goin to Do about Salina?" (Castling and M'Ghee).

8.50: The New South Wales Broadcasting Company's Dance Band, conducted by Cec Morrison.

9.0: From the Studio—"Big Ben"; weather report.

9.1: Radio Male Quartet, winners in the recent Radio Elsteddfod.

9.11: Warwick M'Kenzie, violinist—

(a) "Absent" (Metcalfe).

(b) "Toy Soldier" (March).

9.18: Dorothy Dewar, popular vocalist—

(a) "Mammy Make up Your Mind" (Holstene).

(b) "Westward Bound" (Sissie).

9.27: Carlton Fay, pianist—

(a) "Carnival Time" (Lemont).

(b) "On the Levee" (Lemont).

9.37: Studio Dance Band, conducted by Cec Morrison.

9.52: Phil Mountain, comedian—

(a) "If We Found a Little Corner" (Long Scott).

(b) "Beautiful Dixieland."

9.59: Studio Dance Band, conducted by Cec Morrison.

10.9: Phil Mountain, comedian.

10.16: Studio Dance Band, conducted by Cec Morrison.

10.28: Late weather report.

10.39: Studio Dance Band, conducted by Cec Morrison.

10.57: To-morrow's programme.

10.59: Studio Dance Band, conducted by Cec Morrison.

11.30: National Anthem; close.

## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: Weather report—State and metropolitan. 8.3: Studio music. 8.30: G.P.O. chimes. News and information service from the "Daily Telegraph Pictorial." 9.0: G.P.O. chimes. Studio music. 9.30: G.P.O. chimes. Half an hour with silent friends. 10.0: G.P.O. chimes. Close down.

### MIDDAY SESSION.

Announcer: A. C. C. Stevens.

11.0: G.P.O. chimes. Women's session, conducted by Mrs. Cranfield. What's on at the pictures and theatres. 11.30: Advertising hints. 11.40: Talk on "Gardening," by Mr. Cooper, Park Superintendent, City Council. 12.0: G.P.O. chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: "Sun" midday news service. 12.40: Studio music. 12.50: "Sun" midday news service. 1.0: Musical programme. 1.10: "Sun" midday news service. 1.20: Studio music. 1.40: "Sun" midday news service. 1.50: Studio music. 2.0: "Big Ben." Close.

### AFTERNOON SESSION.

Announcer: A. C. C. Stevens (Studio).

Announcer: Basil Kirke (Town Hall).

Accompanist: Kathleen Roe

3.15: G.P.O. chimes. From the Sydney Town Hall, Radio and Electrical Exhibition, 1929. The Ahad Duo, novelty instrumentalists—(a) "Twilight Shadows" (Nape), (b) "Medley" (Lawrence), piano, accordion, and Spanish guitar. 3.37: Reg. Harrison, comedian—(a) "House to Let" (Squiers), (b) "Cricketer" (Anon.). 3.44: Tom King, jazz pianist—(a) "Sonny Boy" (Jolson-Sylva-Henderson), (b) "Blue Night" (Rollins). 3.51: Doris Orr, soprano—(a) "Here in the Quiet Hills" (Carne), (b) "Live, Laugh, and Love" (Klein).

3.58: The Ahad Duo, novelty instrumentalists—(a) "Hawaiian March" (Cunha), (b) "Pili Pili Poi" (Cunha). 4.6: Reg. Harrison, comedian—(a) "Winkle on Sea" (Scar), (b) "Gladys" (Stanley). 4.15: Description of the Inter-collegiate Eight's—the colleges are Wesley, St. Pauls, St. Andrew's, St. John's. 4.30: Description of the Junior Eight's. 4.45: From the studio, popular music. 4.50: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 5.0: From the studio, "Sun" news service. 5.7: Studio music. 5.17: Pianoforte reproduction. 5.30: Complete racing resume. 5.37: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcer: Basil Kirke.

5.40: Children's session, conducted by Uncle Bas. Music and entertainment. Letters and stories. 5.30: "Sun" news service. 6.40: 2BL Dinner Quartette—(a) "Apple Blossoms" (Jacobi-Kreisler), (b) "A Hillside Melody" (Phillips), (c) "Bohemian Suite" (Ord-Hume), (d) "Carol" (Friere), (e) "Eas-tasy" (Ganne), (f) "Everywhere I Look" (Carew). 7.0: Complete sporting and racing resume. 7.30: Mr. Fin and Miss Pam in advertising talks, handy hints, and nonsense. 7.53: An ad. special. 7.55: Programme and other announcements.

### EVENING SESSION.

Announcer: Basil Kirke.

Accompanist: G. Vern Barnett.

8.0: G.P.O. chimes. Topical Chorus. Mahono Trio, instrumentalists—(a) "Piliiko Blues" (Traditional), (b) "Kilima Waltz" (Traditional). 8.10: Billee Cresswell, popular vocalist. 8.17: The Troubadours. 8.27: Popular programme. 9.30: Weather report. 9.31: Mahono Trio, instrumentalists—(a) "Hawaiian March" (Ellis), (b) "Hano Hano Hanalei" (Alohuika), (c) "Hawaiian Hotel" (Nalms). 9.46: The Troubadours. 10.0: G.P.O. chimes. Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 10.10: Billee Cresswell, popular vocalist. 10.17: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 10.28: From the studio, late weather. "Late "Sun" news service. 10.35: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 10.57: From the studio, to-morrow's programme. 10.59: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 11.30: National Anthem. Close.

## 2GB

3.0: Musical session. 5.30: Children's Session, by Uncle George. 7.0: Request evening. 8.0: Instrumental and dance music. 10.30: Close down.

## 2UW

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: Request numbers. 10.30: Close down.



**DOROTHY DEWAR,** another popular broadcaster, also to be heard in to-night's programme from 2FC. She will render several songs.

# EMMCO'S RADIO PRODUCTS

EVERY PART  
IS FULLY  
GUARANTEED



GET EMMCO  
COMPONENTS  
AND BE SURE

## Safeguard Your Set

With parts accurate and technically correct, the efficiency of your set depends primarily on the Transformer, Variable Condenser, and Dials; if these are inaccurate or inefficient, don't expect results.

### Puratone Transformer



A new, moderately-priced Audio Transformer, which gives the maximum amount of amplification with the minimum of distortion. To those who appreciate perfect rendition from the loud speaker, the Puratone offers the solution. Solidly impregnated against moisture, made up in one piece all-metal case. Three Ratios. Price, 15/6. Golden Voice Transformer, Three Stages. Price, 42/6.

### Super Strat Condenser



A most solidly constructed Condenser that embraces correct minimum and maximum capacities, true alignment, cut-away brass plates, Pigtailed connections, for either base or panel mounting. The rotor plates are reversible, suitable for clockwise and anticlockwise motion. Prices, .0005, 12/6; .00025 and .00035, 12/-; Short-wave low-loss capacities, all 11/6; Double spaced, .0001, 9-plate, .00015, 7-plate, .00012, 5-plate, .00008. Manufacturers' Condensers. Prices, .0005, 12/6; .00035 and .00025, 12/-.

Mello Metal Dial



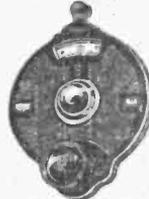
Price, 9/6.

Standard Vernier.



Price, 7/6.

De Luxe Vernier Dial.



Price, 9/6.

Velmo Dial.



Price, 6/-.

Radio and  
Electrical  
Exhibition,  
Town Hall,  
May 1 to 11.

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RADIO and ELECTRICAL EXHIBITION STANDS, 14 and 46

MELBOURNE,  
Sugden Place,  
off Little Collins St.

# Interstate Programmes, Saturday, May 4

## 3LO

**EARLY MORNING SESSION**  
7.15 to 8.15: See Friday.

### MORNING SESSION

11.0: The Radio Revelers. 11.9: Joseph Holm. 11.16: The Radio Revelers. 11.23: Eric Welch will speak on to-day's races at Mentone. 11.32: The Radio Revelers. 11.40: E. Mason Wood. 11.47: The Radio Revelers.

### MIDDAY SESSION

12.20: The Radio Revelers. 12.0: Melbourne Observatory time signal. 12.1: Metal prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. British official wireless news from Rugby. Reuters' and the Australian Press Association cables. "Argus" news service. 12.30: Joseph Holm, tenor. 12.37: Stock Exchange information. 12.40: The Radio Revelers. 12.49: Ciella Genoni McNeil, soprano. 12.56: The Radio Revelers. 1.5: Meteorological information. Weather forecast for Victoria, New South Wales, South Australia, and Tasmania. Ocean forecasts. River reports. Rainfall. 1.10: E. Mason Wood, baritone. 1.17: The Radio Revelers. 1.26: Ciella Genoni McNeil, soprano. 1.33: The Radio Revelers. 1.40: Description of football match, Richmond v. Carlton, at Richmond, by Percy Steele.

### AFTERNOON SESSION

2.13: Description of Hurdle race, 2 miles, Mentone races, by Eric Welch. 2.20: Description of baseball, Richmond v. Carlton, at Richmond. 2.43: Description of Mentone Plate, 8 furlongs, Mentone races. 3.0: Description of football match, Richmond v. Carlton, at Richmond, by Rod McGregor. 3.3: Description of football match, South Melbourne v. Melbourne, at South Melbourne. 3.13: Description of Brush Steeplechase, 2 miles 1 furlong, Mentone races. 3.20: Description of football match, v. Melbourne, at South Melbourne. 3.13: Description of football match, South Melbourne v. Melbourne, at South Melbourne. 3.43: Description of Mentone Handicap, one mile and a quarter, Mentone races. 3.47: Description of football match, Richmond v. Carlton, at Richmond. 4.0: Sonor-recital from the studio. 4.13: Description of Mentone Purse, 1 mile, Mentone races. 4.20: Description of football match, South Melbourne v. Melbourne, at South Melbourne. 4.30: Description of football match, Richmond v. Carlton, at Richmond. 4.43: Description of Jumpers' Flat race, one mile and a quarter, Mentone races. 4.50: Description of football match, South Melbourne v. Melbourne, at South Melbourne. 5.0: "Herald" news service. 5.10: Football descriptions continued. 5.30: Final scores. 5.35: Close down.

### EARLY EVENING SESSION

6.3: All sporting results. 6.10: Answers to letters and birthday greetings by "Little Miss Kookaburra." 6.25: Musical interlude. 6.30: "Little Miss Kookaburra" knows a story about a little white rabbit named "Snowy." He had such an adventure!

### EVENING SESSION

7.5: Stock Exchange information. 7.15: Market reports. 7.30: News section. Final scores of football matches. 7.43: Birthday greetings. 7.45: "Out of the Past." 7.48: Dr. J. A. Leach will speak on "Ground and Grass-Wrens." 8.0: A Maker of History.

### NIGHT SESSION

Announcer: Frank Hatherley. Accompanist: Agnes Fortune.  
8.1: Programme announcements. 3LO's weekly Tasmanian letter from "The Courier," Launceston. 8.2: The Station Orchestra: Overture, "Chal Romano" (Kitelbey).  
8.10: Senia Chostakoff, tenor: "The Northern Star" (Glinka). "A Dream" (Bartok).  
8.17: The Station Orchestra: Selection, "Tell Me More" (Gershwin). The Sunowner's Radio Revue Co. will present "A Rustic Wedding." Those contributing to the programme are: Archibald Stone-mason, played by J. Harcourt Bailey; Grandpa Lucern, played by J. Harcourt Bailey; Rev. I. M. Merry, played by J. Harcourt Bailey; Joe Quigley, played by J. Harcourt Bailey; Dad Lucern, Robt. Gillard; Dave Lucern, Herbert Sanderson; Bob Merino, Tom Semple; Miss N. E. Goode, Robert Alton; Bill Scarriford, Allen.  
8.37: The Station Orchestra: Fantasy, "The Elfing Giant."  
8.47: The Record feature of the week.  
8.16: Senia Chostakoff, tenor: "The Evening Bells" (Jaroff), with organ accompaniment.  
9.16: The Instrumental Trio.—The Imperial Russian Trio (Arved Niemi, violin; Ivan Berzinsky, cello; Vassili Hister, piano). A programme of special request numbers.  
9.40: Olive Painter, mezzo-soprano: "Sognati" (Schira). "At Dawning" (Cadman).  
9.47: The Station Orchestra: Selection, "La Forza del Destino" (Verdi).  
10.0: Late sporting news.  
10.10: The Station Orchestra: "American Songs" (Cadman).  
10.20: Olive Painter, mezzo-soprano: "Over the Waters Blue" (Mark). "Will Ye No Come Back Again?" (Nairn).  
10.27: The Station Orchestra: Selection, "Vagabond King" (Friml). Announcements.  
10.40: The Radio Revelers (with Hugh Huxham): "It Goes Like This" (Caesar). "What a Girl" (Sanders). "Dynamite" (Henderson). "The Dance of the Blue Danube" (Fisher). "Roseline" (Mc). "Forever More" (Burnett). "Me and the Man in the Moon" (Monaco). "Nebraska" (Sissel). "When You Said Good-night" (Donaldson). Selected. 11.30: "God Save the King."

## 3AR

### MORNING NEWS SESSION

Announcer: Maurice Dudley.  
10.0 to 10.59: See Friday.

### MORNING MUSICAL SESSION

11.0: The Discus Ensemble, introducing Paul White-mans' latest releases and piano and violin selections. 11.50: British official wireless news; announcements; rates of exchange, as supplied by Thos. Cook and Son. 12.0: Close down.

### AFTERNOON SESSION

Announcer: Maurice Dudley.  
Accompanist: Reg. Browne.

3.0: The Station Orchestra—"A Mozart Fantasia," arranged by (Urbach). 3.15: The Smith Girls—selected. 3.22: Ina Morment—"Barcarole in A Major" (Mendelssohn). "Spring Song" (Mendelssohn). "Impromptu in A Flat" variations (Schubert). "Cradle Song" (Schubert). "Serenade" (Schubert-Liszt). "Hark, Hark, the Lark" (Schubert-Liszt). "Am Meer" (Schubert-Liszt). "Melodie in G Flat" (Paderewski). 3.52: Syd Exton, tenor—"Sweet Early Violets" (Sherrington). "When I'm Home Again" (Wood). 4.0: The Station Orchestra—"Scenes Poetiques" (Godard). 4.10: The Smith Girls—selected. 4.17: The Imperial Russian Trio (Arved Niemi, violin; Ivan Berzinsky, cello; and Vassili Hister, piano) in E Flat Major (Beethoven). Allegro Moderato. Adagio. Scherzo. Presto. 4.40: Syd Exton, tenor—"Blue Mountains" (Elgar). "Speak My Heart" (Elgar). 4.47: The Station Orchestra—selected. "The Barber of Seville" (Rossini). 5.0: Close down.

### EVENING SESSION

6.0: Ancient Aera along the Airways—gems from the msters, including Percy Grainger, piano—"Sonata in F Minor, Op. 5" (Brahms), in eight parts. 7.10: News service; announcements. 7.20: Operatic gems, including gems from "The Barber of Seville" (Rossini).

### NIGHT SESSION

Announcer: Renn Millar.  
8.0: All sporting results.  
Accompanist: Reg. Browne.  
8.30: The Coburg City Band—March, "Geelong" (Jones). Waltz, "Gleams of Gold."  
8.40: Beth Corrie, contralto—"Along the Dusty Road" (Gimpson). "Little Sunbonnet of Blue" (Hemery).  
8.47: Ina Morment, harpsichord lessons—"Tempo di Ballo No. 4" (Scazzetti). "No 1 in A Major" (Scazzetti).  
Preludes by Chopin—  
"C Minor. A Major. G Minor."  
"Waltz in G Sharp Minor."  
"D Flat Major and E Minor."  
"Berceuse. Scherzino" (Karganoff).  
"Eiffentanz, at the Brook" (Karganoff).  
"Fragrance from the Garden" (Piesse).  
9.17: The Cairns Quartette—selected.  
9.27: Dorothy Taylor, violin; Florence Eisworth, piano—  
"Sonata Op. 1" (Dvokak).  
"Larghetto" (Handel).  
"Sonata Op. 1" (Dvokak).  
Last Movement.  
9.47: The Cairns Quartette—selected.  
9.57: The Coburg City Band—  
10.7: Beth Corrie, contralto—  
"My Laddie" (Princess Troubetsky).  
"Slumber Song" (Hennel Hart).  
10.14: The Coburg City Band—  
"Sonata A Major" (Frank).  
10.20: News service announcements; late sporting. 10.30: God Save the King.

## 4QG

### MORNING SESSION.

7.48 to 8.30: See Friday.

### AFTERNOON SESSION.

3.0: A programme of electrically-reproduced records. 3.30: Mail train running times. 4.15: The afternoon's news. 4.30: Close down.

### EARLY EVENING SESSION.

6.15: Bi-weekly news service for distance lines. 6.30: 6.45: 6.50: 6.55: 7.00: 7.05: 7.10: 7.15: 7.20: 7.25: 7.30: 7.35: 7.40: 7.45: 7.50: 7.55: 8.00: 8.05: 8.10: 8.15: 8.20: 8.25: 8.30: 8.35: 8.40: 8.45: 8.50: 8.55: 9.00: 9.05: 9.10: 9.15: 9.20: 9.25: 9.30: 9.35: 9.40: 9.45: 9.50: 9.55: 10.00: 10.05: 10.10: 10.15: 10.20: 10.25: 10.30: 10.35: 10.40: 10.45: 10.50: 10.55: 11.00: 11.05: 11.10: 11.15: 11.20: 11.25: 11.30: 11.35: 11.40: 11.45: 11.50: 11.55: 12.00: 12.05: 12.10: 12.15: 12.20: 12.25: 12.30: 12.35: 12.40: 12.45: 12.50: 12.55: 1.00: 1.05: 1.10: 1.15: 1.20: 1.25: 1.30: 1.35: 1.40: 1.45: 1.50: 1.55: 2.00: 2.05: 2.10: 2.15: 2.20: 2.25: 2.30: 2.35: 2.40: 2.45: 2.50: 2.55: 3.00: 3.05: 3.10: 3.15: 3.20: 3.25: 3.30: 3.35: 3.40: 3.45: 3.50: 3.55: 4.00: 4.05: 4.10: 4.15: 4.20: 4.25: 4.30: 4.35: 4.40: 4.45: 4.50: 4.55: 5.00: 5.05: 5.10: 5.15: 5.20: 5.25: 5.30: 5.35: 5.40: 5.45: 5.50: 5.55: 6.00: 6.05: 6.10: 6.15: 6.20: 6.25: 6.30: 6.35: 6.40: 6.45: 6.50: 6.55: 7.00: 7.05: 7.10: 7.15: 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Thebarton Oval—West Torrens v. Glenelg. 5.5: Resume of race results. Final football scores, and close down.

**EVENING SESSION**

6.0: Chimes. Final football scores, and resume of race results. 6.5: Birthday greetings, correspondence, songs, and stories, by "The Wattle Lady." 6.30: Interlude of Dinner Music. 7.0: Chimes. 7.1: Stock Exchange Information. 7.10: Rev. G. E. Hale, B.A.—"Psychology—Thought Transference." 7.30: C. G. Riley on "Items of Interest." 7.45: SCL's sporting service, supplied by "Silvius," including race results at Morphettville and Mentone, and final football scores.

**NIGHT SESSION**

8.0: Chimes. 8.1: From the Malvern Methodist Church, Mendelssohn's Oratorio, "Elijah," to be rendered by the church choir, under the direction of the organist—Mr. Fred Pilgrim. Principal soloist: Soprano, Miss Phyllis Webb, Ip. Mus. M.C., Miss Joy Watson; contralto, Miss Una Andrew, A.M.U.A., Mrs. J. Williamson, A.M.U.A.; tenor, Mr. Lindsay Jessop, Mr. Lewis Dawe. Quartets: Soprano, Miss Lillian Walsh, A.M.U.A., Miss Ina Mansell; contralto, Miss Martha Virgo, Miss Rosa Matters; tenor, Mr. Reg Gurner; bass, Mr. Ray Wood, Mr. Harold Tidemann, Mr. B. J. Cullen. 9.15: Meteorological information, including Semaphore tides. 9.16: Overseas grain report. 9.17: Announcements. 9.20: From Malvern Methodist Church. Continuation of Mendelssohn's Oratorio, "Elijah." 10.30: General news service. Meteorological information. 10.45: Modern dance numbers by the Radio Revellers. 11.0: Close down.

