

Ross A. Hull (Late QST), New Technical Editor

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

INCORPORATING "RADIO IN AUSTRALIA & NEW ZEALAND"

VOL. 14. NO. 1.

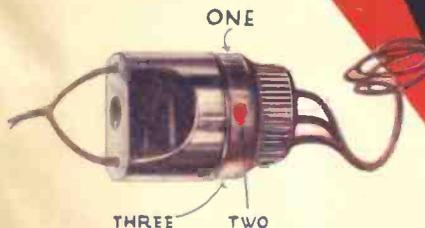
FRIDAY, JUNE 28, 1929

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TECHNICAL POLICY  
By ROSS A. HULL

INTERNATIONAL  
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# PHILIPS



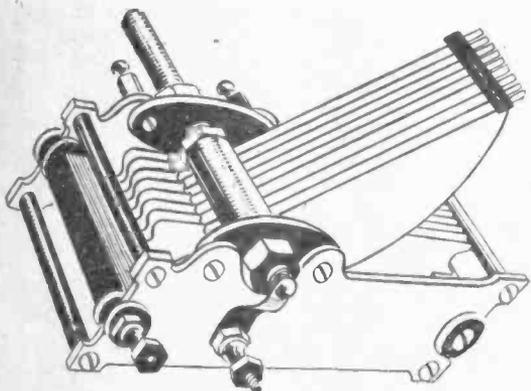
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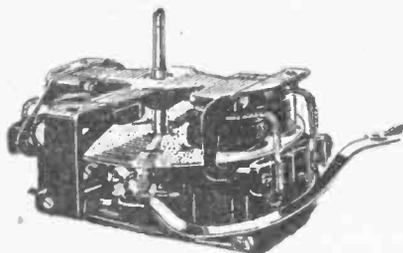
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Vol. 14, No. 1  
Friday,  
June  
28,  
1929.

# Wireless Weekly

*Incorporating "Radio in Australia & New Zealand"*

Address:  
Box  
3366 PP.  
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Sydney.

*FACING THE "MIKE" FOR THE FIRST TIME*



The new Australian Broadcasting Company broadcasts its first programme on July 17. The radio world will be "all ears," but it is certain that the artist exaggerates the possible nervousness of the A.B.C.

# Between You & Me & the Microphone

**Y**OU may notice a man weeping bitterly somewhere on this page, dear friends. He's probably got over it by now. The occasion was the removal of WIRELESS WEEKLY'S offices into the SUN Building—a magnificent structure, dear friends—a Magnificent Structure. Still, the Old Place, the Old Familiar Face of the liftman, the ink-stained carpet, the long walk from here to there, and the gay multitudes of young and beautiful dressmakers (especially the multitudes) are not likely to be forgotten. But WIRELESS WEEKLY is growing older. Time changes many things. Blood is thicker than water. We wouldn't have come, only we wanted to be near our sun.



to 2BL. We passed into the lift, hat intact; and proceeded towards the fourth floor. Then we decided to stop at the third floor. There is a beautiful maiden on the third floor, and her name is Miss Patterson. Special stop button pulled us up six inches too early; and, stepping out, we collided our head, to which the hat of WIRELESS WEEKLY still clung, clang, or clinged, against an oiled steel bar. And even if Mr. M'Neil, 2BL's tall engineer, did the same thing three weeks ago, that doesn't remove the stains from WIRELESS WEEKLY'S hat. Uncle Bas. says something about petrol; but it isn't the hat we're worrying about; it's the bill for repairs to that oiled steel bar. Dear Mr. Lawrence: please mention WIRELESS WEEKLY—no matter HOW weakly—when you tell this story. . . .



**W**E listened to the storytellers telling stories in our Storytelling Competition. We liked each story; but we prefer none. Because, if we weren't to give the palm to Mr. Baeyertz, he might write in and find fault with our English. Mr. Hall might give us our Deserts. Mr. Kirke would combine the twin horrors of utter tropicallity and the cold shoulder. The Storyteller might give live up the "Ghost," which we don't want. Brings would make things look black. And Mr. Price Conigravé might give vent to an anchery whale. So we'll tell a little story ourselves.

**W**E happened on Miss Gibson the Worried the other morning, while she was concocting the programmes. Yet there was laughter in the air. Miss Eileen Boyd had sent in a programme, containing "She wore a wreath of roses." "By Knight!" added Miss Boyd; and it's very cold weather to appear in such a manner at such a time. But that was only by the way. The question was, how to spell Sappho. Miss Gibson was telling Miss Andrew, one of her lieutenants, how to spell it; and we were foolish enough to remember Byron. We raised our hands and arms spectacularly, and recited: "The isles of Greece, the isles of Greece! where burning Sappho loved and sung!" "Wrong! It's sang" said Miss Gibson. "Beggin' yer parding, Miss, it's sung," we replied. "Not at all," said Miss Gibson. "Wot'll y'ave on it?" we asked. "Packet of D'Reszkes," Miss Gibson said, without a quaver or a quiver. "Small packet," she added. "Make the payday Friday?" we asked anxiously. "Done," said Miss Gibson. We are borrowing a Byron from a friend tonight; and, if it isn't as right as we would have it, we'll get out a special edition . . .

## Listeners We All Know—No. 4

### THE ARTIST.

**P**LEASE don't look so more-sorrowful-than-angry, Mr. Zalenski. Such looks almost reconcile us to being ordinary. Mr. Zalenski, is it really very different—being an artist? Does an artist really live the different life? The Higher Life? Mr. Zalenski. . . Shhhh.



The Artist stands with his ear turned well towards the loud speaker. Mr. Kirke announces, "Mr. Hodenski will now play 'The Clown's Gavotte,' by 'Spossoliks.'"

"I want to listen to this," says the artist. I played this five years ago—first time in Australia." Mr. Hodenski begins to play.

Everyone knows "The Clown's Gavotte." Such an exquisite thing! Mr. Hodenski, admirable fiddler, interprets it charmingly. You say, "How perfectly delicious! I DO like that piece. And he's not bad, is he?" "Humph!" says the Artist. "Humph! Yes; not bad! Although I—er—well—er—well, of course. Not bad, as you say."

You get the idea? He's not bad. No, not at all. You couldn't possibly say THAT about him. But you could say anything else. You could compare Mr. Hodenski with an organ-grinder or a street singer, or a soulless centipede; but, of course he's not bad. One must be just.

Poor Mr. Hodenski! You realise your mistake. You say, "Of course, his technique isn't much and his conception of his subject is frightful! But, what I meant to say was—er—er—his . . . ." "My dear sir," says the Artist, "I have known Mr. Hodenski much longer than you have. His technique is all right. His conception is all right. Don't you get the idea that I said anything against Hodenski's technique or conception! He's all right. Yes. He's quite all right. Oh, quite. Yes.

No, Mr. Zalenski, Artists may lead the higher life; but, really, we don't think they are very different. We could all be artists if we only had the skill, Mr. Zalenski—we've all got the temperament.

an outside aerial and an indoor aerial equals one license fee. The only question is, whether Mr. Crawford will consider it in the interests of Public Morality that we should publish such statements.

2BL's aerial blew down in a recent gale. Mr. Allsop consigned the gale 2 B. . . LI

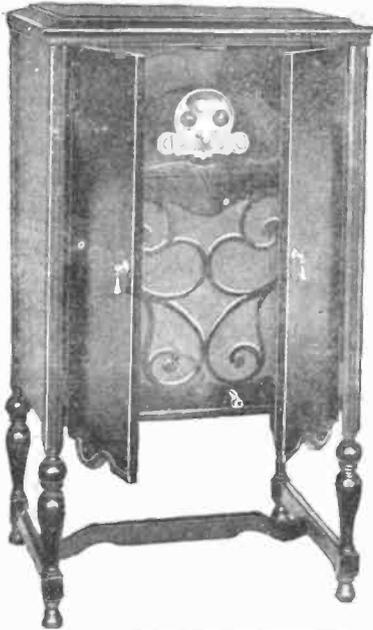
**W**E have received this aigHebraic definition from Glasgow: The difference between

*James*

**W**IRELESS WEEKLY bought a new hat the other day, and took it on its head

# Stromberg-Carlson

## TREASURE CHEST RECEIVERS



**S**TROMBERG-CARLSON Treasure Chest Receivers are entirely "Australian-made," designed by Australian Radio Engineers and are backed by the Stromberg-Carlson Laboratories, Rochester, New York, which are of International renown. They embody to the greatest possible extent the many quality features, so well known and associated with the name—"Stromberg-Carlson."

They represent the first completely chassis designed Radio Receiver produced in Australia, and are the last word in scientific radio design and construction. The choice of models is very wide, and the range of prices makes it possible for purchasers of average means to acquire a Quality Radio Receiver that will give entire satisfaction.

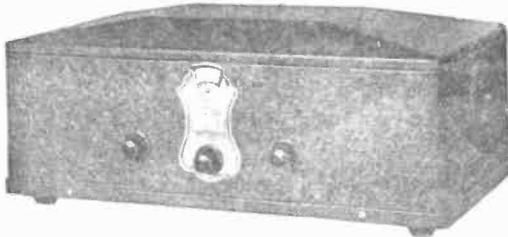
Stromberg-Carlson Receivers are specially designed to suit Australian conditions, and are pre-eminent in range and tonal quality.

All of our Receivers fit into the handsome wooden Console illustrated. Into the bottom compartment can be fitted the Batteries or a Dynamic Speaker

PRICE - - - - £11/15/-

(Cabinet only.)

*All Models Illustrated are mounted on steel Chassis, and are housed in handsome Steel Cabinets, finished two-tone Brown, with Golden High-lights, They are equipped with Beautiful Old Gold escutcheons, and are all essentially "one-dial control" machines.*

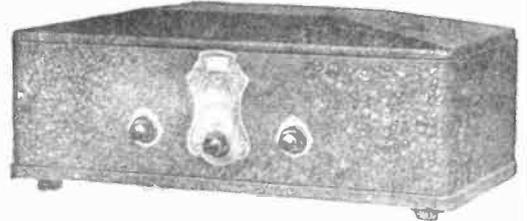


### Stromberg-Carlson Treasure Chest BATTERY 3.

Gives a rare opportunity to people of slender means to own a quality Receiver, housed in a handsome steel cabinet, which is of the same design and finish as our dearest model.

Price, £8/10/-

(Batteries, valves, and speaker extra.)



### Stromberg-Carlson Treasure Chest ALL ELECTRIC 3.

(\*4 Valves in all—see footnote.)

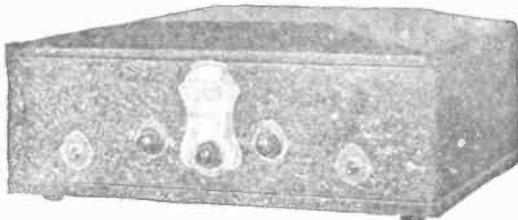
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**\*IMPORTANT.**—All electric sets require an additional valve for purely current rectifying purposes. Take notice that some manufacturers advertise "Electric three" with only 3 valves in all or the "Electric four" with only 4 valves in all, the former is really only a 2 valve receiver and the latter a 3.

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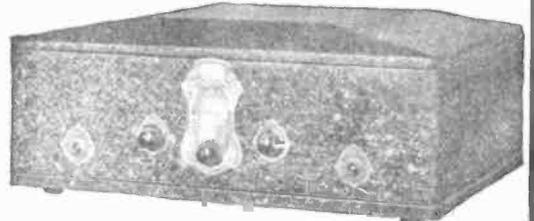
(\*7 Valves in all—see footnote.)

No Batteries—you simply plug into your electric light socket. Specially developed for 1929-30 trade. Similar in design to our "Battery Six," and giving equally gratifying results. It is the Commonwealth's leading all-electric six.

Price, £35.

(Valves and speaker extra.)

**\*IMPORTANT.** All Electric sets require an additional valve for purely current rectifying purposes. Take notice that some manufacturers advertise "Electric Six" with only six valves in all or the "Electric Seven" with only seven valves in all, the former is really only a 5 valve receiver and the latter a 6.



### Stromberg-Carlson Treasure Chest BATTERY 6.

Specially designed for 1929-30. It is a super-power receiver, meeting the Australian country demands for Daylight-Reception, and low battery consumption. It is replete with filtering devices, making for unsurpassed clarity of tone. Fitted with Jewell voltmeter panel.

Price, £28

(Batteries, valves, speaker, and voltmeter extra.)

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FACTORIES: 76 WILLIAM ST. and 86 CROWN ST., SYDNEY.

# New A.B.C. WILL OPEN WITH GALA WEEK

*The successful tenderers for the National Broadcasting Service have moved rapidly towards the organisation of the new programmes. In between visits to Melbourne, Mr. Stuart Doyle has made the statements published below.*



Mr. Oswald Anderson, who has been appointed general manager for N.S.W. for the A.B.C.

of broadcasting; thirdly, of course, the Government, which has a strong supervisory power over our activities.