**6WF**

12.0: Tune in. 12.5: Racing anticipations repeated for the benefit of our country listeners. 12.7: Pianoforte solos by Miss Audrey Dean; vocal item. 12.44: Markets, news, etc. 1.0: Time signal. 1.1: Weather bulletin, supplied by the Meteorological Bureau of West Australia. 1.3: Close down. 1.55: Tune in. 2.0: Sporting session—description and results of races run at the Perth Racecourse will be broadcast during the afternoon. 3.30 (approx.): A description of the inter-State 8-oared boat race rowed on the Swan River will be described in progress, being re-broadcast from a portable transmitter installed on an excursion steamer. 5.30 (approx.): Close down. 6.45: Tune in. 6.48: Bedtime stories by Uncle Daffy. 7.12: Sporting results. 7.30: Commercial and general information. 7.45: Talk. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Vocal and instrumental artists from the studio; relay of dance music by Merv. Lyon and his Symphonic Orchestra from Temple Court Cabaret. 8.50: Late news items, by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements; ships within range announcement; late weather bulletin. 9.5: Musical programme continued. 10.30: Close down.

**104.5-METRE TRANSMISSION**

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 6.45 p.m.

**7ZL**

**MIDDAY SESSION.**

11.30 to 12.30: See Friday. 12.30: SLO last-minute selections for Melbourne races; also selections for the Sydney races. 12.55: News service; Railway auction produce sales held at Railway. 1.30: Close down. 2.15: Running description of the Sun Race, two miles, run at Mentone Racecourse, Mentone, Melbourne, Victoria. 2.20: Close down. 2.45: Running description of Mentone Plate, six furlongs, run at Mentone Racecourse, Mentone, Melbourne, Victoria. 2.50: Close down.

**AFTERNOON SESSION.**

3.0: Chimes. 3.4: Transmission from the North Hobart Oval, football match, Cananore v. North-west, described by Sid Jones. 3.15: Description of the Sun Race, two miles, one furlong, Mentone Melbourne. 3.20: Football match, Cananore v. North-west. 3.45: Description of Mentone Handicap, mile and a quarter, Melbourne. 3.50: Football match, Cananore v. North-west. 4.15: Description of Mentons Purse, one mile, Melbourne. 4.20: Football match, Cananore v. North-west. 4.30: Close down. 4.45: Description of Jumpers' Flat Race, mile and a quarter, Mentone, Melbourne. 4.50: All sporting results to hand. 5.0: Close down.

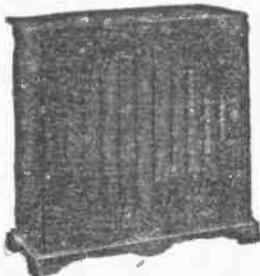
**EARLY EVENING SESSION**

6.15: Music. 6.30: "Uncle David." 7.0: Answers to letters and birthday greetings. 7.15: News session.

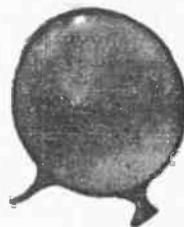
**EVENING SESSION.**

7.30: Roy Johnson will speak on "Manual Training." 7.45: J. M. Counsel will speak on "European Affairs." 8.0: Chimes. 8.6: Transmission from the Prince of Wales Theatre, Macquarie Street, Hobart—Ted McCann and his Orchestra. 10.0: News session. 12.20: Close down.

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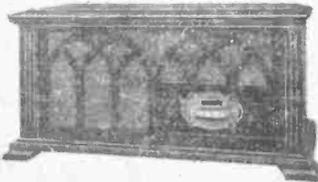
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# Local Programmes, Sunday, May 5

## 2FC

### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.2: Studio music. 10.20: The Captain and his comrades. 10.35: The Comradios bookshelf. 10.40: Studio music. 11.0: Fullerton Memorial Church, corner of Crown and Albion Streets, morning service, conducted by Rev. G. Cowie. 12.15: Approx. Close.

### AFTERNOON SESSION.

Announcer: C. R. Hall.

2.30: Programme announcements. 2.32: Cheer-up session, conducted by Uncle Frank. 3.0: "Big Ben." Popular music. 3.20: C. S. Yarwood will speak on "A. B. Paterson." 3.30: From the Manly Band Rotunda, Manly Beach, the Manly Municipal Band, conducted by James Pheloung 5.0: "Big Ben." Close.

### EVENING SESSION.

Announcer: Laurence Halbert.

6.0: "Big Ben." Programme announcements. 6.2: A talk by C. R. Hall. 6.22: Gwladys Pimister, soprano. 6.29: Kathleen Roe, pianist. 6.36: Gwladys Pimister, soprano. 6.43: Kathleen Roe, pianist. 6.50: From St. Stephen's Presbyterian Church, Phillip Street, Minister, Rev. Hugh Paton. Organist, Mr. Harry Chandler, M.A. Organ prelude.

7.0: Doxology. Hymn 197. Lesson. Prayer. Psalm 40. Lesson. Anthem. Prayer. Hymn 159. Sermon, "How Death Came in and Went Out" (Text. Mark 5:41). Prayer. Hymn 195. Benediction. Vesper.

8.30: From the studio, weather report. 8.31: From the Trades Hall, Lithgow—Overture, "Tancredi." Lithgow Municipal Band.

8.43: Solo, "The Raft" (Pinsitt), Robert Cecil Nicholson.

8.47: Solo, "Softly Awakes My Heart" ("Samson and Delilah"), Rita Lawless.

8.52: Sacred item, "Nearer, My God, to Thee." Lithgow Municipal Band.

9.0: Solo, "The Piper of Love." Mrs. Margaret Lean.

9.4: Characteristic number, "Sliding Thro' the Rye," Lithgow Municipal Band.

9.14: Solo, "Summer Night," Mrs. Robert Arthur Brouff.

9.18: Selection, "Semiramide," Lithgow Municipal Band.

9.33: Solo, "Aberfoyle," Josiah Prior.

9.38: Cornet solo, "Somewhere a Voice is Calling," John Tougher.

9.43: Tone poem, "Loreley," Lithgow Municipal Band.

9.50: Solo, "Waltz Song" ("Tom Jones"), Mrs. Thomas Simon.

9.55: Vocal duet, "Soldiers and Comrades," Josiah Prior and Robert Cecil Nichols.

10.2: Popular numbers—(a) "Spanish Moon." (b) "Jeanine" (I Dream of Lillac Time). Lithgow Municipal Band.

10.10: Solo, "The Carnival," James Simpson.

10.15: From the studio, a recital of celebrity records.

10.28: Late weather and to-morrow's programme.

10.30: National Anthem. Close.

## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.

11.0: G.P.O. chimes. Bourke Street Congregational Church. Morning Service, conducted by Rev. Sydney Herbert Cox. Organist, Mr. Penn Hughes.

Organ Prelude. Call to Worship. Doxology. Prayer of Invocation.

Hymn 438, "Fight the Good Fight." Responsive Reading, 792, Psalm 5. Offertory.

Organ Interlude and Offertory Prayer. Solo, "God Touched the Rose." Mrs. Grace McClelland.

Hymn 434, "Awake, My Soul Stretch Every Nerve."

Pastoral Prayer and Lord's Prayer (chanted).

Anthem, "I am Alpha and Omega." Notices.

Anthem, "Holy Art Thou." Scripture Lesson.

Boys and Girls' Story.

Hymn 369, "Jesus, Lover of My Soul." Sermon, "The Life of Power." Rev. Sydney Herbert Cox.

Hymn 410, "O Blessed Life, the Heart Rest."

Benediction. Organ Postlude.

12.15: From the studio, "Sun" news service. 12.30: Studio music.

2.0: G.P.O. chimes. Close.

### AFTERNOON SESSION.

Announcer: A. C. C. Stevens.

3.0: G.P.O. chimes. From the Masonic Hall, Haberfield, programme arranged by the Haberfield Methodist Church.

4.30: From the Studio, E. J. Davidson will speak on the 100 H. Movement.

5.0: "Big Ben." Close.

### EVENING SESSION.

Announcer: J. Knight Barnett.

Accompanist: G. Vern Barnett.

6.0: G.P.O. chimes. Children's session. Solos by Geoffrey Baskett (boy soprano)—

(a) "There is a Green Hill Far Away" (Gounod).

(b) "Te Deum" (Redman).

7.0: G.P.O. chimes. Musical items.

7.15: The H. W. Varna Company in a studio production of "Daniel." Specially written for the air by Mrs. Mary Leaney. Assisting artists, Muriel O'Malley (contralto), Madeline Evelyn Grieg (dulcitone).

8.15: Musical items.

8.29: From the Polish Association, 7th Street, an orchestral concert, arranged by the Polish Association Orchestra.

9.30: From the Studio, Muriel O'Malley (contralto).

9.37: Madeline Evelyn Grieg (dulcitone).

9.44: Muriel O'Malley (contralto).

9.51: Madeline Evelyn Grieg (dulcitone).

9.58: A recital of selected celebrity records.

10.28: Late weather and announcements.

10.30: National Anthem. Close.

## 2GB

10.0: Organ music from St. Alban's Church, Redfern. 10.30: Morning service from St. Alban's Church. 12 noon: Close down.

Musical session. 5.30: Children's Session, by Uncle George. 7.0: Lecture from Adyar Hall.

8.0: Music from studio. 8.15: Concert, arranged by courtesy of Winkworth and Sons.

pianoforte solo by the Uebel-Lechleiter piano.

8.23: Miss Gladys Aubin, soprano. 8.30: Mr. Len Gregory Valentine, violinist. 8.38: Mr. Len Howell, tenor. 8.45: Miss Heather Kinnaird, contralto. 8.52: Uebel-Lechleiter piano.

Miss Gladys Aubin, soprano. 9.7: Mr. Gregory Valentine, violinist. 9.15: Mr. Len Howell, tenor. 9.25: Uebel-Lechleiter piano. 9.30: Miss Heather Kinnaird, contralto. 9.35: Close down.

## 2UW

10.30: Music and request numbers. 11.0: Close down. 5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: Musical programme. 10.30: Close down.

# Interstate Programmes, Sun., May 5

## 3LO

### MORNING SESSION.

10.30: Bells from St. Pauls Cathedral. 10.45: Express train information; British official wireless news from Rugby; news from yesterday's papers. 11.0: Morning service from Collins Street Baptist Church. Service closes at 12 noon, owing to subsequent Communion service. 12.0: Close down.

### AFTERNOON SESSION.

2.0: Sonora recital of the world's most famous records. 3.0: Pleasant Sunday afternoon service, transmitted from Wesley Church, Lonsdale Street, Melbourne. Chairman: Rev. J. H. Cain. Address, Hon. R. C. Menzies, M.L.C. National Anthem. Benediction; orchestra. 4.30: Close down.

### CHILDREN'S HOUR.

8.45: Shipping information. 5.47: Answers to letters and birthday greetings by "Bobby Bluegum." 6.25: "Brother Bill." "I Went Play in Your Yard." 6.45: Adult birthday greetings. 6.47: Bells from St. Pauls Cathedral, Melbourne.

### EVENING SESSION

7.0: Evensong, choral.

### NIGHT SESSION.

8.30: Malvern Tramways Band—Overture: "Poet and Peasant" (Suppe). March, "Distant Greetings" (Doring). 8.45: Russell Callow, tenor (by permission J. C. Williamson, Ltd.)—Prelude: "The Land of the Rising Sun" (Brown).

8.50: Malvern Tramways Band—Xylophone solo, "Titania" (Rimmer). 8.55: Madame Ella Kingston, soprano—Selections from the works of Schubert and Elgar. 9.10: Professor Bernard Heinze, violin, Stanley Higgins, piano.

First and Last Movement of the "Kreutzer Sonata" (Beethoven). 9.35: Russell Callow, tenor—"The Awakening" (Walter Goelde). "The Living God" (O'Hara).

9.42: Malvern Tramways Band—Selection, "Rigoletto" (Verdi). 9.50: Our great thought for to-night is—"Guilt upon the conscience, like rust upon the iron, both defiles and consumes it."

10.0: God Save the King.

## 3AR

### MORNING SESSION

11.0: Morning service from Scots' Church, Collins Street, Melbourne. 12.15: British official wireless news. Announcements. 12.20: Close down.

### AFTERNOON SESSION.

3.0: The Discus Ensemble in masterpieces by the modern musicians. 4.30: Miss P. F. Yerbury will speak on "All Sorts and Conditions of Men." 4.45: Close down.

### EVENING SESSION.

5.0: "Brer Rabbit"—Stories for the children. 5.30: Close down.

### NIGHT SESSION

Announcer: John Stuart.

7.0: Ancient airs along the airways: Chorus-chromatic and crooning by Cantatrices capable and captivating.

8.0: The Strad Quartette (Ceall Parkes, violin; Myra Montague, piano; Fred Johnstone, cello; Kingsley Parkes, viola). Piano quartette: "The Serenade" (Beethoven) march, "Menuetto"; Adagio. "Polacco"; Variations.

8.18: Moran Hilford, basso: "From Rusby Bed of Silver Nile" (Balfe). "Ye Verdant Hills" (Handel). Chalmers Presbyterian Church, Bathurst Street. 12.30: Close down.

8.30: Joseph Holm, tenor: "O vision entrancing" (Goring Thomas). "Ave Maria" (Mascheroni). 8.35: Kingsley Parkes, viola: "Irish Air" (Hill). "Menuett" (Beethoven). 8.44: Interlude: A talk on hymns by J. Howlett Ross.

9.0: The Strad Trio. Trios: "Song Without Words" (Mendelssohn). "Westmoreland Menuett" (Schubert). "Bolero" (Moszkowski).

9.19: Moran Hilford, basso: "She alone charmeth my sadness" (Gounod). "The Willow Tree" (Kahn). 9.26: Piano recital, Geo. Findlay—a Russian programme: Concert Study in C (Rubenstein). Prelude in C minor (Pachulsky). Valse in A major (Liszt). "Lullaby" (Allinsky). "To Wateiau Landscape" (Godowski). "Humoresque" (Rachmaninoff).

9.44: Joseph Holm, tenor: "At Night" (Rachmaninoff). "Kathleen Mavourneen." 9.51: "Age" news service. Announcements. "God Save the King."

## 4QG

### MORNING SESSION.

11.0: The complete service will be relayed from St. Stephen's Roman Catholic Cathedral. 12.15: Close down.

### AFTERNOON SESSION.

3.15: The band concert will be relayed from the Botanic Gardens. 4.30: Close down.

### EARLY EVENING SESSION.

6.30: Greetings to little listeners and replies to letters.

### NIGHT SESSION.

7.30: The complete evening service will be relayed from St. Stephen's Roman Catholic Cathedral.

At the conclusion of the church service, the concert by the Brisbane Municipal Concert Band will be relayed from Wickham Park. 9.30: Close down.

## 5CL

### MORNING SESSION

10.45: Carillon of bells from Adelaide Town Hall. 11.0: Chimes; service from Black Forest Baptist Church—minister, Rev. H. Roy Heard; organist, Miss Hecker. 12.10: British official wireless news. 12.15: Close down.

### AFTERNOON SESSION

3.0: Chimes. 3.1: A pleasant Sunday afternoon service from Maughan Church, Franklin Street—minister, Rev. W. H. Cann. 4.9: Close down.

### EVENING SESSION

Announcer: G. J. O'Connor. 6.0: Chimes. 6.1: Birthday greetings, correspondence songs and stories by "Miss Wireless." 6.30: "The Bird Lady" and "The Sunshine Songsters" will entertain the children. 7.0: Chimes. 7.1: A religious service from Maughan Church (Central Mission), Franklin Street—minister, Rev. W. H. Cann; organist, Mr. M. Finlay.

### NIGHT SESSION

Announcer: G. J. O'Connor. 8.20: From the studio—Unley Orchestra (conductor, Mr. Norman Sollick)—"Pomp and Circumstance" (Edward Elgar). 8.29: Harold Wenzel, bass baritone—"Don Juan's Serenade" (Tschaiakowsky). "I Heard You Go By" (Daniel Wood). 8.36: Guido Giacchino, "cellist"—"Ave Maria" (Gounod-Bach). "Chanson Triste" (Tschaiakowsky). 8.43: Eileen Starr (of "The Girl Friend" company)—selections from her repertoire. 8.50: Unley Orchestra—"The Mikado" (Gilbert and Sullivan). 9.5: Harold Wenzel, bass baritone—"I Sing Thee Songs of Araby" (Clay). "When the Sunset Turns the Ocean's Blue to Gold" (H. W. Petrie). 9.12: Guido Giacchino, "cellist"—"Spring Song" (Mendelssohn). "Serenade" (Schubert). 9.19: Unley Orchestra—"Dream on the Ocean" (Gung'l). 9.28: Eileen Starr (of "The Girl Friend" company)—selections from her repertoire. 9.35: Unley Orchestra—"Emperor's Review" (Eilenebfg). 8.45: Mr. P. H. Nicholls in an interesting talk about "A Man Who Could Not Die." 10.0: Close down.

## 6WF

10.25: Tune in. 10.30: Special half-hour for the enthusiastic listener-in. 11.0: Morning service, relayed from Lake Street Church of Christ. 12.15: Close down. 2.30: Tune in. 3.35: Musical programme from the studio, including items by the Studio Trio. 3.45: Talk by Rev. Wallace Bird—"Toc H." 4.0: Musical programme continued. 7.0: Tune in. 7.5: Chimes relayed from St. George's Cathedral. 7.30: Evening service, relayed from Salvation Army Fortress. 8.45: Band concert by the Perth City Band, conducted by Mr. Les. M. Pirce. 10.5: Close down.

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## 7ZL

### MORNING SESSION

10.45: Transmission from Trinity Church, Warwick Street, Hobart. 11.0: Transmission from Chalmers Presbyterian Church, Bathurst Street. 12.30: Close down.

### AFTERNOON SESSION

3.30: A sacred and classical programme, arranged by J. M. Counsel. 4.30: Close down.

### EARLY EVENING SESSION

6.15: Chorus singing (conductor, Trevor M. Morris of the Children's Special Service Mission). 6.45: Bertha Southey Brammall will read a poem to the wee folk—"A Little Golden Bunyip."

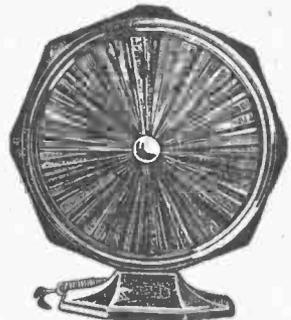
### EVENING SESSION

7.0: Transmission from St. David's Cathedral, Murray Street, Hobart. 8.25: A sacred and classical programme by the Discus Ensemble. 9.45: News session. 9.50: Close down.

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# Local Programmes, Monday, May 6

## 2FC

### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

7.0: "Big Ben" and announcements. 7.2: Official weather forecast; rainfall; river reports; temperatures; astronomical memoranda. 7.7: "Sydney Morning Herald" summary. 7.12: Shipping intelligence; mail services. 7.15: Studio music. 7.25: Investment market; mining sharemarket; metal quotations; wool sales; breadstuffs markets, inter-State markets; produce markets. 7.40: Studio music. 8.0: "Big Ben." Close.

### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.3: Piano/forte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: The 2FC Racing Commissioner, late sporting news. 10.45: A talk on "Home Cooking and Recipes," by Miss Ruth Furst. 11.0: "Big Ben." A.P.A. and Reuters cable services. 11.5: Close.

### MIDDAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Studio music. 12.10: Summary of news, "Sydney Morning Herald." 12.15: Rugby wireless news. 12.18: A reading. 12.30: Studio music. 1.0: "Big Ben." Weather intelligence. 1.3: "Evening News" midday news service; Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Popular studio music. 2.0: "Big Ben." Close.

### AFTERNOON SESSION.

Announcer: Studio, Ewart Chapple.

Announcer: Town Hall, A. S. Cochrane.  
Accompanist: Kathleen Roe.