"I feel convinced that we will be able to satisfy all three sections.

### ARTISTS FROM ABROAD

"The company is in cable communication with the British Broadcasting Corporation for the purpose of finalising arrangements for the experimental importation of a few of their leading artists, and as soon as plans are finalised particulars will be published of who these artists will be.

"The directors are not desirous of substituting generally imported British artists for local artists, but feel that an interchange of talent would be helpful, as tending to create new ideas and a new outlook on broadcasting performances generally."

Mr Stuart Doyle and Sir Benjamin Fuller are spending all their time in each of Sydney and Melbourne, until the services are established, and are in close touch with the Government in all their activities.

### TRADE INTERESTED

ON Tuesday Mr Doyle on behalf of the Australian Broadcasting Company, addressed the members of the Electrical and Radio Development Association at Wingell House and placed before them the general policy of the company, and their desire to co-operate in the closest possible way with the traders as a whole.

The result of this interview has been the creation of a goodwill between the various trading organisations and the Australian Broadcasting Company as many of their problems are in common and it is thought that the close harmony that now exists will tend greatly to uplift broadcasting and increase trade.

It is understood that strong efforts will be made by the various retailers and members of the trade to launch a drive for the sale of sets and equipment, prior to and during the first period of the new broadcasting programmes.

### GALA WEEK

It has been decided that the Gala Week will not synchronise with the date of taking over of the stations. It is obviously necessary for the new proprietors to organise their stations thoroughly, and approximately one week after taking over the second station in each State a big Gala Week will be launched, and this promises to be, accord-

ing to Mr. Doyle, something sensational, phenomenal and unique in broadcasting annals.

Nevertheless programmes will immediately be reorganised when the stations first come under control of the new company, and improvements, Mr. Doyle is of opinion, will be noticed by listeners-in at once.

"I am pleased to notice," Mr Doyle said, "that even the 'B' Class Stations are increasing their activity and efficiency in supplying the wants of listeners-in. I would like all broadcasting stations to feel that the Australian Broadcasting Co. will do anything in its power to assist improved services from every direction, which is the aspiration of every right-thinking person engaged in the industry."

Another announcement has been made, as follows:—

### CALL FOR BROADCASTING ARTISTS

MR. STUART F. DOYLE, chairman of the Australian Broadcasting Company, the successful tenderers for the National Broadcasting Service, on behalf of his co-directors, Sir Benjamin Fuller and Mr. Frank Albert, announces that in the whole of the Metropolitan Press of Sydney and Melbourne, and subsequently in other States, will be published forms (See page 15 this week's "Wireless Weekly") enabling artists of all description to register themselves for service over the air in accordance with the new broad-



Mr. H. F. Williams, assistant general manager for the N.S.W.

THE organisation of the Australian Broadcasting Company is proceeding rapidly. Mr. Oswald Anderson, former manager of the New South Wales Broadcasting Company Limited has been appointed New South Wales manager for the new concern. M. H. F. Williams has been appointed assistant manager to Mr. Anderson. We understand that many further appointments are being considered; and that announcements will be made very soon.

Mr Stuart F. Doyle, chairman of the Australian Broadcasting Company on behalf of his co-directors, Sir Benjamin Fuller, Mr. John Fuller and Mr. Frank Albert, has supplied the following information with reference to the organisation of his company:

"Two lengthy conferences have been held in Melbourne with Mr. Brown (Director-General, Postmaster-General's Department) and all outstanding points in connection with the inauguration of the services in Sydney and Melbourne have been settled.

"The directors of the company are busily engaged in organising the personnel and there is every indication that many of the well-known figures in the broadcasting work will be engaged actively in the affairs of the new company.

"We are of opinion from a careful survey in every department of broadcasting, that our early optimistic outlook will be quite justified, and we feel convinced that the programmes we will offer, and the changes in methods which we will introduce, will generally meet with the approval of listeners-in."

### THREE CONDITIONS

"We realise that we have three sets of conditions to meet, and these are:—First and foremost the pleasing of the listening-in public; secondly, the members of the trade whose prosperity depends upon the calibre

casting service which the company is introducing next month.

The joint firms of Union Theatres Ltd., Pullers Theatres Ltd., and J. Albert and Son have always under contract, approximately between two and three hundred artists of high standing, but, it is explained that the directors have no intention of using these artists as the whole force of broadcasting. On the contrary, it will merely be a nucleus of their activities, and will be introduced from time to time, merely on a basis of absolute efficiency and suitability.

The directors feel that opportunities offer for much undiscovered talent in Australia, which, while not always suitable for concert or stage work, nevertheless register admirably for broadcasting. It is not generally known that some artists most successful on the stage and concert platforms register indifferently on the air, and that frequently artists not necessarily having a commanding stage appearance are excellent broadcast artists. It is the comparatively small and clear voice which gives the most pleasure to listeners-in.

"It is the sincere desire of the directors," continued Mr. Doyle, "to secure registered in the books of the Australian Broadcasting Company the names and particulars of every artist of merit, as it is felt that in the future activities of the National Broadcasting Service, going on the air and serving the community as a whole, will be the highest aspiration of every artist in Australia."

## THE MOST INTERESTING EXPERIENCE

**B**ASIL KIRKE'S story of mistaken identity was voted the most interesting experience by listeners to the competition on June 17. Next in order of popular vote were C. N. Baeyer, C. R. Hall, P. Conigrave, "The Storyteller," "Bringa."

More than a thousand listeners sent in coupons, and many more testified to the interest taken in the talks of the competitors.

Twelve coupons correctly listing the talkers in the order of their



popularity were received. Out of these was drawn that of Mr. C. F. Cunningham, "St. Omer," Farlo, Goulburn, who wins the prize of £3 offered by "Wireless Weekly."

## The First Year of the 2BL W.A.S.A.



By  
**GWEN VARLEY**

**THE 2BL Women's Amateur Sports Association** began on April 20 last year, at the Hotel Australia; 200 women were present.

Officers were elected, as follow:—  
President, Mrs. Roland Conway; vice-presidents, Mesdames Leslie Brittain, L. C. Norton, Robinson, and Miss Jean Mills;

honorary treasurer, Mrs. Otto Raz; honorary secretary, Miss Gwen Varley. Looking back on the year's activities, I can only say that I am not only pleased, but astonished, that the association has progressed so far in so short a time. It augurs well for the future.

I believe our association is unique—it is the only women's radio sports association in the world. It caters definitely for the woman in the home—the hard-working wife and mother, who hitherto has thrown in her lot to comfort and encourage the breadwinner, or to pacify the peevish child. With radio, we open the gates of the world to her. At last she is coming to the fore. With radio comes a new health, a new spirit—in fact, a new home. The work that was a drudgery becomes a pleasure. The household gains, rather than loses by her few hours adventuring into the outer world of feminine affairs.

For over a year we have had our regular session from 2BL—11-11.30 every morning. Generally, I talk for about fifteen minutes on sports and health matters; and then give the session over to one of the many brilliant women speakers on women's subjects whom we have been able to interest in our activities. The series of talks given, and individual subjects treated, will show the wide range of our appeal:—

### SERIES OF TALKS.

- Mrs. Albert Littlejohn. Citizenship
- Miss Janet Mitchell . Thrift.
- Miss Lorna Byrne . . . . . Women in the country.
- Mrs. Gwen Spencer . . . . . Books to read.
- Mrs. M. Scott . . . . . Value of good literature.
- Miss Beryl Mills . . . . . "Miss Australia's Experiences."
- Mrs. Helena Lowes . . . . . Telepathy.
- Mrs. V. M'Kee . . . . . Art.
- Miss R. V. Marks . . . . . My travels abroad.
- Mrs. L. C. Norton . . . . . Pitfalls over home confectionery and needlecraft.

### INDIVIDUAL SUBJECTS.

- Miss Boulnois . . . . . A flight to Paris.
- Mrs. Birley Griffin . . . . . Home architecture.
- Mrs. A. V. Roberts . . . . . Pan-Pacific Conference.
- Mrs. A. G. Thomas . . . . . My wanderings abroad.
- Miss Rivett . . . . . Children's libraries.
- Miss Crouther . . . . . Poetry speaking.
- (Melbourne)
- Miss Isobel M'Donnogh . . . . . The story of the production of my film picture.
- Miss Kane . . . . . Music.
- Mrs. Price Conigrave . . . . . A week in Samarai.
- (series)
- Mrs. Mary Gilmour . . . . . A reading of verse of Aborigines.
- Miss J. Raynor . . . . . Dramatic art.
- Miss Elizabeth Plummer . . . . . Barnado homes.
- Miss A. Fitzpatrick . . . . . Country Women's Association.
- Mrs. Glandville . . . . . Life in an Eastern Harem.
- Miss de Havilland . . . . . Round the world in a baby car.
- Mrs. Henry Buck . . . . . Children's poems.

The Sports Session has created a great enthusiasm for tennis among our listeners. Twelve 2BL tennis clubs have been established in the following suburbs:—

Coogee, Mosman, Ashfield, Bellevue Hill, Rockdale, Chatswood, Waverley, Maroubra, Manly, Strathfield, Balgowlah, and Bexley. With guiding radio lectures, and under the tuition of professional coaches, members of

these clubs have developed into "crack" graceful players. Exhibitions by inter-State players are frequently given, to encourage a high standard of play. Fees are approximately 6/ a month. Two all-day tournaments were held last year, and money was raised for the Women's Hospital and Sports Ball. Ninety women competed in a novelty American tournament at Rushcutters Bay; and on May 21 this year, the 2BL Women's Tennis Competition was launched. Twenty teams, including one hundred players (team of four and one emergency) played every week.

Social activities have sprung from these clubs, and they have joined in with theatre parties and musical afternoons organised by the association. Besides, there was a demand for juvenile clubs; and Saturday morning clubs have been arranged in Manly, Strathfield, Rockdale, and Coogee, where children receive instruction and advice from expert teachers. The membership is approximately one hundred. Matches between clubs have been arranged.

Last summer we arranged swimming clubs at the Domain, Coogee, Balmoral, and Sans Souci. We had about eighty members; and arranged with professional teachers in swimming and diving to give lessons. Fees were about 1/8 a week. Many non-swimmers who thought they were too old to learn are now like fishes in the water. At least, not just now. Too cold. But a tremendous enrolment is expected next summer.

We have even arranged a 2BL Golf Club, which meets every Wednesday afternoon, at Moore Park. The membership is about 30; and arrangements have been made for beginners to receive tuition from professionals in the city, and then to practise on the links each week.

In all our sports activities we have made sure that our members shall receive expert tuition. We believe that there is only one way to swing a racket or a club, or to do the crawl. And our members should know that one way and practise it.

For the winter months we have arranged dancing classes, which are held twice weekly. Membership is over 60, and fees are 3/ a lesson. These classes have become very popular, and the ex-non-dancers lose their self-consciousness as soon as they get on the floor.

# WATCH FOR THESE NEW FEATURES

## Government House Musicale

**T**O-NIGHT, Friday, is the night when a musicale will be transmitted from Government House. The programme is managed by Mr. Chapple. The artists are Madame Sonya Michell, Elise Steele, violinist, and Ernest M'Kinlay, tenor.

An interesting part of Mme. Michell's programme is the Rhapsody by Dohnanyi, the well-known Hungarian composer, pianist, and conductor, a very dramatic piece of writing.

Madame Michell, whose residence and study in Budapest have well qualified her to enter into the spirit of the Hungarian people, plays this seldom-heard number with great depth of understanding. Dohnanyi is still living. He was a pupil of Brahms.

Also "Evening in Seville," by the young German composer, Niemann, is an impressionistic sketch which is representative of the best type of modern composition, and the "Etude Orientale" of Theodor Szanto, which is formed on an old Chinese theme. It is all octaves, and is played entirely on the black keys. It was written for and dedicated to Busoni, whose octave technique was considered very remarkable. Szanto is well known in his native Hungary and elsewhere as a pianist. He is a close friend of Madame Michell. This number is being played for the first time in Australia.

Ernest M'Kinlay will sing an aria from "Le Cid" of Massenet; and "The Dream," from "Manon." And "Jeune Fillette," a cheeky French composition, by Wackerlin. His Maori group is made up of songs composed by Alfred Hill; Song of the Locust. He Waiaata Aroha, and Waiaata Maori.

Elise Steele will play the old-English "Siciliano and Gigue" of Arne, the "Dance of Princess Newsidler," arranged by Harold Craxton, a fine English accompanist, whose only indiscretion is that he is still living ignored to-day, however, he shall be famous in later years. Then there will be a very beautiful Nocturne by Boulanger, and two arrangements of the "Chant de Rozane" (Tyzmanowski-Kochanski). And there will also be the Dance Espagnol by de Falla, arranged by Mr. Kreisler.