2.30: Programme announcements. 2.32: The Book Lover's Corner. 3.0: "Big Ben." Popular music. 3.30: "Big Ben." From the Sydney Town Hall, Radio and Electrical Exhibition, 1929. Les. Busse. Melo piano novelties. 3.37: Lotys Lescaut, soprano. 3.45: Dorothy Farmer, pianist—a brilliant young student from the studio of Alexander Sverjensky. (a) "Nocturne in C Sharp Minor" (Chopin). (b) "Arabesque" (Debussy). 3.54: Dorothy Benbow, contralto—(a) "My Ships" (Barrate). (b) "Little Brown Cottage" (Dickson). 4.1: Les. Busse. Melo piano novelties. 4.8: Lotys Lescaut, soprano. 4.16: Dorothy Farmer, pianist—(a) "Orilien" (Schumann). (b) "Variations" (Paganini-Liszt). 4.23: Dorothy Benbow, contralto—(a) "Song of the Sword" (Bantock). (b) "Still as the Night" (Bohm). (c) "Coming Home" (Willeby). 4.30: From the studio, popular music. 4.45: Stock Exchange, third call. 4.47: studio items. 5.0: "Big Ben." Close.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The children's session, conducted by the "Hello Man." Letters and stories. Music and entertainment. 6.30: Dalgely's market reports (wheat, and stock). 6.40: Fruit and vegetable markets. 6.45: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby wireless news. 6.50: Late sporting news. 7.0: "Big Ben." Late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Apple Blossoms" (Stede). (b) "Cecil" (M'Kee). (c) "By the Waters of Minnetonka" (Lieurance). (d) "Three Light Pieces" (Fletcher). (e) "Me and the Man in the Moon" (Monaco). (f) "An Old Adobe" (Scherzinger). (g) "Little Lady of the Moon" (Coates).

### EVENING SESSION.

Announcer: Laurence Haibert.

Accompanist: Ewart Chapple.

7.40: Popular music.  
7.45: Programme announcements.  
7.48: Studio items.  
8.0: "Big Ben." Denning Lee Quartet.  
8.12: Iris de Calros Rego, pianist—  
(a) "Two Little Sonatas" (Durante).  
(b) "Rhapsodie in B Minor" (Brahms).  
8.25: Vera Keogh, in an Irish play, "The Briery Gap" (Murray).  
8.50: Dorothy Nall, songs at the piano—  
(a) "Gardening" (Barnett).  
(b) "Second Hand Rose" (Hanley).

(c) "Michael and His Motor Cycle" (M'Carthy).  
8.57: Weather report.  
8.58: Iris de Calros Rego, pianist—  
(a) "Prelude" (Grieg).  
(b) "Humoreske" (Reger).  
(c) "Barcarole" (Rubinstein).  
(d) "Tocatta" (Jonas).  
9.8: Denning Lee Quartet.  
9.30: Albert Cazabon, violinist.  
9.30: Denning Lee Quartet.  
9.40: Vera Keogh, in a humorous sketch.  
9.50: Albert Cazabon, violinist.  
10.0: "Big Ben." Dorothy Hall, comedy sketch, "The Song of Sixpence."  
(a) "As a Scotsman."  
(b) "As a Curate."  
(c) "As a Cockney."  
10.10: Studio items.  
10.28: Late weather and to-morrow's programme.  
10.30: National Anthem. Close.

## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: G.P.O. chimes. Weather report, State and metropolitan. 8.3: Studio music. 8.30: G.P.O. chimes. News and information service from the "Daily Telegraph Pictorial." 9.0: G.P.O. chimes. Studio music. 9.30: G.P.O. chimes. Half an hour with silent friends. 10.0: G.P.O. chimes. Close.

### MIDDAY SESSION.

Announcer: A. C. C. Stevens.

11.0: G.P.O. chimes. 2BL Women's Sports Association session, conducted by Miss Gwer Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield. 12.0: G.P.O. chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "Sun" midday news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital. 2.0: G.P.O. chimes. Close down.

### AFTERNOON SESSION.

Announcer: A. C. C. Stevens.

Accompanist: Kathleen Roe.  
3.45: G.P.O. chimes. The Melody Trio. 3.55: Leo Packer (baritone). 4.2: Captain Fred Aarons will speak on "The Necessary Factors of Home Life." 4.17: The Melody Trio. 4.27: Bunty Stuart (contralto). (a) "Hark! What I Tell to Thee" (Haydn). (b) "My Prayer" (Squire). (c) "All Souls' Day" (Lassen). 4.34: The Melody Trio. 4.44: Leo Packer (baritone). 4.51: The Melody Trio. 5.1: "Sun" news service. 5.6: The Melody Trio. 5.20: Studio items. 5.33: Resume of the trots. 5.37: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcer: Basli Kirke.

5.40: Children's session, conducted by Uncle Bas. Music and entertainment. Letters and stories. 6.30: "Sun" news and late sportine. 6.40: 2BL Dinner Quartette. (a) "Cheero" (Finck). (b) "The Cinema Star" (Gilbert). (c) "Praise" (Wood). (d) "Three Dances. Nell Gwyn" (German). (e) "The Curtain Falls" (d'Hardelot). (f) "Sally of My Dreams" (Kernell). (g) "Full Moon" (Woolmer). 7.7: Australian Mercantile, Land, and Finance Co.'s report. Weather report and forecast, by courtesy of Government Meteorologist. Producers' Distributing Society's Fruit and Vegetable Market report. Grain and fodder report ("Sun"). Dairy produce report ("Sun"). 7.25: Mr. Film and Miss Pam in advertising talks, handy hints, and non-sense. 7.53: An Ad. Special. 7.55: Programme and other announcements.

### EVENING SESSION.

Announcer: A. C. C. Stevens.

Accompanist: Kathleen Roe.

8.0: G.P.O. chimes. 2BL Topical Chorus.  
8.2: From the Sydney Town Hall, Radio and Electrical Exhibition, 1929.  
2BL Light Orchestra, conducted by Horace Keats. "The Desert Song" (Romberg).  
8.16: Charles Lawrence in a few happy moments.  
9.28: Ashfield Choral Society—  
(a) "The Song of the Vikings" (Fanning).

(b) "Great God Pan" (Farebrother).  
8.36: "Ye Merrie Trio"—  
(a) "Me and the Man in the Moon" (Lille).  
(b) Soubrette, "Sonny Boy" (Jolson).  
(c) Violin solo, "Minuet" (Beethoven).  
(d) "There's a Rainbow Round My Shoulder" (Jolson).  
8.48: 2BL Light Orchestra, conducted by Horace Keats—  
"Catherine" (Tschalkowsky).  
9.0: From the Studio. G.P.O. chimes. Weather report.  
9.1: Ashfield Choral Society—  
"Mid the Waving Rose Trees" (Cowan).  
9.11: Charles Lawrence in a few happy moments.  
9.21: "Ye Merrie Trio."  
9.31: 2BL Light Orchestra, conducted by Horace Keats—  
(a) "Songs from the Old Folks" (arr. Lake).  
(b) Selected.  
9.46: G. J. Hill, "The Idiosyncracies of the Motor-car."  
10.0: G.P.O. chimes. Kitty Poole (popular vocalist)—  
(a) "That's Just My Way of Forgetting You" (Henderson).  
(b) "She's a Home Girl" (Henderson).  
10.7: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.  
10.20: Kitty Poole (popular vocalist)—  
(a) "She's Gotta Have Me" (Long).  
(b) "That's My Mammy" (Nelson).  
10.28: Late "Sun" news.  
10.40: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.  
10.57: To-morrow's programme.  
10.59: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.  
11.30: National Anthem. Close.

## 2GB

10.0: Music. 10.10: Happiness talk by A. E. Bennett. 10.20: Music. 10.30: Women's Session, by Miss Helen J. Beegling. 11.00: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.55: Music. 3.15: Close down. 5.30: Children's Session, by Uncle George. 7.0: Music. 7.00: Feature story. 8.0: Miss Marjorie Allmon contralto. 8.7: Miss Ada Brook, pianist. 8.15: Mr. Victor Earle, baritone. 8.22: Instrumental music. 8.30: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.35: Miss Gladys Verona, soprano. 8.6: Address. 9.0: Weather report. 9.3: Instrumental music. 9.15: Miss Marjorie Allmon, contralto. 9.20: Mr. Heath Burdock, Shakespeare recital. 9.30: Mr. Victor Earle, baritone. 9.40: Instrumental music. 9.50: Mr. Heath Burdock. 9.55: Miss Gladys Verona, soprano. 10.5: Dance music. 10.30: Close down.

## 2UW

### MIDDAY SESSION.

12.30: Music. 1.0: G.P.O. clock and chimes. Music. 1.15: Talk on Homecraft, by "Pardora." 1.30: Music. 2.30: Close down. 4.30: Musical programme.

### EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes. Request numbers, Mrs. 7.45: Wireless talk, by Mr. E. Hounfray. 8.0: Request items. 9.0: G.P.O. clock and chimes. Comments on foreign affairs, by Mr. J. M. Practice. 9.10: Music and request numbers. 10.30: Close down.

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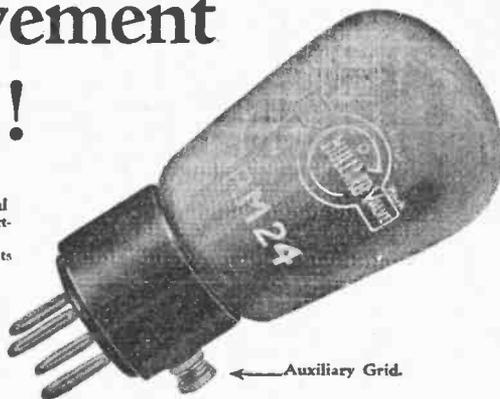
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# Interstate Programmes, Monday, May 6

## 3LO

### EARLY MORNING SESSION

7.15 to 8.15: See Friday.

### MORNING SESSION

11.0: To-day's radio recipe—tea cakes. 11.5: Miss Olga Parker will speak on "Stories to Tell the Children." 11.25: Under the auspices of the St. John Ambulance Association, Miss Edith Wells will speak on "Home Nursing." 11.45: Under the auspices of the National Safety Council of Victoria, H. J. Book will speak on "Some Aspects of Safety."

### MIDDAY SESSION

12.0: Melbourne Observatory time signal. 12.1: British official wireless news from Rugby; Reuters's and the Australian Press Association cables. "Argus" news service. 12.15: Newmarket stock sales; entries for the market for Tuesday, Wednesday, and Thursday, by the Associated Stock and Station Agents, Bourke Street. 12.30: Community singing, transmitted from the King's Theatre, Melbourne, conductor, G. J. Mackay. 12.45: Radio Revelers, with Hugh Huxham, Russell Callow, tenor (by permission of J. C. Williamson, Ltd.), Huxham's "Peaches." 12.40: Stock Exchange Information. 12.43: Community singing resumed. 1.45: Meteorological information: weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecasts; river reports; rainfall. 1.50: Close down.

### AFTERNOON SESSION

2.15: General programme, including the Strad Trio—Julia Russell, soprano; Cecil Parkes, violin; Myra Montagu, piano. 3.12: Capt. Donald MacLean; Mary Holtan, mezzo-soprano. 4.0: Dorothy Stephen, entertainer; Stanley J. Allen, tenor. 4.54: "Herald" news service; Stock Exchange Information. 5.5: Close down.

### CHILDREN'S HOUR

6.0: Answers to letters and birthday greetings by "Billy Bunty." 6.25: Musical interlude. 6.30: William O. Groves will continue his series of talks on "The Peter Pan of the Pacific."

### EVENING SESSION

7.5: Stock Exchange information. 7.15: Market reports. 7.30: News session. 7.43: Birthday greetings. 7.45: Out of the past. 7.46: Under the auspices of the Department of Agriculture, T. J. Smith, tobacco expert, will speak on "Grading and Packing Tobacco."

### NIGHT SESSION

Announcer: John Stuart. Accompanist: Agnes Fortune. 8.0: The Station Orchestra—Overture, "The Coliph of Bagdad" (Boieldieu). "A Fanciful Vision" (Rubinow). 8.10: Vida Lugg, mezzo-soprano—"The Flower." "Yours Is My Heart" from "Lilac Time." 8.17: The Station Orchestra—Selection of Haydn's Wood songs. 8.27: Captain Ronald MacLean—"Peas of the Mighty." 8.42: The Station Orchestra—Selection, "The Pearl Fishers" (Bizet). 8.52: Vida Lugg, mezzo-soprano—"Cuckoo" (Shaw). "Jug's Choral Song" (Walc). 9.0: Choral items from the Royal Victorian Orchestra—Part song, "Hymn to Sons of Art" (Mendelssohn). Unaccompanied—Part songs: (a) "Farewell, thou Lovely Forest Glade (Abt); (b) "A Lullaby" (Williams). Part song: "The Sealed Letter" (Sullivan). Unaccompanied part songs—(a) "Lovely Night" (Chirael). (b) "To Stella" (Williams). Operatic chorus—"Bandit's Chorus" from "Ernani" (Verdi). 9.30: The Station Orchestra—Selection, "The Gipsy" (Schubert). 9.37: Jack Hocking, the Singing Serenader—9.27: Jack Hocking, baritone—"Rain." "Mexican Serenade." 9.42: The Imperial Russian Trio (Arved Nord, violin; Ivan Berzinsky, cello; Vassili Ister, piano)—"Trio in A Minor" (Tschalkowsky). "Allegro Moderato," "Allegro." "Claps" (Moszkowsky). 10.10: News session. 10.20: The Station Orchestra—"Musical Gems" (Tschalkowsky). 10.30: Jack Hocking, baritone—"Sonny Boy." "Down Linger Longer Lane." 10.37: The Station Orchestra—Selection, "Wonderful Girls in Blue" (Yeumans). 10.47: The Radio Revelers—"Where the Cot-Cot-Cotton Grows" (Ellen). "Cinnamon Oake" (Bernard). "My Fleuret" (Kimbrough). "Avalon Town" (Brown). "Shake That Thing" (Jackson). "Glad Rag Doll" (Ager). "You Are" (Scherer). "Ash." "Honey-moon Waltz" (Renault). "There Ought to Be a Law Against That Friend." "Little Mother" (Rapee). "Oh, Ya Ya" (Frich). 11.30: God Save the King.

## 3AR

### MORNING SESSION

10 to 10.59: See Friday.

### MORNING MUSICAL SESSION

11.0: Terpshorian Tinlimbulations. 11.20: British official wireless news. Announcements. 12.30: Close down.

### AFTERNOON SESSION

3.0: Ballads. 3.30: The Imperial Russian Trio. 4.0: Ballads. 4.30: Close down.

### EVENING SESSION

6.0: Ancient airs and newest releases. 7.10: News service. Announcements. 7.20: Ancient airs and newest releases.

### NIGHT SESSION

Announcer: John Stuart. Accompanist: Reg. Brown. 8.0: E. C. H. Taylor will speak on "School Life and School Sport." 8.15: Under the auspices of the Historical Society of Victoria: A. S. Kenyon, "The Overlanders." 8.30: H. H. Harmann, manager of the Welfare Travel Department of Burns, Philp, will give "A Talk on Gallipoli." 8.40: The Radio Revelers: "Fireworks" (Williams). "Just Keep Singing a Song" (Sissell). "Roses of Yesterday" (Berlin). 8.49: Dorothy Stephen, entertainer: "That's Her Now." 8.52: The Radio Revelers: "Jo-Anne" (Ward). "Gipsy" (Gilbert). "Honey" (Simons). 9.1: Jessie Irwin, soprano: "The Elf Man" (Wells). 9.4: The Radio Revelers: "Flower of Love" (Ruby). "When the Right One Comes Along" (Gilbert). "Wear a Hat with a Silver Lining" (Sherman). 9.13: Thelma Ready, banjo: "Mummy." 9.16: The Radio Revelers: "One Alone" (Romberg). "The Desert Song" (Romberg). "It Goes Like This" (Caesar). 9.25: Dorothy Stephen, entertainer: "Roses of Yesterday." 9.28: The Radio Revelers: "What a Girl" (Sandars). "Dynamic" (Henderson). "The Dance of the Blue Danube" (Fisher). 9.37: Jessie Irwin, soprano: "Because of You" (Liddle). 9.40: The Radio Revelers: "Rose Time" (Hall). "Forever More" (Burnett). "Me and the Man in the Moon" (Monaco). 9.49: Thelma Ready, banjo: "Sleep, Little Coon." 9.52: The Radio Revelers: "Nebraska" (Sissell). "When You Said Good-night" (Donaldson). "Little Irish Rose" (Zamenick). 10.10: Dorothy Stephen, entertainer: "Cradle of Love." 10.4: The Radio Revelers: "Dorothy Dooley Do" (Sherwin). "Counting the Milestones" (Tilsey). "My Starlight." 10.13: Jessie Irwin, soprano: "Everywhere I Look" (Carew). 10.15: The Radio Revelers: "Daybreak" Selected. 10.20: "Age" news service. Announcements. "God Save the King."

## 4QG

### EARLY MORNING SESSION

7.43 to 8.30: See Friday.

### MORNING SESSION

11.0: Music. 11.5: Social news. 11.15: Lecturette. 11.45: Wurlitzer Organ. 12.00 news: Close down.

### MIDDAY SESSION

1.0: Market reports and weather information. 1.20: Lunch-hour music. 2.0: Close down.

### AFTERNOON SESSION

3.0: Orchestral music. 3.30: Mail train running times. 3.35: Orchestral music. 4.15: Afternoon news services; close down.

### EARLY EVENING SESSION

6.0: Mail train running times; mail information, shipping news &c. Wurlitzer Organ. 6.35: Commercial announcements. 6.30: Bedtime stories, conducted by "The Sandman." 7.0: News in brief. 7.5: Stock Exchange news, etc. 7.45: Lecturette, "The Children's Music Corner," conducted by "The Music Man."

### NIGHT SESSION

Announcer: H. Humphreys. 8.0: The Waiana Hawaiian Band—"When It's Love Time in Hawaii." 8.5: George Williamson, tenor—"Duna" (McGill). 8.9: Harry Humphreys—"A Results of Reading." "David, Uriah Keep, and Mrs. Keep" (from "David Copperfield"). 8.21: E. H. Radcliffe and C. Schmeig—"Instrumental duet, 'Southern Blues.'" 8.25: Jill Manlove, soprano—"The Dawn Has a Song" (Phillips). 8.30: A Thought for To-night (Will H. Lister) "To-day." 8.35: Vincent Conolly, baritone—"Beneath the Window" (Tschekmacher). 8.39: The Waiana Hawaiian Band—"Isle of Golden Dreams." 8.44: Jean Naylor, contralto—"Softly Awakes my Heart" (Saint-Saens). 8.48: E. H. Radcliffe, guitar solo—"Alaskan Waltz." 8.55: George Williamson, tenor—"Song of Sleep." 9.0: Metropolitan weather forecast.

9.1: Jean Naylor, contralto—"Sing To me, Sing" (Henley). 9.6: Jill Manners, soprano—"A Heart That's Free" (Robyn). 9.11: Harry Broaddale, elocutionist—"The Difference" (Kelly). "Person's Announcements" (Anon). "Old Tin Liz" (Crist). 9.21: Vincent Conolly, baritone—"The Blind Ploughman" (Clarke). 9.25: The Waiana Hawaiian Band—"Hilo March." 9.30: A recital of selected electrically reproduced records. 10.0: News; weather; close down.

## 5CL

### MORNING SESSION

11.0: Chimes. 11.1: Morning melodies. 11.11: Kitchen Craft and menu talk. 11.45: Miss Leahy McLeod, of Weber, Shortrose, and Rice, will speak on "Physical Culture for Women." 12.15: General news service; British official wireless news. 12.30: Railway information; Stock Exchange information; meteorological information. 1.0: Chimes. 1.2: Lunch-hour recital. 1.50: Meteorological information. 2.0: Close down.

### AFTERNOON SESSION

3.0: Chimes; general programme, including Station Quartette; Ivy Jones, soprano; Jack Stock the Woman Rider; Frank McCabe, baritone; Edna Roach, violinist; Edna Lawrence, contralto. 12.30: Stock Exchange information. 5.0: Close down.

### EVENING SESSION

6.0: Chimes. 6.1: Birthday greetings, correspondence, songs, and stories by "Auntie Peggy." 6.2: Interlude music. 6.50: Sporting service, spoken by "Silvius," including acceptance for Mordialville for Wednesday. 7.0: Chimes. 1.1: Stock Exchange information. 7.6: General market reports. 7.10: Under the auspices of the South Australian Agricultural Department, an officer of the department will speak. 7.40: SCI Triplet Boys' Club.