## Lithgow Band

**O**N June 30, through 2FC, a concert programme arranged by the Lithgow Municipal Band will be broadcast from the Trades Hall. The Lithgow local artists contributing are James Simpson, Mrs. Harold Josephs, Mrs. Robert Arthur Brouff, Josiah Prior, Robert Nicholson, Mrs. Thomas Simon, John Tougher, Mrs. Bertram V. Lean, Rita Lawless, Mrs. Harold Cox (official accompanist), Charles Lewins (conductor).

The following night, Alfred Cunningham is collaborating with the Metropolitan Band in a programme of British marching songs. Such well-known numbers as "Hearts of Oak," "Rule Britannia," "Boys of the Old Brigade," "The Girl I Left Behind Me," "The British Grenadiers," and "The Vicar of Bray" will be given, with annotations by Captain Fred Aarons.

## Dorothy Helmrich

**D**OROTHY HELMRICH's recital on July 3, to be broadcast through 2FC, will offer music-lovers one of the best broadcasts of this kind ever undertaken. Miss Helmrich is a delightful artist, with a world-wide reputation. Her repertoire is extensive and unusual, and listeners may anticipate with pleasure the programme she is arranging for this evening.

## Mr. Varna

**T**HROUGH 2BL service on Wednesday night, July 3, the H. W. Varna Co. will present the domestic comedy, "Tea for Three." This will be Mr. Varna's last production before taking a well-earned holiday.

## Independence Day

**A**MERICA'S Day of Independence will be honored through 2BL service on the morning of July 4, when an address will be given by the American Consul-General (Mr. Lawton). On the same evening, the piano-forte recital by Laurence Godfrey Smith, through 2FC, will feature music appropriate to this day.

## No Church!

**O**N Sunday evening, July 7, there will be no church service broadcast through 2BL. On this occasion the Sydney Harmonic

Choir, conducted by William Bourne, will render a programme of "Eliar" music. There will also be well-known hymns with organ accompaniment and instrumental and vocal numbers by the Empire Trio, in association with Miss Le Brun Brown.

## Bohemia!

**A**N hour in Bohemia! At 9.30 on July 9 will commence a novel programme, consisting ostensibly of what our artists do after the studio closes down for the night. Impersonations will be given by Mr. G. Ven Barnett and other 2BL well known personalities, and a hearty laugh is promised those listeners who are curious enough to want to know what the microphone does after the announcer's "Good night."

## Apollo Club

**T**HE Royal Apollo Club will hold its concert at the Conservatorium on the evening of July 10, and the whole performance will be broadcast through 2FC service. The artists assisting are, Muriel Barlow, Ernest M'Kinlay, and Carl Budden-Morris. The following night, July 11, 2BL listeners will have the opportunity of hearing Lucille Bruntnell's studio production of "My Lady's Dress."

## Last Night

**S**TATION 2FC's final night will be given on July 18. On this occasion there will be an all-star programme, featuring trio numbers by Alfred Cunningham, Lillian Gibson, Charles Nicls; and other artists who have been associated with 2FC since its inception will also contribute. Through 2BL, on the same evening, the complete concert by the Strathfield Music Club will be broadcast, the artists assisting are Alexander Sverjensky, Jules Van der Klei, Lloyd Davies, End Conley, Constance Burke.

## And Final Night!

**B**Y arrangement with J. C. Williamson, Ltd., the full broadcast of "The Desert Song" will be given through 2BL on July 20, 2BL's final night. Those artists who have been associated with 2BL since the beginning will contribute to the programme.

## 3LO Community Singing Goes Over to 3DB

**O**NE of the outstanding features of the Melbourne broadcasting services—3LO and 3AR—is the attention to community singing. Those stations—particularly 3LO—have turned their attention to many matters not intimately connected with broadcasting, and have been successful to a marked degree in their efforts.

A year ago, or thereabouts, no one spoke about community singing; now the subject is in practically every mouth. Certainly there were some brave and spasmodic efforts to make the idea popular, but it was not until the broadcasting organisation took it up that any real progress was made. The results of those efforts are seen every day when community singing is carried on.

Many people wondered what connection there could be between community singing and carrying on a broadcasting service. The two were regarded as distinct fields of endeavor and the opinion was expressed that the broadcasting company should not take up the matter. There were also a few who

were small-minded enough to suggest that the company had some ulterior motive to serve in conducting the singing services, and would soon drop them.

Now, it is manifest that anything that tends to develop public appreciation of music is a good thing for the broadcasting company to assist. Such laudable objects as the fostering of musical talent in the University is one to which broadcasting could direct its efforts. And well has the company recognised the fact and acted on the impulse to extend the usefulness of its service. A broadcasting organisation that takes on a responsibility of that character is worthy of all praise, for it is performing a service to the public.

Likewise, in encouraging people to give more attention to popular music, has broadcasting proved that it can be a community service of the greatest value. Even if the singing of old-time melodies and ditties is not actually assisting in developing musical taste, it is a good thing to get people to sing. And

to get thousands of people to come together two and three times a week for the purpose of singing the old songs—and the new ones, too—is a splendid thing.

The organisers of the 3LO community singing services must feel gratified at the results of their endeavors, and the directors of station 3DB, which will be taking over this section of the services from 3LO, are to be congratulated for their enterprise. A visit to the theatre on Monday or Thursday will convince anyone that not only is the idea a meritorious one, but also it is a convincing reply to the question—do the people really want it?

The value of the service is not confined to the two thousand and more who regularly fill the theatre. The number of listeners who are unable to attend, but who can, and do, participate at a distance is surprisingly great. One does not need to think long to visualise the effect in hospitals, homes for the aged and infirm, as well as in private homes. They may not join in the singing round the loud speaker, but they can, and do, enjoy the singing, and wistfully dwell on the many memories the singing of old-time melodies brings up.

Miss Leonore Gotsch and  
Madame Sonya Michell

# People in the Programmes



## Miss Leonore Gotsch

**M**ISS LEONORE GOTSCH inherited the singing voice of her Scottish mother, and began singing in Sydney under—just listen to this—Mav-ro-g-ad-at-o. Pronounced Mavrogadato, for short. What's in a name, dear friends? Well, there is a great difference between Mavrogadato and, say, Napoleon Buonoparte. Mavrogadato trained Miss Gotsch to sing. Napoleon didn't have anything to do with it. Therefore, let us not treat lightly the name, Mavrogadato. Its owner did something Napoleon couldn't do. When we thank heaven for Miss Gotsch, let us also remember the name, Mavrogadato.