### NIGHT SESSION

Announcer: C. J. O'Connor. 8.0: Chimes. 8.1: Fiedmarsh Municipal Band (conductor, Mr. J. S. Cliffe)—Overture, "St. Etials Roll" (If I Were King (Adam). 8.10: Elizabeth Wily, mezzo-soprano—"What a Wonderful World It Would Be" (Herman Lohr). "Waiaata Poi" (alfred Hill). 8.15: Reed and Harding, Hawaiian Duo—in enchanting Hawaiian tunes. 8.23: Herbert King, tenor—"Forever Is Best" (Hermann Lohr). "Lollis" (Pezzer). 8.30: Hindmarsh Municipal Band—March, "Three D.G.'s" (Broody); dance, "A Coon's Remembrance" (Burns); fox-trot, "I Never See Man Alone" (Lyonel). 8.42: A one-act comedy entitled "The Bride and the Burglar," produced by Mr. Burgess—characters, The Husband (Jack Burrell), The Bride (Beryl Alford), The Burglar, (Morgan Dorman); scene, the living-room of a modern furnished house; wedding gifts, bouquets with cards attached are on the table; the husband is discovered carrying in small baggage outside a man in a raving. 9.0: Chimes. 9.11: Meteorological information, including semaphore lights. 9.2: seas grain report. 9.3: Hindmarsh Municipal Band—selection, "The Spirit of Youth" (Grove-wood). 9.14: Elizabeth Wily, mezzo-soprano—"Christina" (Arthur Penn). "A Bird's Lich" (Eric Coates). 9.21: Reed and Harding, Hawaiian Duo—more fascinating melodies. 9.27: Herbert King, tenor—"The Kerry Dance" (J. L. Molloy). "Donna e Mobile" (Verdi). 9.34: Hindmarsh Municipal Band—Fantasia, "Kenilworth" (Robert M. Jack Stocks, the Woman Hater, will entertain us with "Matrimonial Remedies." 10.0: Chimes. 10.1: Hindmarsh Municipal Band—Waltz, "The Red Rose" (Trussell); cornet solo, "The Virtuoso" (Grove-wood); march, "Lights Out" (M'Anally). 10.15: General news service; meteorological information. 11.30: Modern dance numbers by the "Radio Orchestra." 11.0: Close down.

## 6WF

12.0: Tune in. 12.5: Musical programme from the studio, including classical solos by Audrey Dean. 12.50: Markets, news, etc. 1.1: Time signal. 1.1: Weather bulletin. 1.5: Close down. 1.55: Tune in for sporting session—results and results of events. 2.0: News and general will be broadcast during the afternoon. 2.0: Close down. 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Station Quartette. 7.20: News and general information. 7.45: Talk by Lieut. Colonel Leavelle, Director, Zoological Gardens, South Perth. 8.1: Time signal. 7.1: First weather bulletin. 8.1: Concert by the R.S.L. Band, conducted by Mr. George Meller. 8.20: Talk by Mr. J. Cowie, of the Orient Touring Co. 8.50: Late news items, courtesy of "The Daily News" Newspaper Co. Late station announcements, commercial and general announcement; late weather bulletin. 9.5: Programme continued from the studio. 10.30: Close down. 10.5-METRE TRANSMISSION. Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 1.15 p.m.

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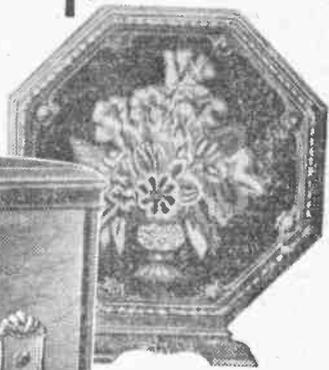
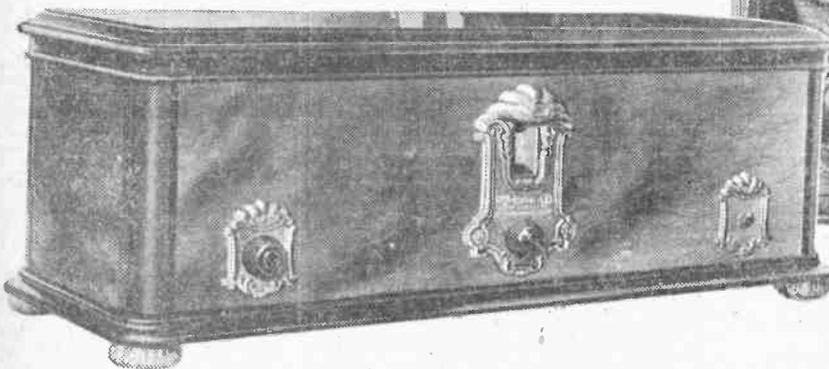
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# Local Programmes, Tuesday, May 7

## 2FC

### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

7.0: "Big Ben" and announcements. 7.3: Official weather forecast; rainfall; river report; temperatures; astronomical memoranda. 7.7: "Sydney Morning Herald" summary. 7.12: Shipping intelligence; mail services. 7.15: Studio music. 7.25: Investment bonds; wool sales; braceduffs markets; Inter-Estate markets; produce markets. 7.40: Studio music. 8.0: "Big Ben"; close down.

### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.30: Last minute sporting information by the 2FC Racing Commissioner. 10.40: Studio music. 10.50: Pianoforte reproduction. 11.0: "Big Ben". 11.5: A. P. A. and Reuter's cable services. 11.5: Close down.

### MIDDAY SESSION

Announcer: A. S. Cochrane.

Note—Race results from Menangle. 12.0: "Big Ben" and announcements. 12.2: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Musical items. 12.10: Summary of news. "Sydney Morning Herald." 12.15: Rugby Wireless news. 12.18: A reading. 12.30: Studio music. 1.0: "Big Ben"; weather intelligence. 1.3: "Evening News" midday news service; Producers' Distributing Society's market report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Studio music. 2.0: "Big Ben"; close.

### AFTERNOON SESSION.

Announcer: Studio—Ewart Chapple. Accompanist: Town Hall—Laurence Halbert. Accompanist: Kathleen Roe.

2.30: Programme announcements. 2.32: The Book Lover's Corner. 3.0: "Big Ben"; popular items. 3.3: "Big Ben"; from the Sydney Town Hall. Radio and Electrical Exhibition, 1929.—The Popular Trio. Instrumentalists. 3.40: Frederick Scott Fox baritone—(a) "Mate o' Mine" (Elliot); (b) "Macushla" (MacMurrour); (c) "An Emblem" (Thompson). 3.47: Anne Stuart Gurr, mezzo-soprano—(a) "The Wind" (Granville Bantock); (b) "Rain Drops" (Granville Bantock); (c) "My Soul" (Carrie Jacobs-Bond). 3.54: The Popular Trio, instrumentalists. 4.4: Frederick Scott Fox, baritone—(a) "All Joy be Thine" (Sanderson); (b) "I Pity My Lonely Caravan at Night" (Cretes); (c) "Four Eyes have told me What I Did Not Know" (O'Hara). 4.12: The Popular Trio, instrumentalists. 4.18: Anne Stuart Gurr, mezzo-soprano—(a) "Over the Steeps" (Gretchen); (b) "Wayfarer's Night Song" (Pasthorne-Martin). 4.24: The Popular Trio, instrumentalists. 4.30: From the Studio—Studio items. 4.45: Stock Exchange, third call. 4.47: Studio items. 5.0: "Big Ben"; close.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The Children's session, conducted by the Hello Man, assisted by Aunt Elly; letters and stories; music and entertainment. 6.30: Dalgety's market reports (wool, wheat, and stocks). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby Wireless news. 6.50: Late sporting news. 7.0: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Melodie" (Tschalkowsky); (b) "The Girl of the Golden West" (Puccini); (c) "Liebestraum" (Von Blon); (d) "Avalon" (Brown); (e) "Londonderry Air" (arr. Kreisler).

### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Popular music. 7.45: Programme announcements. 7.48: Studio items. 8.0: "Big Ben" From Goulburn—A concert programme arranged by the Goulburn Choral Society. Assisting artists: Alexander Sverensky, Spencer Thomas. 9.0: "Big Ben" From the Studio—Brunton

Gibb in a series of topical sketches, "Oh, by the Way."

9.12: From Goulburn—second half of concert programme arranged by the Goulburn Choral Society.

10.20: From the Studio—Studio Dance Band, conducted by Cec Morrison.

10.28: Late weather.

10.30: Studio Dance Band, conducted by Cec Morrison.

10.57: To-morrow's programme.

10.59: Studio Dance Band, conducted by Cec Morrison.

11.30: National Anthem; close.

## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: G.P.O. chimes. Weather report, State and metropolitan. 8.3: Studio music. 8.30: G.P.O. chimes. News and information service from the "Daily Telegraph Fictorial." 9.0: G.P.O. chimes. Studio music. 9.30: G.P.O. chimes. Half an hour with silent friends. 10.0: G.P.O. chimes. Close.

### MIDDAY SESSION.

Announcer: A. C. C. Stevens.

11.0: G.P.O. chimes. 2BL Women's Sports Association Session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Sister Parry will give a talk on the work of the St. John Ambulance Association. 12.0: G.P.O. chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "Sun" midday news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital. 2.0: G.P.O. chimes. Close down. Note: Race results by courtesy of the "Sun" Newspapers from Menangle.

### AFTERNOON SESSION.

Announcer: A. C. C. Stevens.

Accompanist: Kathleen Roe.

3.45: G.P.O. chimes. Popular music. 3.50: Romano's Dance Orchestra, conducted by Bennie Abrahams. 4.0: G.P.O. chimes. Frank Bucknell will speak on the "Thermonic Valve." 4.15: Laurel Mather (soprano). (a) "Damon" (Stange). (b) "The Charm of Spring" (Clarke). 4.22: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.32: From the studio. Popular items. 4.43: Laurel Mather (soprano), (a) "A Heart That's Free" (Robyn). (b) "April is a Lady" (Phillips). 4.50: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 5.0: From the studio. G.P.O. chimes. "Sun" news service. 5.7: Pianoforte reproduction. 5.17: Popular music. 5.30: Racing resume. 5.37: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcer: Basil Kirke.

5.40: Children's session, conducted by Uncle Bas. Music and entertainment. Letters and stories. 6.0: Mr. Norman speaks to the "Bigger Boys." 6.45: "Sun" news and late sporting. 6.55: 2BL Dinner Quartette. (a) "La Patronille de Nint" (Martelli). (b) "Marsinah" (Carton). (c) "Love's Enchantment" (Brookes). (d) "The Gondollers" (Sullivan). (e) Meditation. "Thais" (Massenet). 7.7: Australian Mercantile, Land, and Finance Co.'s report. Weather report and forecasts, by courtesy of Government Meteorologist. Producers' Distributing Society's Fruit and Vegetable Market report. Grain and fodder report ("Sun"). Dairy produce report ("Sun"). 7.25: Mr. Plim and Miss Pam in advertising talks, handy hints, and nonsense. 7.53: An Ad Special. 7.55: Programme and other announcements.

### EVENING SESSION.

Announcer: Basil Kirke.

Accompanist: G. Vern Barnett.

8.0: G.P.O. chimes. 2BL Topical Chorus. 8.2: From the Sydney Town Hall. Radio and Electrical Exhibition, 1929. The North Sydney Tramway Band—(a) March, "La Carne" (Wood). (b) Descriptive Selection, "A Hunting Trip" (Holloway).

(c) Waltz, "Beauty's Bower" (Greenwood).

8.16: Graham Burgin and Ruby Dunstan vocal duets—

(a) "Spirit of the Wood" (Parker). (b) "Passage Bird's Farewell" (Mendelssohn).

8.23: Rene Rich (violinist)—

(a) "Dance of the Goblins" (Bazzini). (b) "Ramona" (Wayne).

8.32: The Two Wireless Wits. Just a little nonsense—

(a) Duologue. (b) "Sing, My Lads, Yo Ho!" (M.S.).

8.42: Leo Rowan (tenor), winner in the recent Radio Elsteddfod—

(a) "Bird Songs at Eventide" (Coates). (b) "Smilin' Through" (Pann).

8.50: The North Sydney Tramway Band—

(a) "Mexican Serenade" (M'Anally). (b) Overture, "Lustspiel."

9.0: From the studio. G.P.O. chimes.

Weather report.

9.1: Graham Burgin and Ruby Dunstan (vocal duets)—

(a) "A Summer Night" (Thomas). (b) "Love and Friendship" (Pinsuti).

9.11: "Bringa" will speak on the aborigines.

9.26: Rene Rich (violinist)—

(a) "Oberlass Mazurka" (Wienlawski). (b) "That's My Weakness Now" (Greenstep).

9.33: Will Carter, Australian Bush Sketches.

9.40: The North Sydney Tramway Band—

(a) March, "Royal Artillery" (Hume). (b) Selection, "Motor Trip" (Douglas). (c) Fantasia, "Elarendon" (Greenwood).

9.55: The Two Wireless Wits. Just a Little Nonsense—

(a) "Panel Parley." (b) "Some Military Patter: The Recruiting Sergeant."

10.2: Leo Rowan (tenor).

(a) "To be Near the Loved One" (Rosa). (b) "Malden Mine" (Bennett).

10.9: Will Carter in Cameos of the Bush.

10.17: Rene Rich (violinist).

Selected.

10.24: Late weather and to-morrow's programme.

10.30: National Anthem. Close.

## 2GB

10.0: Music. 10.10: Happiness talk by A. E. Bennett. 10.20: Music. 10.30: Women's Session, by Miss Helen J. Beegling. 11.30: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.50: Music. 3.15: Close down. 5.30: Children's Session, by Uncle George. 7.0: Music. 7.30: Talk from the Radio Service Department, by Mr. Sam Crittenden. 8.0: Mr. Gregory Valentine, violinist. 8.7: Miss Betty Ramsay, contralto. 8.15: Instrumental music. 8.23: Mr. Leslie Herford, baritone. 8.30: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.35: Miss Hilda Boyle, soprano. 8.45: Instrumental music. 8.50: Miss Betty Ramsay, contralto. 9.0: Weather report. 9.3: Address. 9.15: Mr. Gregory Valentine, violinist. 9.35: Mr. Leslie Herford, baritone. 9.35: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.40: Instrumental music. 9.50: Miss Hilda Boyle, soprano. 10.0: Dance music. Close down.

## 2UW

### MIDDAY SESSION.

12.30: Music. 1.0: G.P.O. clock and chimes. Music. 1.15: Talk on Homecraft, by "Padora." 1.30: Music. 2.30: Close down. Musical programme.

### EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes. Request numbers. 9.0: G.P.O. clock and chimes. Comments on foreign affairs, by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

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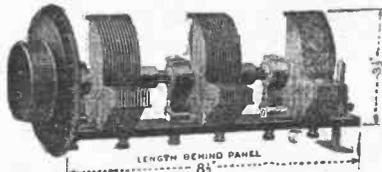
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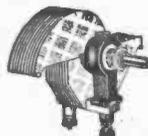
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6WF

12.30: Tune in. 12.35: Markets, news, etc. 1.0: Time signal. 1.1: Weather bulletin, supplied by the Meteorological Bureau of West Australia. 1.3: Musical programme, relayed from the Primrose Cafe de Luxe; vocal items from the studio. 2.0: Close down. 3.30: Tune in. 3.45: Musical programme from the studio, including pianoforte solos by Miss Audrey Dean; violin solos by Mr. Frank Romaine. 4.30: Close down. 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Station String Trio. 7.30: Commercial and general information. 7.45: Talk by Dr. J. S. Battye, B.A., LL.B. 8.0: Time Signal. 8.1: First Weather bulletin. 8.3: Concert by the Coolgardie Liedertafel, relayed from the Perth Town Hall. 8.50: Late news items, by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements; ships' arrival range announcement; late weather bulletin. 9.5: Programme continued from the Town Hall. 10.30: Close down.

104.5-METRE TRANSMISSION

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 8.45 p.m.

7ZL

MIDDAY SESSION

11.30 to 1.30: See Friday.

AFTERNOON SESSION

3.0: Chimes. 3.1: Selections. 3.4: Weather. 3.5: Selections. 4.15: An educational talk on "Inter-Empire Trade." 4.30: Close down.

EARLY EVENING SESSION

6.15: Selections. 6.30: Basil Sproule, will play the piano for the little ones—"Old Pal." "Valse." 7.0: Answers to letters and birthday greetings by Uncle David and The Storey Lady. 7.10: The Storey Lady will tell a story to the wee folk. 7.15: News session.

EVENING SESSION

7.30: Geo. Lewis, of the Hobart Savings Bank, will speak on "History of the Savings Bank." 7.45: W. E. Fuller will speak on "Literary Lapses and Library Lists." 8.0: Chimes. 8.15: A dance programme by the Ritz Band and Mlle. Columbia. Ritz Dance Band—Fox Trot "Blue Night" (Rollins), "Tell Me You're Sorry" (Davis), Waltz, "Mexican Serenade" (Terese). 8.24: Harry Dearth, bass—"Onaway, Awake, Beloved" (Cowen), "Leamin'" (Bendish). 8.31: Ritz Dance Band—"Don't Be Like That" (Gottler), Fox Trot, "Blue Baby" (Green), Yalt. "Fashionette" (Glogau). 8.40: Light Opera Co.—"Gems from Robin Hood" (Koyen). 8.47: Ritz Dance Band—Waltz, "Beloved" (Kahn), Yalt. "All By Yourself in the Moonlight," Fox Trot, "There's a Ridge Round My Heart." 8.56: Alfred O'Shea, tenor—"Little Town in Ould County Down" (Pascoe), "Mantasha" (Rowe). 9.3: Ritz Dance Band—"Cinnamon Cake" (Bernard), Fox Trot, "If You Don't Love Me" (Ager), Yalt. "You Can't Cry Over My Shoulder" (Heath). 9.12: Harry Lauder, baritone—"The Boss" (Lauder), "I Like My Old Home Town" (Lauder). 9.19: Ritz Dance Band—Waltz, "One Night of Love" (Pink), Fox Trots, "There Are Eyes" (Keyes), "One Hundred Years From Now." 9.28: Robert Radford, basso—"When That I Was a Tiny Boy" (Nicola). 9.31: Ritz Dance Band—Yalt. "Dancing Shadows" (Golden), Fox Trots, "That's Her Now" (Zellen). "Me and Jane in a Plane." 9.40: Rachel Morton, soprano—"Love Will Like a Wild Birding Fly." "Love and Music, These Have I Lived For." 9.48: News session. 10.0: Chimes. 10.1: Close down.

7ZL

MIDDAY SESSION

12.30 to 1.30: See Friday.

AFTERNOON SESSION

3.0: Chimes. 3.4: Weather. 3.15: An hour with Mlle. Columbia and Patti Pianola. 4.15: "Aunt Edna" will speak on "Fashioners for Evening Wear." 4.30: Close down.

EARLY EVENING SESSION

6.15: Music. 6.30: Meg Vinay will recite to the wee folk—"This Little Teddy Bear" and "Market Square." 7.0: Answers to letters and birthday greetings by "Uncle David." 7.15: News session.

EVENING SESSION

7.30: Geo. Collis will speak on "Physical Culture." 7.45: Under the auspices of the Tasmanian University, Rev. A. C. Nelson will speak on "Macleod, the Man and his Work" (continued). 8.0: G.P.O. clock chimes the hour. 8.6: Transmission from the Memorial Congregational Church, Brisbane St. 8.8: Concert programme arranged by James Marsh, organist—artists, Daisy Walters, Keith Semple, David Dolman, James Marsh, Memorial Choir. 9.48: News session. 10.0: Chimes. 10.1: Close down.

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WE 4



# Local Programmes, Wednesday, May 8

## 2FC

### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

7.0: "Big Ben" and announcements. 7.2: Official weather forecast; rainfall; river report; temperatures; astronomical memoranda. 7.7: "Sydney Morning Herald" summary. 7.12: Shipping intelligence; mail services. 7.15: Studio music. 7.25: Metal market; mining sharemarkets; investment quotations; wool sales; breadstuffs markets; Inter-State markets; produce markets. 7.40: Studio music. 8.0: "Big Ben"; close down.

### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.3: Pianoforte reproduction. 10.10: "Sydney Morning Herald" news service. 10.25: Studio music. 10.45: A talk on "Home Cooking and Recipes" by Miss Ruth Furst. 11.0: "Big Ben"; A.P.A. and Reuter's cable services. 11.5: Close down.

### MIDDAY SESSION.

Announcer: A. S. Cochrane.

Note.—Race results from Victoria Park. 12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Studio music. 12.10: Summary of news, "Sydney Morning Herald." 12.15: Rugby Wireless news. 12.18: A reading. 12.30: Studio music. 1.0: "Big Ben"; weather intelligence. 1.3: "Evening News"; midday news service; Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call.

### ATERNOON SESSION

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

Note.—Between 3 and 4 a relay from KGO will be taken.  
2.30: Programme announcements. 2.32: Recital of selected records. 3.0: "Big Ben"; popular music. 3.30: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 3.40: From the Studio, Natalie Beresford, soprano—(a) "The Woodpigeon" (Lehmann); (b) "The Yellowhammer" (Lehmann); (c) "The Wren" (Lehmann). 3.47: A reading. 4.10: Molly Dougherty, monologues—(a) "Leetle Mister Baggy Breches" (Darewski); (b) "Obsession" (Wallace). 4.17: Studio items. 4.20: Natalie Beresford, soprano—(a) "A Spirit Flower" (Clyton); (b) "Good Morning Brother Sunshine" (Lehmann). 4.32: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.42: From the Studio—Popular music. 4.45: Stock Exchange, third call. 4.47: Studio items. 4.50: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 5.0: "Big Ben"; close.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The Children's Session, conducted by the "Hello Mau" assisted by Uncle Ted and Sandy; letters and stories; music and entertainment. 5.30: Daley's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.45: Weather and shipping news. 6.48: Rugby Wireless news. 6.50: Late sporting news. 7.0: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Der Rosenkavalier Waltz" (Strauss); (b) "Moonlight in Rio" (Wertheimer); (c) "Chansonette" (Brian Hope); (d) "High Jinks" (Frimd); (e) "The Curtain Falls" (D'hardelot).

### EVENING SESSION.

Announcer: Laurence Halbert (Studio).

Announcer: A. S. Cochrane (Town Hall)

Accompanist: Ewart Chapple

7.40: Popular music.  
7.45: Programme announcements.  
7.48: Studio items.  
8.0: "Big Ben" from the Sydney Town Hall—Radio and Electrical Exhibition, 1929  
8.1: The Euterpians Female Choir, successful competitors in the recent Radio Eisteddfod—  
(a) "The Snow" (Elgar).  
(b) "Sound Sleep" (Williams).

8.10: Stanley Clarkson, basso—

(a) "O Night of Stars and Splendour" (Thompson).

(b) "Tally Ho" (Leon).

8.17: Connie Howard, violin solos.

8.24: Amy Ostinga, contralto—

(a) "May Day at Islington" (Oliver).

(b) "Saint Valentine" (Easthope Martin).

8.32: Frank Ryan, comedian—

"The Old Caretaker" (Newman).

8.40: The Smart Set Trio, instrumentalists—

(a) "Barcarolle" (Offenbach).

(b) "Lolita" (Stoneham).

8.47: Stanley Catlett, tenor—

(a) "Love Me" (Tosti).

(b) "Ribbon Song" (Lohr).

8.54: The Euterpians Female Choir, successful competitors in the recent Radio Eisteddfod—

(a) "Swannee River" (arr. Rlego).

(b) "You Stole My Love" (MacFarren).

9.0: From the Studio—"Big Ben"; weather report.

9.1: C. Price Conigrave—An Australian Travelogue, "Exploring in Kimberley."

9.16: Stanley Clarkson, basso—

(a) "Silent Noon" (Williams).

(b) "Shepherd, See Thy Horse's Foaming Mane" (Korbay).

9.23: Connie Howard, violiniste.

9.30: Amy Ostinga, contralto—

(a) "A Dream" (Cowan).

(b) "The Ships of Arcady" (Head).

9.37: The Smart Set Trio, instrumentalists—

(a) "Danny Boy" (Wetherley).

(b) "Serenade" (Toselli).

(c) "Rag Doll" (Brown).

9.47: Stanley Catlett, tenor—

(a) "Flower Song" (Carmen) (Bizet).

(b) "A Vucchella" (Tosti).

9.54: Frank Ryan, comedian.

10.4: Euterpians Female Choir—

(a) "To the Evening Star" (Bantock).

(b) "Spinning Chorus" (Wagner).

(c) "Stars of Summer Night" (West).

(d) "Waltz Song from Faust" (arr. Branscombe).

10.16: The Smart Set Trio—

(a) "My Black Birds are Blue Birds Now" (Campbell and Whiting).

(b) "Souvenirs" (Nichoels).

(c) "Little Blue Bird" (Smithson).

(d) "Old Man Sunshine" (Warren).

10.28: Late weather and to-morrow's programme.

10.30: National Anthem; close.

## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.

8.0: G.P.O. chimes. Weather report—State and metropolitan. 8.3: Studio music. 8.30: G.P.O. chimes. News and information service from "Daily Telegraph Pictorial." 9.0: G.P.O. chimes. Studio music. 9.30: G.P.O. chimes. Half an hour with silent friends. 10.0: G.P.O. chimes. Close.

### MIDDAY SESSION.

Announcer: A. C. C. Stevens.

11.0: G.P.O. chimes. 2BL Women's Sports Association session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield. 12.0: G.P.O. chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "Sun" midday news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital. 2.0: G.P.O. chimes. Close down.

Note.—Race results from Victoria Park will be broadcast, by courtesy of the "Sun" newspapers.

### ATERNOON SESSION.

Announcer: Basil Kirke (Studio).

Announcer: A. C. C. Stevens (Town Hall).

Accompanist: Kathleen Roe.

3.30: G.P.O. chimes. From the Sydney Town Hall, Radio and Electrical Exhibition, 1929. The Melody Trio, instrumentalists.

3.38: A. G. Ellis, baritone—(a) "If I Might Only Come to You" (Squire), (b) "O Flower of All the World" (Pfinden). 3.44: Anne

Luciano, soprano—(a) "Sunflakes" (Phillips). (b) "Here in the Quiet Hills" (Carne). 3.57: The Melody Trio, instrumentalists. 4.0: A. G. Ellis, baritone—(a) "You Along o Me" (Sanderson), (b) "What Am I, Love, Without Thee" (Adams). 4.7: The Melody Trio, instrumentalists. 4.15: Anne Luciano, soprano—(a) "Gossamer Wings" (Benyon), (b) "Early in the Morning" (Phillips). 4.22: The Melody Trio, instrumentalists. 4.30: From the studio, a talk by Basil Kirke. 4.45: Popular music. 5.0: G.P.O. chimes. "Sun" news service. 5.7: Studio items. 5.17: Pianoforte reproduction. 5.32: Resume of races from Victoria Park. 5.37: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcer: Basil Kirke.

5.40: Children's session, conducted by Uncle Bas. Music and entertainment. Letters and stories. 6.30: "Sun" news and late sporting news. 6.40: 2BL Dinner Quartette—(a) "Illusion Valse" (Michiels), (b) "By the Tamarisk" (Coates), (c) "H.M.S. Pinafore" (Sullivan), (d) "My Desire" (Wakfield-Cadman), (e) "My Wild Irish Rose" (Olcott). 7.7: Australian Mercantile Land and Finance Co.'s report. Weather report and forecast, by courtesy of Govt. Meteorologist. Producers' Distributing Society's fruit and vegetable market reports. Grain and fodder report ("Sun"). Dairy produce report ("Sun"). 7.25: Mr. Pam and Miss Pam in advertising talks, hand hints, and nonsense. 7.53: An ad. special. 7.55: Programme and other announcements.

### EVENING SESSION.

Announcer: Basil Kirke.

Accompanist: G. Vern Barnett.

7.58: Topical chorus.

8.0: G.P.O. chimes. From the Capitol Theatre, the Capitol Unit entertainment.

8.8: From the studio, the H. W. Varna Company will present "Aren't We All?" Cast in order of appearance:

The Hon. William Tatham. William Hunz.

Lady Pinton. Meg Service.

Kitty Lake. Felix Clark.

The Hon. Margot Tatham (Willie's wife). Jean Morice.

Lord Grenham. H. W. Varna.

The Rev. Ernest Lynton. H. J. Sailer.

Angela Lynton (his wife). Muriel Come.

John Willocks. Gordon Stilling.

Act I.—Room in Willie Tatham's house in Mayfair.

Act II.—Room at Grenham Court—Lord Grenham's house—two weeks later.

Act III.—The same—next morning.

9.8: Weather report.

9.9: Zilata Kalmikoff, cellist—

(a) "Romance, Op. 8" (Becker).

(b) "Liebesfreud" (Kreiser).

9.16: From the Capitol Theatre, stage presentation.

9.28: From the studio, Amy Firth, mezzo.

9.35: Zilata Kalmikoff, cellist—

"Kol Nidrel" (Bruch).

9.42: Claude Corbett will speak on "General Sporting."

9.59: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

10.9: From the studio, Harry Croot, popular items.

10.18: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

10.28: From the studio, late weather.

Harry Croot, popular items.

10.36: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

10.57: From the studio, to-morrow's programme.

10.59: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

11.30: National Anthem. Close.

## 2UW

### MIDDAY SESSION.

12.30: Music. 1.0: G.P.O. clock and chimes.

Musical programme. 1.15: Talk on Homecraft, by "Pandora." 1.30: Music. 2.30: Close down. 4.30: Musical programme.

### EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 6.30: Close down. 7.0: G.P.O. clock and chimes. Request numbers. 8.0: G.P.O. clock and chimes. Comments on foreign affairs, by Mr. J. M. Prentice. 9.10: Music and request numbers. 10.30: Close down.

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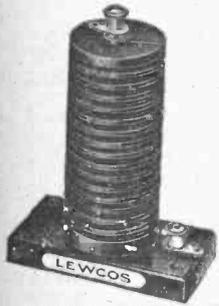


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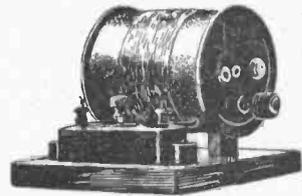
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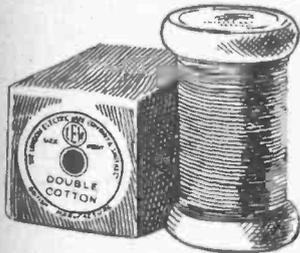
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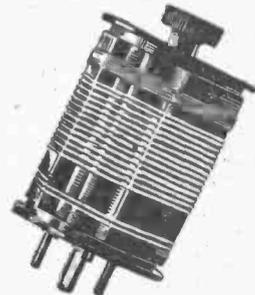
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# Local Programmes, Thursday, May 9

## 2FC

### EARLY MORNING SESSION.

Announcer: A. S. Cochrane.

7.0: "Big Ben" and announcements. 7.2: Official weather forecast; rainfall; river report; temperatures; astronomical memoranda. 7.7: Sydney Morning Herald summary. 7.12: Shipping intelligence; mail services. 7.15: Studio music. 7.25: Investment market; mining sharemarkets; metal quotations; wool sales; breadstuffs markets; interstate markets; produce markets. 7.40: Studio music. 8.0: "Big Ben"; close down.

### MORNING SESSION.

Announcer: A. S. Cochrane.

10.0: "Big Ben" and announcements. 10.2: Pianoforte reproduction. 10.10: Sydney Morning Herald news service. 10.25: Studio music. 10.30: Last minute sporting information by the 2FC Racing Commissioner. 10.40: Studio music. 11.0: "Big Ben". A.P.A. and Reuter's cable services. 11.5: Close down.

### MIDDAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast, rainfall. 12.5: Studio music. 12.10: Summary of news, Sydney Morning Herald. 12.15: Rugby wireless news. 12.18: A reading. 12.30: Studio music. 1.0: "Big Ben." Weather intelligence. 1.3: "Evening News" midday news service. Producers' Distributing Society's report. 1.20: Studio music. 1.28: Stock Exchange, second call. 1.30: Popular studio music. 1.50: Last minute sporting information by the 2FC Racing Commissioner. 2.0: "Big Ben." Close.

### AFTERNOON SESSION.

Announcers: Ewart Chapple (Studio).

Laurence Halbert (Town Hall).

Accompanist: Kathleen Roe.

2.30: Programme announcements. 2.32: The Book Lover's Corner. 3.0: "Big Ben." Popular music. 3.15: Dorothy A. Nall will speak on "Reminiscences of European Life in India." 3.30: "Big Ben." From the Sydney Town Hall: Radio and Electrical Exhibition. 1929. The Popular Trio, instrumentalists. 3.45: Daniel Hardy, baritone. 3.52: The Popular Trio, instrumentalists. 4.2: Marjorie Pritchard, one of the youngest artists on the air in actual years, but she has been broadcasting for a long time. Ask the 2BL children; they'll tell you. 4.9: Daniel Hardy. 4.16: The Popular Trio, instrumentalists. 4.23: Marjorie Pritchard, popular vocalist. 4.30: From the Studio: Popular music. 4.45: Stock Exchange, third call. 4.47: Studio items. 5.0: "Big Ben." Close.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.40: The chimes of 2FC. 5.45: The Children's Session, conducted by the "Hello Man." Letters and stories. Music and entertainment. Mary Wilson, a successful competitor in the recent Radio Elstedsford—(a) "Break o' Day" (Sanderson), (b) "Golden Flames the Wattle Bloom" (Harry), (c) "No One Ever Marries Me" (Lehmann). 6.30: Daley's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: 6.43: Stock Exchange information. 6.45: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.45: Weather; shipping news. 6.48: Rugby Wireless news. 6.50: Late sporting news. 7.0: "Big Ben." Late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Marche Militaire" (Schubert), (b) "The Golden Moth" (Novello), (c) "Le Extase" (Thome), (d) "The Island King" (Garston), (e) "Humoreske" (Dvorak).

### EVENING SESSION.

Announcer: Laurence Halbert

Accompanist: Ewart Chapple

7.40: Popular music.

7.45: Programme announcements.

7.48: Studio items.

8.0: G.P.O. chimes.

From the Victory Theatre, Kogarah—

The Victory Theatre Orchestra, conducted by Fred Mitchell.

8.20: From the Studio—

John Mitchell, tenor.

8.27: Result of last week's competition.

8.29: Dagmar Roberts, pianist—

"Six waltzes" (Brahms).

8.39: Gwen Sherwood, in a sketch.

8.46: Ambrose Bourke, baritone.

8.53: Mischa Dobrinski, violinist.

9.0: "Big Ben." John Mitchell, tenor.

9.7: Dagmar Roberts, pianist—

(a) "Three Fours" (Coleridge-Taylor).

(b) "Gopak" (Moussorgsky).

(c) "Hungarian Air" (Traditional).

(d) "Polichinelle" (Rachmaninoff).

9.15: Gwen Sherwood, in a sketch.

9.23: Ambrose Bourke, baritone.

9.30: Mischa Dobrinski, violinist.

9.37: From the Victory Theatre, Kogarah:—

The Victory Theatre Orchestra, conducted by Fred Mitchell.

9.57: From the Studio:—

Margaret Grimshaw, popular vocalist.

10.4: From the Hotel Australia:—

Cec Morrison's Dance Band.

10.19: From the Studio—

Margaret Grimshaw, popular vocalist.

10.26: Late weather.

10.28: From the Hotel Australia:—

Cec Morrison's Dance Band.

10.57: To-morrow's programme.

10.59: From the Hotel Australia:—

Cec Morrison's Dance Band.

11.30: National Anthem. Close.

## 2BL

### MORNING SESSION.

Announcer: A. C. Stevens.

8.0: G.P.O. chimes. Weather report—State and metropolitan. 8.3: Studio music. 8.30: G.P.O. chimes. News and information service from "Daily Telegraph Pictorial." 9.0: G.P.O. chimes. Studio music. 9.30: G.P.O. chimes. Half an hour with silent friends. 10.0: G.P.O. chimes. Close.

### MIDDAY SESSION.

Announcer: A. C. Stevens.

11.0: G.P.O. chimes. 2BL Women's Sports Association session, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield. 12.0: G.P.O. chimes. Special ocean forecast and weather report. 12.3: Studio music. 12.30: Shipping and mails. 12.35: Market reports. 12.45: "Sun" midday news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital. 2.0: G.P.O. chimes. Close down.

### AFTERNOON SESSION.

Announcer: A. C. Stevens.

Accompanist: Kathleen Roe.

3.45: G.P.O. chimes. Popular music. 3.50: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.0: G.P.O. chimes. B. A. M'Michan will speak on General Diseases in Dogs. 4.15: Winifred Campbell, soprano—(a) "Little Lady of the Moon" (Coates), (b) "Trees" (Hahn). 4.22: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.32: Popular music. 4.42: Winifred Campbell, soprano—(a) "Heart's Desire" (Fraser-Simpson), (b) "My Desire" (Cadman). 4.50: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 5.0: G.P.O. chimes. From the Studio: Pianoforte reproduction. 5.15: Studio items. 5.37: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcer: Basil Kirke.

5.40: Children's Session, conducted by Uncle Bas. Music and entertainment. Letters and stories. 6.30: "Sun" news and late sporting. 6.40: 2BL Dinner Quartette—(a) "Marche Tzigane" (Lacombe), (b) "Kisses in the Dark" (Micheli), (c) "Love in Arcady" (Woods), (d) "Iolanthe" (Sullivan), (e) "Lotus Blossom" (Ohlsen). 7.7: Australian Mercantile Land and Finance Co.'s report. Weather report and forecast, by courtesy of Government Meteorologist. Producers' Distributing Society's fruit and vegetable market report. Grain and fodder report ("Sun"). Dairy produce report ("Sun"). Weekly traffic bulletin. 7.25: Mr. Pim and Miss Pam in advertising talks, handy hints, and nonsense. 7.53: An Ad. Special. 7.55: Programme and other announcements.

### EVENING SESSION.

Announcer: A. C. Stevens

Accompanist: Horace Keats

8.0: G.P.O. chimes. 2BL Topical Chorus. 8.2: From the Town Hall: Radio and Electrical Exhibition, 19.29. The Metropolitan Band, conducted by John

Palmer—

Selection, "Beauties of Wagner" (arr. Newton).

8.16: David Craven, baritone—

(a) "If Ever I Meet the Sergeant" (Sarderson).

(b) "Sonny Boy" (Jolson).

8.24: Bertie Wright, the well-known comedian—

(a) "Wheel Him In" (Batch and Langtry).

(b) "Dear Matilda" (Damerell and Hargreaves).

8.34: Arthur Prince, the Prince of Banjoists—

(a) "There's a Rainbow Round My Shoulder" (Jolson).

(b) "Popular Medley."

8.40: "The Crescendo" Vocal Trio—

Agnes MacDiarmid, soprano.

Eva Newbury, mezzo.

Peggy Dunbar, contralto—

Trio: "The Oars are Flushing."

Duet, soprano and contralto, "I Love You Truly" (Bond).

Trio, "Bird in Hand."

8.48: The Metropolitan Band, conducted by John Palmer—

Fantasia, "British Songs" (arr. Romd).

9.0: From the Studio: G.P.O. chimes. Weather report.

9.1: David Craven, baritone—

(a) "I am Fate" (Hamblen).

(b) "Come to Me Then" (Sauer).

9.8: Arthur Prince, and his banjo—

(a) "Down South" (Ossman).

(b) "Popular Song Medley."

9.16: "The Crescendo" Vocal Trio.

9.28: The Metropolitan Band, conducted by John Palmer—

Waltz, "Les Fleo RS D'Australe" (Laski).

9.41: Bertie Wright, Comedian—

(a) "What Makes the Ladies Follow Me—Everywhere?" (Wallace).

(b) "Mother Loves Me" (Stanley and Allyn).

9.51: The Metropolitan Band, conducted by John Palmer—

(a) March, "Hurrah Boys" (Lacalle).

(b) Song Melody, "As You Pass By" (Rusnell).

(c) March, "Colonel Bogey" (Alford).

10.6: The Crescendo Trio.

10.16: Late "Sun" news service.

10.26: Late weather report.

10.27: To-morrow's programme.

10.30: National Anthem. Close.

## 2GB

10.0: Music. 10.10: Happiness talk, by A. I. Bennett. 10.20: Music. 10.30: Women's Session, by Miss Helen J. Beegling. 11.30: Close down. 2.0: Music. 2.5: Women's Radio Service, by Mrs. Dorothy Jordan. 2.50: Music. 3.15: Close down. 5.30: Children's session, by Uncle George. 7.0: Music. 7.30: Short talk by Mrs. Jordan. 8.0: Miss Gwladys Edwards soprano. 8.7: Mr. Leonard Brewer, violinist. 8.15: Mr. Clement Q. Williams, baritone. 8.22: Madame Betts-Vincent, in an illustrated talk, "The making of music." 8.37: Instrumental music. 8.45: Humorous interlude by Mr. Jack Winn and Mr. Heath Burdock. 8.50: Madame Bennett North, contralto. 9.0: Weather report. 9.3: Address. 9.15: Instrumental music. 9.25: Miss Gwladys Edwards soprano. 9.35: Humorous interlude by Mr. Jack Winn and Mr. Heath Burdock. 9.40: Mr. Leonard Brewer, violinist. 9.50: Mr. Clement Q. Williams, baritone. 10.0: Madame Bennett North, contralto. 10.10: Dance music. 10.30: Close down.