Miss Gotsch soon decided to travel; because she wanted to learn how to sing beautiful songs beautifully—even more beautifully than our neighbor's daughter's rendering of "Becos." So she went over the foaming sea to Germany, where they teach people to sing like that; and she stayed in Germany for six years, visiting Dessau and Leipzig; and studying German lieder and the classic and modern schools of composers. Mozart she studied, and Haydn and Wagner; and among the moderns, Wolf, Strauss, Reger, and Heise. Always the lighter works of these composers; because Miss Gotsch is what is known as a coloratura soprano, which we shall explain later on.

She returned to Sydney, and when the New South Wales Conservatorium of Music was opening, Miss Gotsch won the opening scholarship. Verbrugghen—our dear old Ongree—was one of the judges, and commended her talents. This victory entitled her to a three-year scholarship at the Conservatorium.

Miss Gotsch became known in the Sydney concert world as a singer whose artistic interpretation could be relied on. When Miss Gotsch sings a funeral march—that is, if Miss Gotsch ever does sing a funeral march—you can be sure that all her audience will bare their heads and give way to bitter weepings. Of course, there are some people who don't know they should bare their heads to funerals; but these people, on hearing Miss Gotsch sing a funeral march, will wish they knew, anyhow.

Similarly, when Miss Gotsch sings a song of happiness and joy and gladness, even editors have been known to relax and smile sweetly—that is, as nearly sweetly as it is possible for editors to smile.

What we mean is, Miss Gotsch can make almost anyone understand what she is driving at, and what the composer really did mean when he put down those uncertain crotchets and minims and semibreves on paper. She has the power of creating the atmosphere of her song; and whether she sings from Schubert or Mozart or Wagner or any of these wild birds, she brings to us an understanding of their ideas wrapped up neatly in the atmosphere of their conceptions.

Her voice is unusually young-sounding. It sounds much younger than the average girl's voice, and can ascend all the way up to G if it wants to. We particularly like to hear Miss Gotsch on those high notes. They come so clearly through our loud-speaker, seemingly without effort or difficulty. We just sit and listen, and think how beautiful that is. We wonder how on earth she does it. We marvel at someone else doing something we couldn't do ourselves.

And Miss Gotsch will come down from the studio and say "How did the song go, boy?" speaking impetuously, in her curious, clipped, schoolgirl voice. But you can never tell Miss Gotsch how the song went. She is flown away after a new idea before you can think up the charming answer. "I didn't like the studio to-night. There seemed to be something wrong with it. Is there anything wrong with it? You know, I said to Vern, before we went on, 'I really can't sing if you will persist in wearing that flower in your buttonhole.' He said something ridiculous. Big fool!" Then Mr. G. Vern Barnett comes in. "I was just saying what a big fool you are, Vern." "Leonore, I am honored by your condescension, and your—er—restraint. You MIGHT have said that I was an idiot." "I will some day," replies the indomitable small singer

She hasn't said boo to an Australian audience yet; but the few—the-er-esoteric—who have heard her have said, "Wow!"

One Sydney critic said, "As soon as her fingers touch the keyboard the piano begins to sing." This is called *bel canto* by the people who understand musical cant.

Madame Michell's appeal to music-lovers has its source in a deeply artistic nature, an individuality which draws its inspiration, not from conventions and traditions, but from independent understanding of the best in art. Thence it flows onwards, enriched—not destroyed, as you thought it would be, you silly ass—by intimate association with the greatest living masters in Vienna (capital of Austria), Budapest (capital of Jugo-Slavia), Berlin (capital of Germany), and Florence (on the Dee).

Her programmes will abound in numbers new to Australian audiences. To many the "moderns" are an abomination. They haven't heard Mme. Michell play them. If there is music in one of the new compositions she finds it and brings it out; if not she doesn't play it. This sounds sensible. Her interpretations of Ravel, de Falla, de Severac, Cyril Scott, Szante, and Debussy are no less pleasing than her renditions of Paradies, Leonardo Leo, Scarlatti, Bach, and Chopin.

One of the most-sought-after numbers in Mme. Michell's repertoire is the seldom-heard Concerto of Chaminade. Public interest in this composition has frequently attained to a high pitch, not only because Mme. M. displays completeness of understanding in playing it; but because the striking resemblance of this young artiste to the woman composer in feature, stature, coloring, and pianistic style, has been commented on by friends of both. It would need something like that to arouse Public Interest

in a Concerto. Chaminade, says Mme. Michell, should not be judged by the light pieces with which her name is most frequently associated, but rather, by this vigorous and sonorous Concerto, with its richly Oriental themes and fine structural developments. 'Oo the 'ell is this Chaminade, anyway?

We don't know. Madame Michell has learnt the true secret of the gipsy music



## Madame Sonya Michell

**M**ADAME SONYA MICHELL, the pianiste, who is to broadcast from Government House over Station 2FC to-night, Friday, is well known in Europe and America. London and Hollywood critics have found in her music a pleasing combination of youth and maturity, of feminine subtlety and masculine virility; which shows they have analytical minds.

of Eastern Europe at first hand. To this end she lived among them on the heights above the Danube for months at a time, until she was prepared to present an absolutely authentic interpretation of the dances and Rhapsodies of Liszt, Brahms, and Dohnanyi. As for the genuine spirit of Russian music, Mme. Michell learned that upon the knee of her mother, the well-known Russian singer, Elena Prosson.

How  
to Make  
an

# INDOOR PUSHER 'PLANE



Tune in to the "Pilot's" Aviation Session from 2BL next Wednesday, at 6.20, and hear about this model.

To launch the indoor pusher, hold the motor stick in your right hand, and the wound-up propeller in your left. Don't throw the plane! Just release the propeller, and let it sail away from your hand.

Your tips are now about 1 1/2 inches longer than they need be. Cut them down to the right size and glue them to the spars. Next, cut and glue on your seven bamboo ribs, according to the drawing. That's easy. Remember that aero-glue that comes in your kit dries quickly if exposed to the air. Keep your bottle corked at all times when you're not actually using it.

Your wing frame, now completed, should be coated with "Cellaero" solution to strengthen it, and allowed to dry.

Now cover your wing frame with "Cellaero" tissue. First of all, paint the centre rib with Cellaero solution. Lay your tissue on it. Then work outward from the centre rib, successively painting and covering each rib. When you've finished, trim the paper close, and paint the edges with Cellaero solution to stick them to the frame.

Nothing hard about it so far, is there? Just takes careful work.