## 2UW

### MIDDAY SESSION.

12.30: Music. 1.0: G.P.O. clock and chimes. Music. 1.15: Talk on Homecraft, by "Pandora." 1.30: Music. 2.30: Close down. 4.30: Musical programme.

### EVENING SESSION.

5.30: Children's Hour, conducted by Uncle Jack. 5.30: Close down. 7.0: G.P.O. clock and chimes. Request numbers. 8.15: Garden talk, by Mr. S. H. Hunt. 8.30: Music. 9.0: G.P.O. clock and chimes. Comments on foreign affairs, by Mr. J. M. Prentice. 8.15: Music and request numbers. 10.30: Close down.

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Simple Chart Free with parts. **£2'8'6**  
Boys All Parts and Valve.

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12 Months Each Year.  
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THE GREATEST WIRELESS SHOW ON EARTH.  
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"Captain T.—I have not seen anything to equal your store up to date. International Traveller.—Yours is the greatest Radio store in the universe."  
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**WE HAVE NO TIME FOR ANY OTHER RADIO EXHIBITION BUT OUR OWN**  
The days are far too short to keep pace with our—growing by leaps and bounds—business.  
**FOLLOW THE CROWDS TO LEVENSON'S, THE BUSIEST STORE IN TOWN.**

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The Largest Wireless Goods Distributors in the Commonwealth.

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**WE DO THE LARGEST RADIO MAIL ORDER BUSINESS IN AUSTRALIA.**  
MAIL YOUR ORDER TO-DAY.  
Same Day Service, Satisfaction Assured, Please Add Freight.

# Interstate Programmes, Thursday, May 9

## 3LO

### EARLY MORNING SESSION.

7.15 to 8.15: See Friday Session.

11.0: To-day's radio recipe: Ginger nuts. 11.5: Matron Morel-ud will speak on "Mothercraft." 11.25: Captain Donald MacLean will speak on "Famous Women of History." 11.45: Miss Ertle will speak on "Modern Handicrafts—Useful and Ornamental Articles from Sealing Wax and Crepe Paper."

MID-DAY SESSION.

12.0: Melbourne Observer (Radio signal; express train information. 12.1: British official wireless news from Rugby; Reuter's and the Australian Press Association's cables; "Argus" news service. 12.15: Newmarket stock sales; cattle sales report, bullocks and calves, by the Associated Stock and Station Agents, Bourke Street, Melbourne. 12.20: Community singing, transmitted from the Kings Theatre, Russell Street, Melbourne; old-time choruses, conducted by Frank Hatherley. 12.40: Stock Exchange information. 12.45: Community singing resumed. 1.55: Meteorological information: weather forecast for Victoria, New South Wales, South Australia, and Tasmania. 2.5: Close down.

AFTERNOON SESSION.

2.15: General programme, including: The Station Orchestra: Moran Hilford, bass; Ettie Cole, contralto; Dorothy Roxburgh, violon. 3.0: Dr. Loftus Hills will speak. 3.15: Fritz Hertz will speak to students of music. 3.30: Rev. Wm. Bottomley will continue his series of talks on "Sicard the Volungar," by William Morris. 3.45: The Station Orchestra. 3.55: Moran Hilford, bass. 4.2: The Movement, piano. 4.32: News service: Stock Exchange information. During the afternoon results of the Coleraine races will be given as follows: 4.2: The Movement, piano. 4.32: News service: Stock Exchange information. During the afternoon results of the Coleraine races will be given as follows: 4.2: The Movement, piano. 4.32: News service: Stock Exchange information.

EARLY EVENING SESSION.

6.0: Answers to letters and birthday greetings by "Bobby Bluegum." 6.15: "Bobby Bluegum" will tell you about something exciting with the help of "Ector and Orance."

EVENING SESSION.

7.5: Stock Exchange information. 7.15: Market reports. 7.30: News section. 7.43: Birthday greetings. 7.45: Out of the past. 7.48: A dressing-room talk. 8.0: A musical history. 8.1: Rod McGreor will speak on "Football."

NIGHT SESSION.

8.15: The Radio Revelers. "Ya Comin' up To-night, Huh" (Lewis). "Forty-seven Ginger-headed Sullors" (Garony). "High Tension" (Hilford).

8.34: Dolly Burdett, contralto—"Always" (Irving Berlin). "The Radio Revelers—"A Bungalow, Radio, and You" (Dempey). "Back in Your Own Backyard" (Joison). "My Heart Stood Still" (Rodgers).

8.36: Jack Hocking, baritone—"Mother, She Still Hates You" (Joison). 8.39: The Radio Revelers—"Give Your Baby Lots of Lovin'" (Burke). "When You Know Me" (Lavin). "I'm Sorry, Sally" (Kahn). 8.48: Thelma Ready, banjo—"Where Heaven Is" (O'Hara).

8.51: The Radio Revelers—"My Blackbirds are Bluebirds Now" (Friend). "Casablanca" (Evans). "Oh, Isabel" (Schuster). 9.0: Dorothy Stepp, entertainer—"Gotta Be Good to Baby."

9.3: The Radio Revelers—"Sweet Forgiveness" (Lorenzo). "Pensies" (Nichols). "You Ought to Hear Oll' Laugh" (Baer). 9.12: Dolly Burdett, contralto—"Adorable" (Wynburn).

9.15: The Radio Revelers—"In My Bouquet of Memories" (Lewis). "Mexican Serenade" (Tereso). "Down by the Old Front Gate" (Kassal). 9.24: Jack Hocking, baritone—"Are You Lonesome To-night?" "The Radio Revelers—"I Don't Know Why I Do It" (Wal). "Hum and Strum" (Meyers). "Maybe I'm Wrong" (Harris).

9.36: Thelma Ready, banjo—"Sonny Boy." 9.39: The Radio Revelers—"Constantin" (Carlton). "My Angelina" (Wayne). "There's a Rainbow Round my Shoulder" (Joison).

9.48: Dorothy Stepp, entertainer—"Back in Your Own Backyard." 9.51: The Radio Revelers—"Mississippi Mud" (Harris). "Oh, is She Mad at Me" (Friend). "High Upon a Hilltop" (Baer).

10.0: News service, meteorological information; British official wireless news from Rugby; announcements. 10.15: The Radio Revelers—"When Love Comes Stealing" (Rapee). "Roll up the Carpets" (Nixon). "To-day, To-morrow, for Ever" (Nichols). 10.34: Dolly Burdett, contralto, and Hugh Huxford, tenor—"At the End of an Irish Moonbeam."

10.7: The Radio Revelers—"Who Knows" (Dixon). "Lady of the Morning" (Burton). "I'm Crazy Over You" (Lewis). 10.36: Jack Hocking, baritone—"Daddy, What's the Deal?" 10.39: The Radio Revelers—"Old Man Sunshine" (Dixon). "Wipe the Pan" (Baer).

"My Dream Sweetheart" (Hall). 10.48: Thelma Ready, banjo—"My Curly Headed Baby" (Clutsum). 10.51: The Radio Revelers—"Guess Who's in Town" (Bazell). "The Stolen Melody" (Fisher). "Lenora" (Gilbert). 11.1: The Radio Revelers—"Japanese Mammy" (Donaldson). "There's a Ricketty Shack" (Turk). "That's What You Mean to Me" (Davis). "All by Yourself in the Moonlight" (Walls). "She's Got a Great Big Army of Friends" (Neilson). "Querida" (Simon). "Falling in Love With You" (Mayne). "I Love to Love a Hunk of Spongescake" (Castell). "Just Jog Along" (Rose). "The Voice of the Southland" (Austin). 11.30: God Save the King.

## 3AR

MORNING SESSION.

10 to 10.59: See Friday Session.

MORNING MUSICAL SESSION.

11.0: A classical concert by The Discus Ensemble, Felix Weingartner and the Royal Philharmonic Orchestra, recorded in the Scala Theatre, London—"Symphony No. 7 Op. 92" (Beethoven). 11.40: Ballads. 12.20: British official wireless news. Announcements.

EVENING SESSION.

3.0: Ballads. 4.0: The Imperial Russian Trio. 4.30: Close down.

6.0: Ballads. 6.15: The Discus Ensemble, Felix Weingartner and the Royal Philharmonic Orchestra—"Symphony No. 8 in F Op. 93" (Beethoven), in six parts. 7.40: News service. Announcements. 7.20: Delightful ditties.

NIGHT SESSION.

Announcer: John Stuart. Accompanist: Reg. Browne. 8.0: Dr. Loftus Hills, "Life's Facts and Fancies." 8.15: Under the auspices of the Nursesmen and Seafarers' Association, W. R. Warner will speak on "Deciduous Shrubs." 8.30: The Station Orchestra—"Alphons and Estrella" (Schubert). "Congo Triste" (Comte). 8.40: Mary Hotham, mezzo—"Memnon" (Schubert). "Shadows" (Schubert).

8.47: The Imperial Russian Trio (Arved Nord, violin; Ivan Beninsky, cello; Vassil Hister, piano). "Trio in A Minor" (Tschalkowsky). Thema con variazione. Finals variazione. 9.17: Transmission from Cairns Memorial Church. Concert by the church choir. 9.47: The Station Orchestra—"Musical Gems" (Tschalkowsky). 9.57: Captain Donald MacLean, "Feats of the Mighty." 10.12: Mary Hotham, mezzo: "Le Nil" (Xavier Leroux). 10.15: The Station Orchestra—"Suite of Four" (Frini). 10.24: "Age" news service, exclusive to 3AR. Announcements. "God Save the King."

## 4QG

EARLY MORNING SESSION.

7.43 to 8.30: See Friday.

MORNING SESSION.

11.0: Social news. 11.15: Gardening talk, by "Tecoma." 12.0 noon: Close down.

MIDDAY SESSION.

1.0: Market reports and other information. 1.16: A lunch-hour. 1.40: Close down.

AFTERNOON SESSION.

3.6: A programme of records. 3.36: Mail train running times. 4.30: Afternoon news; close down.

EARLY EVENING SESSION.

6.0: Mail train running times; mail information; shipping news. 6.5: Wurlitzer Organ. 8.25: Commercial announcements. 8.30: Bedtime stories, conducted by "The Sandman." 7.0: News in brief. 7.5 Stock Exchange news, etc. 7.45: Lecturette, "On the Wallaby," by Mr. J. P. F. Reid, editor, "Queensland and Agricultural Journal."

NIGHT SESSION.

(Announcer: A. V. James.) 8.0: Studio Instrumental Quartette—"King Midas" (Romberg). 8.7: The Silkstone Apollo Club conductor, T. Westwood, "To Arms" (de Rille). Chorus. 8.11: Vera Parker, contralto—"When You Come Home" (Squire). 8.15: Erica Stuart, pianiste—"Waltz Caprice" (Rubinstein). 8.19: The Silkstone Apollo Club—"Anvil Song" (Adam). 8.24: Studio Instrumental Quartette—"Serenade" (Widor). 8.29: Annie Adams, soprano—"Beat of a Passionate Heart" (Phillips). 8.34: T. Westwood, baritone—"The Incessant Storm" (Schubardt). (Accompanied by the Silkstone Apollo Club). 8.40: D. Owens, elocutionist—Selected.

8.45: Vera Parker, contralto—"Sincerity" (Clarke). 8.50: The Silkstone Apollo Club—Chorus, "Faded Grove" (Hughes). 8.54: Erica Stuart, pianiste—"The Angels Have Changed My Name" (Cole-Ridge-Taylor). "My Lord Delivered Daniel." 9.0: Metropolitan weather forecast. 9.1: Week-end road information for motorists, officially supplied by the Royal Automobile Club of Queensland.

9.10: Studio Instrumental Quartette—"Character Study" (Krislan). 9.15: The Silkstone Apollo Club—"The Derbyshire Ram" (Dr. Colclough). 9.20: Annie Adams, soprano—"Big Lady Moon" (Carridge-Taylor). 9.25: Vio. Morris, bass—Selected. 9.28: The Silkstone Instrumental Trio—Miss O. Woolley and Messrs. A and G. Laid. Selected items. 9.38: The Royal Male Quartette—"Song of the Dove" (Aylward). 9.38: The Silkstone Apollo Club—"Rolling Down to Rio" (German). 8.42: Alex Laurie, violinist—Selected. 9.47: Studio Instrumental Quartette—"March, 'The Periscope'" (Allen). 9.51: T. Westwood, baritone—"The March of the Gasman Men" (composed by the Silkstone Apollo Club). 9.55: The Silkstone Apollo Club—Chorus: "Martyrs of the Arena" (de Rille). 10.0: News; weather; close down.

## 5CL

MORNING SESSION.

11.0: Chimes. 11.1: Morning melodies, 12. Kitchen craft and menu talk. 11.45: An Italian short story, "Dick's Luck." 12.15: General news service, British official wireless news. 1.0: Railway information. Stock Exchange information. Meteorological information. 1.1: Lunch hour news. 1.59: Meteorological information. 2.0: Close down.

AFTERNOON SESSION.

3.0: Chimes, general, including: Bess Quartette; Rev. C. H. Nield, in a cheer-up; Dorothy Belcher, soprano; Jack Stocks, the young Harold Tideman, baritone; Dorothy Swainston, mezzo. A violin recital, by Max Helms. 6.0: Stock Exchange information. 6.0: Close down.

EVENING SESSION.

6.0: Chimes. 6.15: Birthday greetings, commercial songs, and stories, by "The Walk Lark." 6.30: Miss Bessie Frances, will give some 3.0: Chimes, general, including: Bess Quartette; Rev. C. H. Nield, in a cheer-up; Dorothy Belcher, soprano; Jack Stocks, the young Harold Tideman, baritone; Dorothy Swainston, mezzo. A violin recital, by Max Helms. 6.0: Stock Exchange information. 6.0: Close down.

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"Querida" (Simon).  
 "Falling in Love With You" (Mayne).  
 "I Love to Dunk a Hunk of Spongecake" (Cassidy).  
 "I Just Jog Along" (Rose).  
 "The Voice of the Southland" (Austin).  
 11.0: God Save the King.

**6WF**

12.30: Tune in. 12.35: Markets, news, etc.; racing anticipations. 1.0: Time signal. 1.1: Weather notes, supplied by the Meteorological Bureau of West Australia. 1.3: Panatross hour, relayed from Lyric House, Perth. 2.0: Close down. 3.30: Tune in. 3.35: Music from the Carlton Cafe; vocal items from the studio. 4.30: Close down. 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.0: Trios and solos by the Station String Trio. 7.30: Commercial and general information. 7.45: Talk by Mr. Fred Alexander, M.A., "Current Events in World Politics." 8.0: Time signal. 8.1: First weather bulletin. 8.3: Orchestral night—concert by 6WF's Station Orchestra, conducted by Mr. W. Wilkins; Miss Audrey Dean, pianist. 8.50: Late news items, by courtesy of "The Daily News" Newspaper Co., Ltd.; station announcements; ships with-in range announcement; late weather bulletin. 9.5: Programme continued from the studio. 9.45: "Health" talk by Mr. E. Hatton. 10.30: Close down.

**104.5-METRE TRANSMISSION**

Simultaneous broadcast on 104.5 metres of programme given on 1250 metres, commencing at 6.45 p.m.

**7ZL**

**MIDDAY SESSION**

11.30 to 1.30: See Friday.

**AFTERNOON SESSION**

3.0: Chimes. 3.1: Musical selections. 3.4: Weather. 3.5: Musical selections. 4.15: A representative of the Child Welfare Association will speak on "Early Feeding." 4.30: Close down.

**EARLY EVENING SESSION**

6.15: Musical selections. 6.30: "The Storey Lady" will tell a story to the wee folk. 6.45: Betty Braithwaite, will play the piano for the wee folk—"Jack Tye" (Dunhill), "One Alone" (Romberg). 7.0: Answers to letters and birthday greetings by Uncle David and "The Storey Lady." 7.5: Musical selections. 7.15: News session.

**EVENING SESSION**

7.30: L. Norman will speak under the auspices of the "Come to Tasmania." 7.45 H. H. Cummins, president of the Rotary Club, will speak on "Empire Shopping." 8.0: Chimes. 8.6: Musical selections. 8.15: 7ZL's old-time dance night. Alla Polacca Orchestra and Mile. Columbia. 8.15: Alla Polacca Orchestra—Waltz, "Blue Danube" (Strauss). John Harrison, baritone—"Annie Laurie" (Old Scotch). Alla Polacca Orchestra, barn dance—"Horsey." The Gresham Singers—"After Many a Dusty Mile" (Algar). Alla Polacca Orchestra, Lancers—"Song of the Soldier" (Ganz). Gresham Singers, "Good Night, Beloved" (Hatton). Alla Polacca Orchestra, Valetta—"Masquerade" (Kessler). Robert Radford, basso—"Rocked in the Cradle of the Deep." Alla Polacca Orchestra. Schottische—"Honey Bees" (Richmond). John M'Coormack, tenor—"Good-bye, Sweetheart Good-bye" (Hatton). Alla Polacca Orchestra, Quadrills—selected. John M'Coormack, tenor—"Within a Garden of My Heart" (Scott). Alla Polacca Orchestra, waltz—"Honeymoon Waltz." Alma Gluck, soprano—"Song of the Chimes" (Worell). Alla Polacca Orchestra, Two Step—"Denham" (Conway). Kirby Lunn, contralto—"Boat Song" (Standford). Alla Polacca Orchestra, Schottische—selected. E. Williams, tenor—"Mother, My Dear" (Treharne). Alla Polacca Orchestra, Waltz—"Merry Widow" (Lehar). John M'Coormack, tenor—"Take Oh Take Those Lips Away" (Bennett). Alla Polacca Orchestra, Polka—"Dixie" (Rolf). Elsie Baker, contralto—"Old Folks At Home" (Foster). Alla Polacca Orchestra—"Varsoviens." 10.0: Chimes. 10.1: News session. 10.15: Close down.

**7ZL**

**Wednesday, May 8**

**AFTERNOON SESSION**

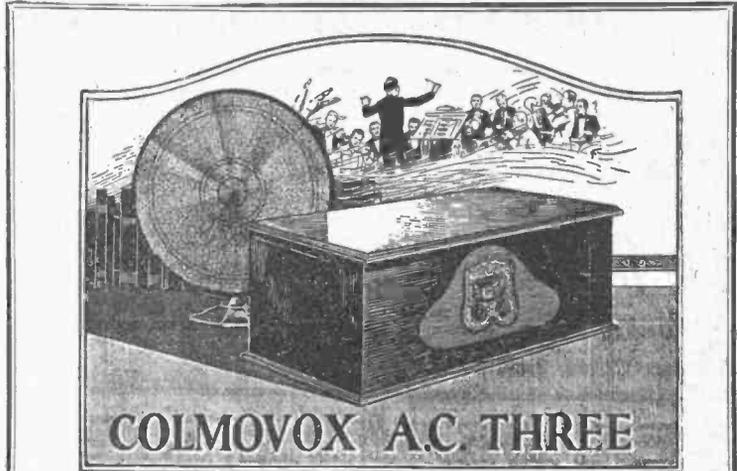
3.0: Chimes. 3.4: Weather. 3.10: Description of City Handicap, 1 mile 2 furlongs, Geelong, Vic. 3.45: Description of Flying Handicap, 6 furlongs, Geelong, Victoria. 4.15: Description of Bellebarine Welter, 7 furlongs, Geelong, Victoria. 4.20: Readings from the "Illustrated Mail." 4.30: Close down. 4.45: Description of Jumper's Plat Race, 1 mile 2 furlongs 152 yards, Geelong, Victoria. 4.50: All sporting results to hand. 5.0: Close down.

**EARLY EVENING SESSION**

6.15: Transmission from the Beaumaris Zoo, Hobart. The parrots will speak. 6.30: Bertha Southey Brammhall will tell a Tasmanian Fairy Tale to the wee folk—"The Sea Horse's Daughter." Part 2. 6.40: Thora Mather will recite to the little ones—"Prince Tatters," "Broken Wings." 7.0: Answers to letters and birthday greetings. 7.5: Rt. Rev. Dr. Snowden-Hay, Bishop of Tasmania. 7.20: News session.

**EVENING SESSION**

7.30: Geo. Nation will speak on "Gardening." 7.45: Miss M. D. Wilson, Instructress of Dressmaking, will speak on—"Dress Cutting and Designing." 8.0: G.P.O. Clock Chimes the hour. 8.6: Recital of instrumental and vocal items by leading international artists, specially arranged by Paton's Music Warehouse. 9.45: News session. 10.0: Chimes. 10.1: Close down.



**"COLMOVOK" RECEIVERS**

Practically the oldest Receiver manufacturers in New South Wales! "Colmovox" Receivers have stood the test of time and are still in demand from those who buy recommended goods. "Colmovox" Receivers are guaranteed for twelve months, and are built to suit Australian conditions, being selective to a high degree, giving good faithful reproduction, and they are moderately priced.

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	Cash Price.	Deposit.	Weekly.
	£ s. d.	£ s. d.	£ s. d.
"Colmovox" All-Electric Three .....	29 0 0	5 0 0	9 8
"Colmovox" All-Electric Five .....	48 10 0	11 0 0	15 11
"Colmovox" Three-valve Receiver .....	17 10 0	3 0 0	6 2
"Colmovox" Four-valve Receiver .....	28 0 0	4 0 0	9 8
"Colmovox" Five-valve Receiver .....	33 10 0	6 0 0	11 8
"Colmovox" One-valve Receiver .....	5 10 0	0 10 0	5 0
"Colmovox" Crystal Receiver .....	3 10 0	0 7 0	3 6

**ALL SETS ARE COMPLETE WITH LOUD SPEAKER, BATTERIES, ETC., AND INSTALLED FREE OF CHARGE**

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**Colville-Moore Wireless Supplies Ltd.,**

10 ROWE STREET (Next Hotel Australia) SYDNEY  
 'Phone B2261 'Phone B2261

# The WIRELESS WEEKLY

# RADIO INFORMATION

Under the direction of

Ray Allsop

and

Don B. Knock,

Associate Technical Editors

Correspondence Answered

only through

these

Columns

(See Coupon Below)



**A.D. (Cabarita).**—On three-inch former wind 45 turns 24 gauge D.C.C. Space 1/4 in. and wind primary 20 turns. Wind reaction coil on 2-inch former, 40 turns 30 gauge wire. Circuit requested appears in these columns.

**S.T.J.C. (Alpha).**—Reverse connections to condenser.

**C.W.H. (Randwick).**—Faulty carborundum crystal or reversed crystal.

**G.S. (Burwood).**—Open filament or grid circuit. Set not neutralised.

**M.F. (Wentworthville).**—Cannot tell you whether this control is for volume unless you let me know where it is connected to.

**GENERAL.**—For the sake of those readers who have not seen my previous remarks I desire to advise that in accordance with many requests, and in an effort to clear up all queries on hand (nearly 2000), only brief replies will be given. We hope to clear up this big batch of queries within a few weeks, when questions and answers will be again.

**E.C.D. (Sandgate).**—Thanks O.M.; will use your letter in queries when I have more room to spare.

**J.T.R. (Victoria).**—Resistance does vary with varying voltage readings in proportion to the voltage. For instance, a two ohm reed would make a difference to a reading when the input is one volt. If the voltage is raised to 100 the resistance is practically nullified. Re eliminator, no. Thanks for notes. Will reply.

**C.D.P. (Summer Hill).**—Wind 70 turns, and tap every tenth turn.

**L.S.L. (Lithgow).**—Sorry, no data at present. Connect aerial and earth to primary of detector stage. May be necessary to reverse re-action leads for best results. Re earth, quite usual.

**A.B. (No Address).**—Have only half of your letter re aerial. Use 2-inch rings. Should be 70 feet overall. No lead-in should be cage type, also on smaller wooden rings. Re rheostats. Old type. Re neutralisation, you will experience difficulty in tuning Inter-State stations if you are able to receive them at all.

**W.L.S. (Sydney).**—Re variable resistance, O.K. An Ideal Portable, try various fixed condensers in series, and in parallel with the variable condenser, and in series with the aerial.

**B. and C. (Brisbane).**—Don't! Your best plan would be to use ear phones and a "C" battery. Only a few parts of a radio circuit carry high enough current to be measured on the millimeter you mention. Meter is too small for other purpose mentioned. Place in series with plate lead of valve. Another way is to place it in between the "A" battery and "B" battery.

**T.S.O.C. (Glebe Point).**—Must be formed first. Use distilled water. Test polarity with a piece of Litmus paper.

**S.S. (Ashfield).**—Wish you'd abbreviate your letters stick to Marco. Short in set would cause trouble re valve. Trouble may also be in battery cable.

**C.R.B. (Newcastle).**—Coils of old type, and made to suit probably a .001 variable condenser. Remove one-third to half turns. You do not mention circuit or give diagram. Be secondary of about 47 turns. Try reversing re-action connections. Hand capacity may be caused through reversed condenser connections.

**F.L. (Toowong).**—Thanks for information. Will use in these columns when I have a little more space.

**W.G.W. (Campsie).**—Three stage resistance coupled Circuit published in these columns recently.

**A.B.C. (Bundaberg).**—Build Countryman's One Valve; published recently.

**A.C.T. (Drummoyle).**—Open grid circuit

**J.G.H. (Kilcoy).**—Burn-out primary in transformer. Place a 100,000 ohm across primary.

**E.L.M. (Nerang).**—Quite O.K., but difficult to control. Re Schrell. Not to be compared with other circuits. Yes; I agree. Far too much for one letter.

**J.R.S. (Hurstville).**—Use variable resistance 0 to 500,000 ohms. Formula is as Ohm's Law R equals E over I, i.e., resistance required equals required voltage drop over current that will flow through the resistance. You did not state current so the correct resistance could not be figured out, but the one stated will give you good control. If the current is in m.a., do not forget to reduce it to amps.

**L.H. (Mooloo).**—An aeroplane's aerial is let out from a reel once the plane is in the air. The "earth" is connected to some metallic part of the frame, thus constituting a balancing capacity. Am returning photograph. Thanks

**A.P. (Mosman).**—Try choke in plate lead of valve

**A.R.C. (Toowoomba).**—Either set. Both the same as regards circuit. Philips, Marconi, Osram, or any well-known type valve. Speaker not important. Pick one to suit your ear. Philips' valves not so heavy or current; Six Sixty particularly so.

**A.MeA. (Murwillumbah).**—Wrong valve grid leak o.k. grid dias. Try reversing re-action. Valve may also be faulty. Try reversing grid return.

**"MUG" (Cessnock).**—By using heavier gauge wire you have done the same thing as putting on less turns, which means that too much current is flowing through the coil. Re-wind, using same gauge wire as that removed.

**N.B. (St. George).**—The valves mentioned O.K.

**"INTERESTED" (Lower Mitcham).**—Build Go-Getter, leaving out last audio stage.

**A.G.B. (North Strathfield).**—Thanks for getting "straight for business." Necessary to build or buy wave trap. Suggest circuit that has appeared several times in these columns as being a good one. Other set mentioned miles behind Marco in DX and volume qualities.

**"MUG" (Cessnock).**—Makes no difference. You query answered above.

**S. McC. (Leichhardt).**—Evidently you connected batteries wrongly, placing too high voltage on detector valve. You did not mention what type valves you were using. Philips and some other type valves have no visible filament glow. Use 20-30 volts on detector.

**H.C. (Oatley).**—The De Luxe. Output transformer not necessary, but worth the inclusion.

**A.R.A. (Brisbane).**—No; transformers too large ratio. Use 1-1 in first stage, and 3/4-1 in second stage. If three-inch formers used, increase number of turns by one-third. Detector: PM4D PM2A power valve (for last stage).

**I.S. (Sydney).**—Excellent. Yes, quite O.K. Only error re rheostat. It should be at X on your drawing. Components O.K. Pleasure to answer such letters.

**R.M.F. (Boorke).**—Valves suggested. O.K.

**L.W.G. (Lakemba).**—An imposing list of statistics by the Countryman's One! It is generally understood in these days that a vernier dial is necessary. You will note a big improvement. Of course, it is necessary to turn rheostat at least half-way on. This is because when it is nearly off almost the whole of the resistance is in circuit, and this stops the current from reaching the valve. It is only necessary to turn the rheostat right off. The "Y" series will take care of themselves. No. 310 does not run 50C. It was a broadcast from both stations. The SLO announcer made a very nice announcement. My final remark: "I have been reading WIRELESS WEEKLY for twelve months, and hope to read for another twelve" is neat.

**"GWALIA" (Balmain).**—Midget condenser in series with aerial may help. Can aerial and earth ground be improved? Just as important as the set or its stuff. 25 turns 24-gauge D.C.C., O.K. You can use a 189 (3 1/2 volts). Cut down voltage slightly with rheostat. No alterations necessary. Six volt valve better.

**E.F.P. (Harilton).**—Not obtainable in Australia at present. Small shipment on way from America. Will be in time for Radio Exhibition; so keep your eyes open there, and order your requirements. Many are waiting eagerly for photo-electric cells.

**W.R.M. (Glen Innes).**—Don't you ever get tired writing to us? Answered about a dozen of your queries this year. No means of telling resistance of rheostat by judging how close turns are wound. Didn't even state number of turns, gauge wire, etc. Probably, 20-30 ohms O.K. for single couple of four or six volt valve.

**L.S. (Brisbane).**—Three pages too much. Please state remarks at end of letter. We take it for granted unless you advise us to contrary. Greater accuracy time taken in reading through letters to find what is required. Build Marconi Five. Philips 100 valves, E type. All-Emire S.W. set. Three windings feasible in Brisbane. Need stage of R.V. Allsop is back again, and going as hard as ever whilst Mr. Knock still continues to experiment with Screen Grid Valves, with success.

**W.B. (Sarna Sound).**—That's all right. Better in circuit than one which might be in circuit. Wave trap necessary. Not enough "B" value on detector. Try a .001 fixed condenser across primary of first audio stage. Old-type condensers will do for briefness in a virtue, some details unnecessary otherwise. Replace old parts with modern ones.

**S.T.C. (Alpha).**—Neutrodyne in last issue. My own say is: "Set does not work satisfactorily. What briefness in a virtue, some details unnecessary. A thousand things may be wrong, but there is no room to detail them here. You must tinker down for us.

**"ELSTHEM" (Redhill).**—Push-pull transformer 50 for your purpose unless used as push-pull. Two valves in parallel necessary in audio stage. Cannot be responsible for circuits published in "Listener" but they are usually O.K. to the best of my knowledge. If you forward a replica of their circuit, a few more details may be able to help you.

**H.C. (Rockhampton).**—No need to send coupon when renewing subscription. Alterations should not have been made to coils, which are now probably unusable. Try placing one more fixed plate on 100 condenser. Increase coupling in R.F. stage. Screen aerial. H.D.O. is right. Did not see your non-dephume till afterwards. Stuck away in corner.

**H.T.B. (Chatswood).**—Follow Screen Grid Marconi Five R.F. Stages. Valves O.K. Suggestion in new. We specify capacities as found best by my own experience suggested circuit. Suggest .006 by-pass, not necessary to by-pass choke to S.G. supply.

**E.G. (Stockinbinal).**—Condensers O.K.

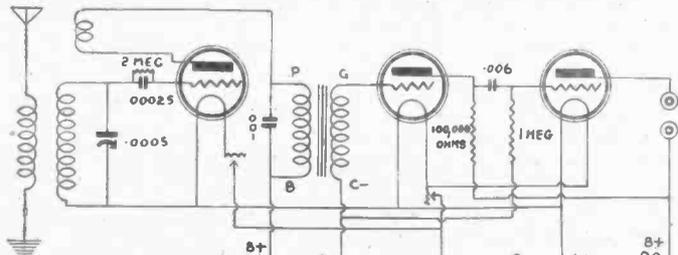
**B.A. (Amidale).**—No; you received the station correct, but you got the call wrong. It was 5GG, were coming through well lately.

**W.S. (Exeter).**—You could use the detector portion only. Reduce voltage on R.F. valve, which is oscillating. Try a choke in series with the plate lead of the detector valve. The article gives coil specifications.

**APCO (Aberri Park).**—Yes; phone stations only Grid leak troubles. See also if "C" battery is O.K. WEXN relays EGO on 23.38 metres every Wednesday from 11 m to 5 p.m. Sydney time. Fill on at various times.

**J.D. (Young).**—No. The All-wave Four.

**T.A.R. (Brisbane).**—A good aerial and earth essential. This is probably your trouble. Valve O.K.



The three valve Old Reliable circuit requested by A.D. Cabarita. This receiver is simple to make and to use. Coil instructions are given in the reply to the inquirer.

E.T.J. (Moss Vale).—An amplifier of some sort is advisable. Wrong coil combination probably cause of failure. Use Go-Getter home-made coils.

B.S. (Dubbo).—Circuit of a short-wave adaptor using S.G. valve appeared recently in an article by Percy Graffam. Set of 8245, T.R. 8225 is of the six-volt type, and A442 of the four-volt type. Reason why you can hear broadcast stations on S.W. is because you are listening to harmonics. The first harmonic would be (for 2FC) 221 metres, the second on 110 metres, and so on. The sixth harmonic is the fundamental divided by seven.

F.W. (Richmond, Victoria).—Sorry to hear of your trouble with the Midget SG Four. It is hard to know what to advise, as you seem to have explored every possible cause of the trouble. The best thing to do is to ignore the RF and get the detector in operation first with regard to smooth oscillation. If you are not hearing any Morse at all, as you say, then the set is most certainly "dud." There is obviously some little detail you have overlooked in the operation circuit, but it is those details that stop oscillation. Have you enough turns on the reaction coils? Attend to the RF when the detector is in operation, and keep either your RF coil or condenser a little larger than the detector. Hope you find your trouble—guess you will.

S.G.B. (Randwick).—Very meagre details. Try using 20A valves.

R.B.P. (Plumpton).—Wiring probably wrong in R.F. stage.

E.S. (Darlinghurst).—An article covering this (as mentioned several times in these queries) will shortly appear.

L.M. (Victoria).—A442. Do not advise you to make set A.C.

E.L. (Clarence River).—See Go-Getter article. This will explain S.G. Max Four the better receiver.

R.S. (Gordonvale).—Try .002 condenser across secondary of transformer. Excellent on B.C. Band with Radiokets No. 5 coils. Speaker O.K.

R. Me. (Kyogle).—Always an advantage to shield. It is extra for 2 inch formers. Yes, you are correct. Though reaction may be all right in radio receivers, it is to be hoped reaction does not set in after answering existing signals.

B.F. (Townsville).—Yes, another audio stage can be added using resistance coupling. Circuit appeared in these columns a few weeks back. Can be adapted to S.G. valve but using S.G. valve for detector.

The S.G. circuits recently published. You can use the transformer mentioned.

B.G.C. (Ashford).—Make the Eliminator. Choke depends on current it has to carry.

J.G. (Orange).—Valves may require changing any time now. It would be advisable to get a new set, and keep the others as standards.

Keep the aerial as high as possible. Helixen your aerial if it is not already more than 30 feet high altering direction will sometimes help.

K.W. (Belmore).—See Go-Getter, published April 1929, conditions on S.V. Fluocinate.

A.W.K. (Ballina) writes—"In your Information Service columns of 5th Inst., a chap signing a non-plume 'A Young Fan' from Galong, writes asking questions in the use of a transmitter for use in telegraph office style (his sounder would do), and make use of a wire fence if one is handy and continue enough to know a farmer at Clarence, near Grafton, on the Clarence River, who lives 12 miles from the main road. He utilised a galvanised wire fence to telegraph to another farmer on the road. He used to get his mail, both got excellent telegraphists, both sounder and buzzer. The wires were coppered to lessen resistance, and dry cells were used as battery power. If Galong is a country like the telegraph office, perhaps O.M. friend may find the idea useful."

Answer: Thanks. Have published your letter in full owing to the fact that it has been decided to refer such enquiries to Mr. Crawford (Ed.) license first, and further post to the particulars. There are a number of unlicensed transmitters at present on the air, and they are liable to be removed. Licensed amateurs. In future, information, other than theoretical, will be given through these columns to any licensed amateurs quoting their call sign, in connection with transmitters.

C.R.W.L. (Frankston).—Same way as All Empire.

T.J.B. (Mile End).—Receiver will suit your requirements.

D.E. (Coorparoo).—Take a few turns off primary in R.F. stage.

C.B. (Newcastle).—Sorry we have no copies. Some reader may have a spare copy of W.W., February 1, 1929, inquirer, C/O Bernard, Box 484, P.O., Newcastle, who will pay for copies and postage.

J. WILLIAMS, 750 Great North Road, Ryde, inquires if any reader has a spare copy of "WIRELESS WEEKLY" containing the Improved Reinhart.

R.F. (Perth) inquires if any reader has a spare copy of the All Empire receiver on the Screen Grid Four? Inquirer, C. E. Peet, 46 St. George's Terrace, Perth.

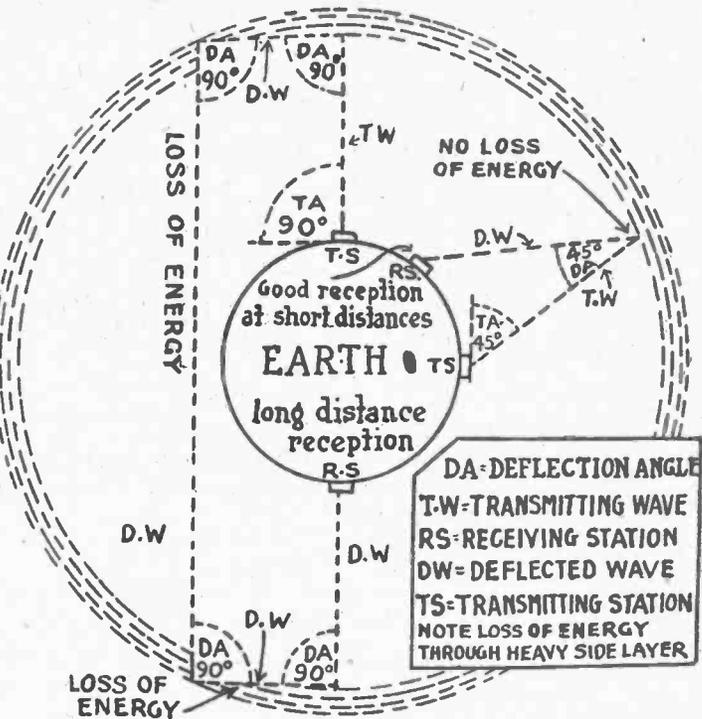
W.E. (Casley Vale).—W. White, 4 Dawson Street, Croydon, wishes to get in touch with you. Has something to your advantage waiting for you.

M.B. (Auburn).—Transformers O.K. Valves mention to improvement, providing you use six-volt accumulator for filament supply. Old-type variable condenser O.K. for wave trap, but not suitable for main tuning control. Thanks.

K.M. (Mount Druitt).—Have been unable to trace name and address required. Complete list of amateur call signs consistently heard will be published shortly. We are waiting for definite information. Please if any reader can send any up-to-date list.

For improvement, providing you use six-volt accumulator for filament supply. Old-type variable condenser O.K. for wave trap, but not suitable for main tuning control. Thanks.

M.C. (Willoughby).—Grid leak, grid condenser, or detector valve not seated properly in socket. Try .0001 fixed condenser in aerial lead. A midget condenser might be better. Failing this, wave trap will be required.



T.E. (Brisbane) asks for a diagram explaining further the deflection angle of a radio wave in relation to the Heavyside layer. This drawing, in connection with the answer to T.E.'s query, will be of interest to all those following "Proving Radio."

A.J. (Sydney).—Direct Current Eliminator. Connect positive side of mains to one side of a 4 mf. condenser (call it C1), thence to one side of a 50 Henry Choke (call it Ch. 1), and the other side of Ch. 1 to one side of another 4 mf. condenser (call it C2), then on to one side of an Emmegated, No. 3 or 4 (call it R1), and on to another Emmegated same resistance (call it R2), then to B plus power terminal. From other side of R2 to B plus Amp. terminal. From other side of R1 to B plus detector terminal. From B negative terminal to one side of a 2 mf. condenser (call it C3), then on to one side of a similar capacity condenser (call it C4), thence to the remaining side of C2, and on to one side of a 50 Henry choke (call it Ch. 2). From the other side of Ch. 2 to the remaining side of C1, and thence to the negative side of the mains. From the other side of C3 to the B plus amp terminal. From the other side of C4 to the B plus detector terminal. Condensers should be tested to 500 volts.