Your motor stick, or fuselage, shown in Figure III., is a piece of balsa, or clear pine, 3-16-inch square by 15 inches long. To hold your wing in place upon the motor stick, use a single rubber band both of whose strands stretch over the top of the wing

**M**ODEL aviators who are learning to build flying models through "Wireless Weekly" have cut their teeth on the Baby R.O.G.—a sturdy little ship with 12-inch wingspread that will fly from 30 to 50 seconds. In this article are the plans and instructions for the indoor pusher, that will fly over two minutes. It's called "pusher" because its propeller is at the rear end of the fuselage, pushing the ship forward.

The indoor pusher has no landing gear. You launch it from your hand. It is larger than the Baby R.O.G., and you need a bigger room in which to fly it. Pusher propellers are used on some of the large ships today. The first plane that crossed the Atlantic, the big N.O.4, had both pusher and tractor propellers.

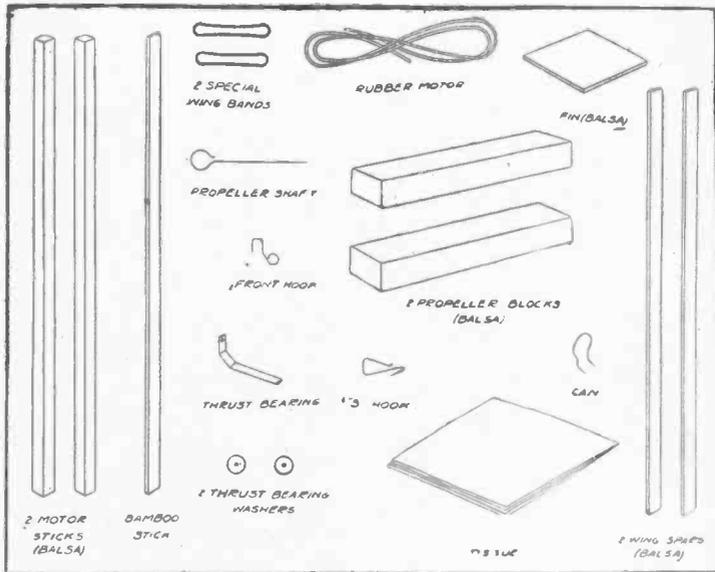
You've learned, in building the R.O.G., that the best aeroplane models are made of extremely light and tough wood. Cellaero tissue, bamboo, and piano wire. Since these materials are rather hard to secure, the Boy Scouts' Association, 258 George Street, has arranged to supply you with kits, to be sold at cost, containing enough material to build one plane, allowing for some waste.

Before you start actual construction, study the drawing. This shows you the assembled plane with its five major parts, including the elevator, wing, motor stick, fin, and propeller. Be sure that you understand, as far as possible, the purpose of every part.

Start with the wing, shown in Figure II. To make your two spars, take a single piece of Balsa or clear pine, whichever is obtainable, 1-16th by 3-8th by 13 1/2 inches; heat the centre of it over the spout of a tea kettle, and bend it to the angle shown in Figure II. After you have bent it split it down the middle. Do this either with a sharp knife or a safety razor blade. Finish each spar to exactly the dimensions in the drawing, 3-32 wide by 1-16 thick. Half cut away, or lap, the ends, as shown at the upper left-hand corner of Figure II., to receive the bamboo wing tips.

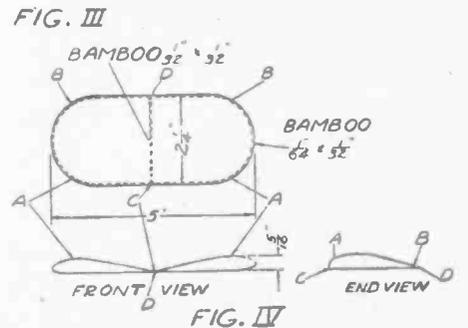
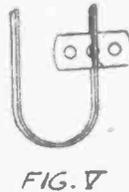
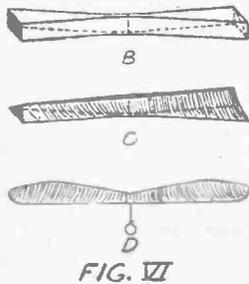
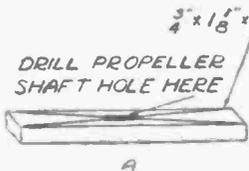
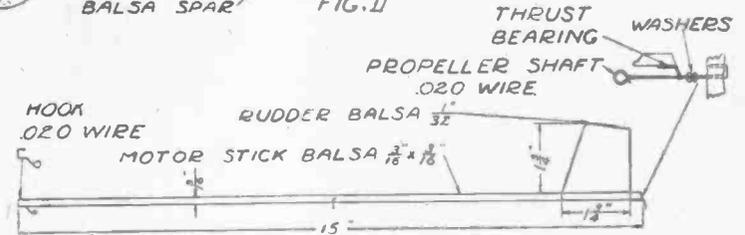
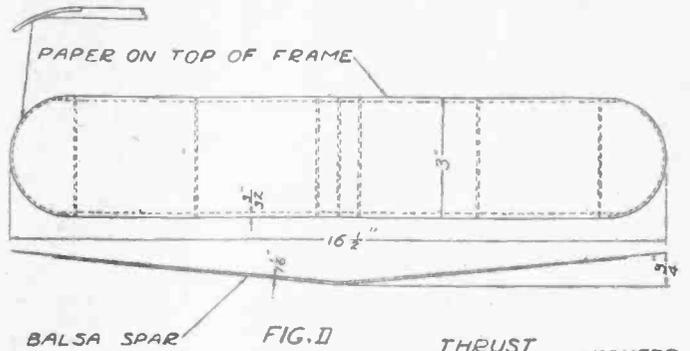
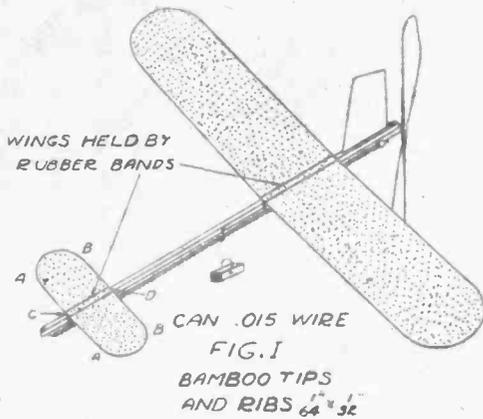
For your wing tips finish a 7-inch strip of bamboo to exactly 1-32-inch thickness and 1-16-inch width. Since the shiny side of the bamboo is strongest, you may split off the under part and throw it away. Bend your strip over an open flame to the curve shown in the drawing, and, after it is bent, split it down the middle to form your two tips. Bending the two tips in one piece insures your getting the same curve on each tip.