A.F.C. (Victoria).—Did not receive the communication referred to. Sorry no copies. See below.

Mr. ALFRED M. COATES, 21 Beach Avenue, Elwood, S.S., Victoria, requires urgently a copy of WIRELESS WEEKLY containing the S.W. Screen Grid Four. Can any reader oblige, please?

W.G.R. (Roselle).—No, circuit correct; but you can leave out the .006 condenser in the R.F. grid return.

F.C. (Thornleigh).—Add stage of A.F. Circuits have appeared in these columns frequently during the three and a half months.

E.B.Y. (Warrego).—Amplifier O.K. UK112 valves. 150 volts on plates. Eliminator circuit O.K.

"RECTIFIER" (Ballarat North).—See "Proving Radio," Parts 3 and 4.

E.A.R. (Nundah).—Do not recollect seeing circuit described. Pleas'd to receive a copy. 11 p.m. in Sydney would be 10 p.m. in Tokio.

J.C.B. (Auburn).—Yes, Renewal. Transformers O.K.

G.R. (Petersham).—Faulty valve or transformer. Perhaps valve is not making contact in socket, aerial, or earth left off, wrong battery connection, or a lead left off.

E.W.E. (Adelaide).—Reinhart with R.F. stage added is Marco. Yes, we have received from the printer a few extra copies. Do not forward copies without prepayment. Have too many such requests.

R.B. (Garterbury).—K.B. for S.W. unless you change tuning condenser for one of about .0025 mf. Coils same as Go-Getter.

P.C.M. (Auckland).—Try midget condenser in series with aerial.

E.C.W. (Stannure).—Don't worry! Ask a friend who understands circuits to check your effort. Evidently you have made an error in wiring somewhere. Place tips of phones across plate of first valve and B plus detector, then tune. If volume fair place phones across plate of next valve and amp. B plus. This will show you what part of the set the fault is in. If volume O.K. in detector and first audio stages fault will lie in last audio stage, etc.

R.P.J. (Balmoral).—Set evidently of old type. Needs re-modelling. If my assumption not correct see to valves and transformers.

J.B. (Jervis Bay).—Type of wave trap in your case

will depend on nature of interfering signal. Try the Purness wave trap, published in this paper recently. Rushing sound developing into a roar, probably grid leak trouble.

A.M. (Darlinghurst).—No. 2, best results. Audion Speaker Unit. The measurements show O.K. Use 14 gauge galvanised iron. Well worth making.

S.N. (Mullumbimby).—Re earth. The larger the better. Aerial should be at right angles to any power lines. Wave-trap O.K.

J.E. (Glebe).—"Erewhit with an article on radio and any allied subjects. Is it fit for publication or for delegation to the W.F.B.?"

Answer: Neither.

J.S. (Woolahra).—B408 valves O.K. Brachstas O.K. condenser O.K. Jack O.K. Wave-trap may be necessary.

F.E. (Bexley).—Does not require fresh electrolyte. Electrolyte is made up as a commercial product for Balhite Charger.

F.K. (no address).—See All-Empire.

Mergo (Melbourne).—Depends on length of aerial, etc.

P.J. (West Wollongong).—Follow Maroonk Five circuit. Grid trouble might cause spluttering. Re screen: O.K.

W.W.S. (Drummoynne).—Soon.

R.H.F. (Queensland).—Primary O.K. 200-500 metres. Probably an amateur you heard. Don't think ten metres will ever be of practical use commercially for long-distance work.

**QUERY COUPON**

If you are in difficulties about reception or set-construction, let us know, and we will endeavor to set you right. Make your questions brief to the point, and, where possible, show lay-out and wiring diagram. Under no circumstances will we answer to queries by letter or by telephone. All answers will appear in the columns of this department in the order in which they are received.

Write to the Editor, **WIRELESS WEEKLY**, 111 Market Street, Sydney, N.S.W.

Please answer the accompanying queries in the order in which they are received. I enclose a 1/6 stamp in order to indicate that I am a bona-fide reader.

When you have visited the Exhibition and picked out the set you like best call around to our showroom and let us demonstrate OUR models to you.

We are too busy attending to our numerous clients to exhibit this year, but we invite your comparison of our sets, on a quality for price basis, with any other sets on the market.

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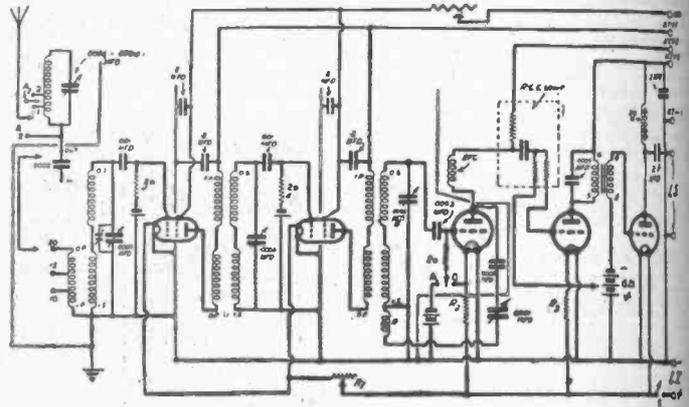
WRITE TO DESK DD FOR TERMS AND PRICES.

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'Phone, B1817



W.B. (Rozelle) has been kept some considerable time for this circuit of the 1928 Bole-dyne. Others interested in modernised versions of standard receivers will also find the way to adapt their Neurodyne to Screen Grid. The circuit is practically the same throughout.

- F.W.H. (Queensland)**—PH1 comes in below 2ME. KGO ditto, on 23.5 metres. A complete list will be published shortly.
- F.L. (Strathfield)**—Build Go-Getter. Glad you like "Proving Radio." Letter passed on to "Back Number" Department.
- W.F.S. (Mitcham)**—An underground aerial is one which is buried beneath, but is insulated from the earth. It is claimed that this type aerial eliminates almost entirely the static bugbear, but there is a slight loss in signal strength. Add S.G. stages as per S.G. Midget Four. Yes, because they are made for 240-volt circuits, but they will work on about 180 volts in the same way as the ordinary lamp globe will function off this voltage.
- A.E.G. (Crow's Nest)**—Greenwich central time.
- G.F.B. (Draha)**—Bud wiring. Watch plate and grid leads. Write to Economic Radio Stores. Connecting speaker wrong way round will damage magnets.
- A.G.B. (Anackland)**—We do not reply by post. WIRELESS WEEKLY costs 3d, not 2d; and postage costs 1d. Have no back numbers of the issue you require. Shall I make a note in these columns in connection with your requirements? Repeat your query; but cut down your letter.
- G.E.H. (Newtown)**—Your query answered before. My reply was "Yes."
- W.G.W. (Campsie)**—Three stages R.C. amplification. We have discontinued the practice of forwarding non-subscribers' copies on account, because many inquirers fail to justify our trust.
- General**—It is regretted that an error appeared in the circuit and back of panel diagram of the Marnock Five, which will explain why reaction is difficult to obtain. The R.F. choke was placed in series with the lead to the plate of the detector valve, whereas this choke should have been placed in series with the plate lead to the first audio transformer. A correction diagram will be published shortly.
- W.G. (Roseville)**—This was a printer's error. The correct circuit and article appeared in the following issue.
- W.H.F. (N. Coast)**—Should bring in 7ZL. Try adding ten more turns to R.F. and detector secondary coils. Tuning dials should read approximately the same. Adjust coils. Re S.W.: No. Build S.W. adaptor which appeared in these columns a few weeks ago.
- A.E.S.C. Penman Hills**—No; the Marnock Five would be better, but note remarks made at the head of these queries.
- C.V.L. (Lakemba)**—Would not be efficient.
- H.A.R. (Ryde)**—Reverse connections to tuning condenser, or use back of panel shield. VK3AL can be found at following address: A. D. Kew, 1214 West Street, Ryde. Re resistance couplings: O.K. Primary 100,000 ohms. Secondary 1 meg leak. A .006 fixed condenser should be connected between the two resistances.
- C.E. (Grafton)**—Write Phillips Yor folder. O.K. on two Atara amplifiers. Electric records not necessary. Colville Moore, Economic Audio, Levenson's, Harringtons, or any such firms.
- W.J.B. (Plemincton)**—Re transformer. Could not be used. Commercial job, and valve therefore, cannot give details, even if we were certain of its construction. See the new A.R.R.L. handbook, complete instructions given here for building one. Will publish A.B.C. Eliminator one of these days.
- F.H. (Coolamundra)**—A.W.A. Metropolitan, Electric Electricity Meter Manufacturing Supplies Co., Harringtons, Murdoch's, Grace Bros. Re counter-appointments, O.K. Faulty valve. Aluminium O.K.; you've probably earthed something that should not be earthed.
- J. McP. (Covva)**—Open grid circuit; 100 feet O.K. Re other set, it should be placed in some spot where coils will not influence the S.W. receiver. As the set mentioned is all-electric, when it is in operation, a good deal of hum will be filtered away to earth, and this explains why we are picking it up in the S.W. receiver. A fixed condenser in earth lead of electric set may help, but a counterpoise on the S.W. receiver would be better. Glad you like "E.R."
- R. McC. (Leichhardt)**—Kug O.K. Regret we have no copies left. Can any reader oblige Mr. R. McClymont, "Birkdale," 101 Renwick Street, Leichhardt?
- E.J. (Adavale)**—Alterations O.K. Suggest map of audio. Circuits have appeared frequently in these columns.
- Distortion (Adavale)**—Too high voltage on detector valve, reversed connections to speaker, faulty speaker, faulty transformer, insufficient or too much grid bias.
- W. Gillett, "Dunblair"**—Kissing Point Road, Tyrn-mura, asks if any reader can supply him with W.W. dated July 13.
- W.T. (Pomona)**—Phillips have lamps suitable in this purpose. Signs of flat "B" battery, weak reception, sometimes accompanied by whistle, all of volume.
- W.D.S. (Troyden)**—It would be better to build the Renown Three.
- H.S. (Dubbo)**—8025 is the 6 volt S.O. valve. Also is one of type you hear local stations in harmonics. See circuit by Percy Grafan, published recently.
- R. de M. (Brisbane)**—Moving plates to earth side of circuit. Your detector valve is evidently oscillating. Reduce plate voltage.
- I.O. (Brisbane)**—N.G. for "A" charger. Changing rate too low. In radio, harmonics refer to the incidental waves mostly noticeable in "medium" wave operation. These harmonics differ in frequency and length to the fundamental wavelength and frequency.
- S.L. (Auburn)**—Use B406 in place of the other detector valve mentioned. Neutralise as follows: Insert one end of filament prongs of first 3 Z valve with a piece of paper, and replace in valve. Remove any fixed or variable condensers in series lead. "Tune-in" station at full volume, and adjust neutralising condenser until station fades out nearly so. (Use a station in centre of broadcast band, such as SLO or 2BL). Remove paper from valve pin, and replace valve, when station should be heard at full volume. Repeat with other 3 valves.
- K.C.L. (S. Brisbane)**—Cause is saturation. See wave-trap published in these columns recently.
- "Z.Z." (Bowral)**—VMG works on 33 metres.
- H.G. (Lewisham)**—150 turns 30 gauge D.A.G. wire on 1/4-inch former.
- G.W.E. (Goulburn)**—Charger O.K. for your Philco. Place 30 watt lamps in series with mains to reduce charging rate.
- W.R.S. (Queensland)**—Since you posted your letter Go-getter has been replenished.
- E.W. (Yorketown)**—Jack O.K. Rheostat data. Rheostats could be mounted on baseboard but is sometimes necessary to make adjustments to R.F. and detector rheos. Not necessary to use cushion sockets. Advance condenser O.K. Grid condenser in original set was a Mullard. Re "Proving Radio": Glad you like it. Machine screw you mention N.G., because the core must be of iron.
- W. Adams, Scruttons Ltd., Woolworths, Mac and Kirby.**
- J.H.L. (Edgecliff)**—Not enough details. What circuit are you using? R.F. stage probably necessary.
- "Pommy" (North Sydney)**—I've seen some rough drawings in my time—but... A battery probably flat or rectifier left omission. Yes, you could make an "A" charger. Glad you like "Proving Radio."
- W.C. (Queensland)**—Valve (detector) may have lost its emission. A 0001 fixed condenser in series with the aerial may help. Measure details.
- M.H.S. (Sydney)**—Sorry, no room at present. Follow out S.G. of any S.G. broadcast receiver published in this paper recently.
- W.T. (Peterham)**—See A.W.A. Handbook, 1938.

**F.H.J. (Kearnsby).—**Trouble is in detector grid circuit.  
**K. (Ashfield).—**6 ohm rheostats for separate control; 30 ohm rheostats when one rheom used for all valves.

**J.H. (Bundarra).—**Same course. Smith and Uim are endeavoring to beat Hinkler's record.

**D.W.W. (Lindfield).—**100 m.a.  
**C.H.L. (Randwick).—**Build All-Wave Four, leaving out last audio stage.

**T.E. (Queensland).—**Do not know what station this was, though I hear him often. Wave is about 2 metres.

**"Mag" (Queensland).—**Set not neutralised. See notes on neutralising to a quersetist above. Mark-ack Five, but note remarks at head of these queries. All-Empire or Air King for short-waves. Write to Amplion for leaflet.

**P.M. (Queensland).—**Yes, Marnock, but note answer at head of these queries. Aluminium O.K. kit obtainable from Radiokes, price 32/6.

**D.M. (Randwick).—**Many such circuits published in these columns recently.

**"Nent" (Mudge).—**Your drawing not a work of art. See Neutrodyne in this issue; 6-volt slightly better.

**G.C.Q. (Hurlstone Park).—**201A's should be O.K. Paste has come away from plates of accumulator, and is shorting the charge. Set not properly neutralised. See instructions for neutralising given in another queryist above. Also see this week's technical article. 2LD's address is: L. D. Dodds, 3 Woodland Street, Marrickville.

**R.J. (Victoria).—**Rectifier O.K. Like to have that done. Will consider suggestion. Space at present available.

**J.C. (Randwick).—**Try connecting earth to other end of filament, and also reversing grid return lead. Make one adjustment at a time. One side of earth is earthed. Philips supply a tapping for earth connection. Try counterpoise for set.

**G.M.S. (Gladesville).—**Excellent volume. Not too selective. Good set used in conjunction with wave-meter. Alternatively build Renown Three.

**M.J. (Aurville).—**Circuit and suggestions O.K. (this same as Midget R.F. Four, but may have to be slightly adjusted).

**G.H.A. (Undercliffe).—**See this week's Neutrodyne. Marco is good. Small condenser probably has capacity of 00035 mfd. Re A.C. valves, no.

**Mr. J. J. Menary, Belarab, Wee Waa, writes: "I regret that I shall not be able to attend to any more applications that may come to hand for WIRELESS WEEKLY, as I have been lucky enough to get ill, and have been ordered away for some time. If you have not already published my previous letter in your query columns, will you please withhold same until I return, so as to save disappointment to your subscribers? I am sorry I have been compelled to do this, but it cannot be helped."**

**Answer: Quite O.K., Mr. Menary. Sorry to hear of your illness, and hope you soon get better.**

**C.C.J. (Randwick).—**Filament of first valve mentioned takes .24 additional filament current to the second valve mentioned. With first valve (one valve receiver), "B" battery would last same time as with other valve, since "B" consumption is approximately the same. Would last about six months (good battery). Two valves about four and a half months; three valves about four months.

**I.C.H.W. (Port Moresby).—**See Marco Four article published recently. Glad you like P.R. Regret no room at present for back of panel diagram requested, but will be pleased to publish it later.

**C.P. (West End).—**Two inch formers. Formers can be bought in six-inch lengths, but of unnecessary length after coil has been wound, leaving enough for mounting purposes. O.K. with the Inexpensive Eliminator.

**A.E. (Rose Bay).—**The Wireless Institute may do it for you. Mr. MacLurcan used to calibrate wave-meters. I think his charge was a guinea.

**G.J. (Waverley).—**Regret we have no data on this one, which is an English type. Perhaps the agents for Mazda lamps will be able to advise you. The agents are the Australian General Electric Co.

**A.P.R. (Chatswood).—**The most important parts you left out. What circuit are you using? The trouble may be due to a loose lead in the set, to a faulty valve, grid leak, or grid condenser. Try a 100,000 ohm fixed resistor across primary of first transformer.

**H.C. (Gympie).—**Started reading your letter about an hour ago. Just finished. Do not advise gangling unless R.F. trimmed. Re Marco S.C.: Excellent with Pentavox. Circuit appeared in these columns a few weeks back. Reaction control not critical. Variable condenser can be used, but advisable to do a few more turns, though not necessary. Use D.S.O. wire for coil windings. Shielding good. Stop pick-up by coils. Re earthing of rheostats: They can be earthed if desired. Circuit O.K., but only one aerial is required.

**R.P. (Osley).—**Cannot be done without complete rebuilding. Re Willard: No; quite O.K.

**H.H. (Wynnum South).—**Cheer up B supply with wimter to see that you are getting full voltage. If cells are in any way run down, it is useless to connect a number of them in series in an effort to boost up the voltage, because the resistance of each rundown cell will cause a voltage drop that will bring the voltage output much lower than the output of the highest cell. You do not give enough particulars about the set.

**T.G. (Babinda).—**Re screens Quite O.K. If you experience difficulty in receiving telephony: try a potentiometer of 500 ohms resistance in the circuit. See as in the Air King.

**C.F.C. (Jervis Bay).—**You say you don't know what a three stage audio transmitter is. We must not be conceited. Get the W.A. station, works very high wave-length—1250 metres. The average broadcast set tunes only from 200 to 500 metres, so that you would not (if you took up only a set with you) be able to hear a local station (except, perhaps, on a harmonic). On the other hand, if you have a set tuning around 1200 metres, you would not be able to receive eastern States. Your best plan would be to build a set (or purchase one) using

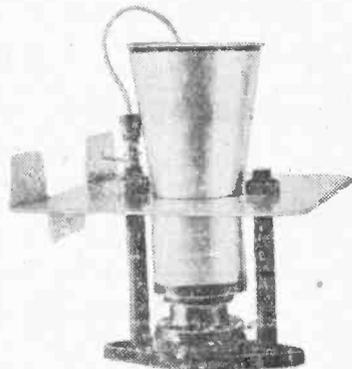
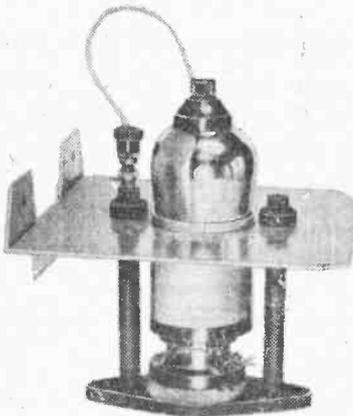
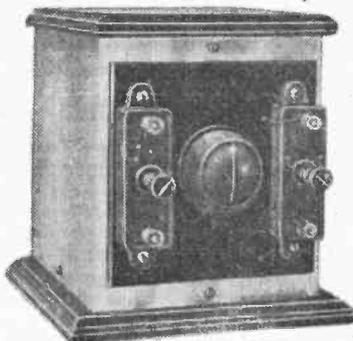
# FURNESS

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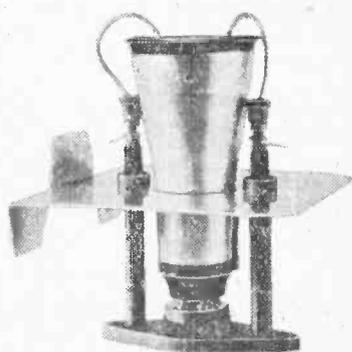
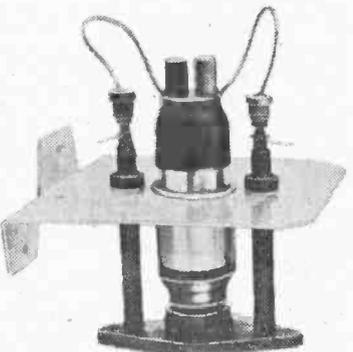
The trap is first tuned in to any two stations you want cut out; say, 2BL for the lower band, and 2FC for the upper band, and left permanently on this station, and in using set you simply turn a switch to tune out one or the other. Once tuned, you only have to turn switch for results. The whole of the parts to make same

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