Splitting bamboo is tricky. The split tends to work toward the edge. When it does that, start your knife again on the original line. Not hard at all when you're used to it.



All the parts you will need for the Indoor Pusher.

# INDOOR PUSHER



and whose ends pass under the motor stick. This holds the motor stick tight to the bottom of the wing. The drawing—Figure I—makes this clear.

Figure III shows you the motor stick with the rudder, or fin, attached and the same drawing shows you how to bend the front hook from .020 music wire. Glue the front hook to the front end of the motor stick (in the drawing this is the left end), as shown in Figure III. Your rear bearing is the small flattened brad with a hole large enough to receive the propeller shaft drilled through it. In the small drawing above the rear end of Figure III, this brad is called the "thrust bearing." It is glued to the rear end of the motor stick (in the drawing this is the right end), as shown in Figure III. If you find it difficult to obtain a drilled thrust bearing, get your manual training teacher to help you. You can get a serviceable bearing by flattening a little brad, not longer than 3/8-inch, and punching a hole in it near one end with a phonograph needle.

The can, bent from .015 music wire, is clearly shown in Figure 1, just below the motor stick. It is glued to the centre of the

motor stick, as shown in Figures 1 and 3.

At the rear end of the motor stick is the fin. This is made from a flat piece of wood 1-3/2 inch thick. It is glued vertically to the top of the motor stick, as shown in Figure 3. Be sure, too, that it is vertical. If it isn't it will affect the performance of the 'plane.

The elevator, shown in Figure 4, is probably the hardest part of the 'plane to construct. And it is just about the most important.

Note, in Figure 1, how the elevator goes on the front end of the motor stick. Your study of Figure 4 will show that the front or leading edge of the elevator is 5-16 inch higher at the tips (marked A) than the rear or trailing edge (marked B), except at the centre, where it rests on the stick. This centre part is marked C and D.

Finish the bamboo for the frame of the elevator to 1-16 inch square, using as long a strip as you have. The best method of shaping it is to bend the strip to form one-half the elevator, as Figure 5 indicates. Bend the strip over an open flame, just as you did the wing tips.

After the half has been bent to the proper shape you can split it into two pieces. With a razor blade start first at one end and then

the other, splitting the strip towards the middle. Figure 5 shows you just how it is done. When these halves have been trimmed to 1-3/2 inch square and well sanded, the corresponding ends can be cemented together. While glueing the halves together you may also glue the centre rib in place.

Your next step is to bend the front edge, marked ACA in the drawing, to form a flat V, with the two points A 5-16 inch higher than the point C. Take care with this, because the shape of the elevator frame is important.

When you have the frame properly bent cover it with tissue. Attach the elevator to the motor stick with a rubber band, just as you did with the wing.

Now you're ready to carve the propeller from a block 3/4 by 1-1/8 by 7 inches. Square and sand the block on all sides. Draw diagonals on the two 1-1/8 by 7 inch surfaces, as shown in "A," Figure 6, and push a pin through the intersection of the diagonals to make the hole for your propeller shaft. Now carve the block, following the four steps shown in the drawings. First, carve to the long diagonals to the shape of "B," Figure 6. Then draw the end diagonals shown in "B"—drawing the diagonal on each end to opposite corners. Carve the block to the shape of "C," and, finally, finish to "D." Finish the propeller to 1-3/2 inch thickness, except at the hub, where it should be about 1-16.

The propeller shaft is shown attached to the propeller in Figure 6, and is shown more in detail in the drawing above the right end of Figure 3. It is bent from a piece of .02 music wire, about 3 inches long. One end is passed through the hole in the hub of the propeller, bent into a square U, and glued in place. Slip on two small bronze washers next to the hub to prevent friction between the bearing and the propeller.

Your power is obtained from a strand of 1-8 inch flat rubber 30 inches long. The two ends of this are tied to form a 15-inch band, one end of which is hooked over the end of the propeller shaft, and the other end (the end with the knot) over the front hook. The strands pass through the can. The rubber bands should be long enough to allow about an inch of slack when it is hooked in place.

You are ready now to try out your second plane—the indoor pusher. Remember that it flies with the small end—the elevator end—to the front. Give the propeller about 300 turns, and let the plane sail from your hands. If it misbehaves badly, you've probably been careless in finishing your parts to the correct dimensions. Perhaps you have not set your fin correctly upon the motor stick. Maybe your elevator doesn't have enough lift. In that case, you will want to build another ship, profiting by your experience and working more carefully. If your plane climbs too rapidly, set the wing back toward the propeller. If it climbs too slowly set the wing forward. Once you have the proper adjustment your ship will give you a smooth, steady flight that will delight you and astonish your friends.

(Look for next week's article. It tells you how to build a winder that will save you the task of winding your motor by hand, and it will give you more tips on how to experiment with and improve your planes. And the week after that the indoor endurance tractor—the plane that holds the world's indoor record of 173 seconds!)

## QUESTIONS and ANSWERS

Questions, questions, and still more questions!

They are coming in every day to the "Pilot." They come from every corner of Australia; they come from grown men as well as boys.

Some of them are good questions, some of them are not. Some of them any boy could answer for himself, if he stopped to think for an instant. Some of them couldn't be answered with a book. Some of them no one can answer.

Any reader who can't answer his own questions, and can't find anyone to answer them for him, is welcome to write to the "Pilot," c/o ZBL.

### JUST A FEW

Here are the answers to some of the questions that have been troubling model aviators.

Q. How can I tell the bottle of ambroid cement in the kits from the bottle of banana oil?

A. The ambroid cement is a dark, heavy liquid, banana oil is comparatively thin and colorless.

Q. I have trouble in getting my ambroid cement to hold. It doesn't seem to have the strength it is supposed to have. Why is this?

Ambroid cement will hold if it is given time to set. Try it with two small pieces of wood. Be sure to cover the joint well with ambroid. Let it stand 25 minutes, and the two pieces will be firmly stuck together.

Q. My plane glides properly, but when I put it on the floor it will do nothing but run rapidly forward. What is the matter with it?

A. If you have followed instructions, and if you have not made your plane too heavy, your propeller is at fault. You may have one right hand and one left hand blade, or your propeller may not have sufficient pitch, or it may be too heavy. Both blades of the propeller should cut the air in the same way; the pitch will be correct if you follow the directions carefully; and your propeller is not too heavy if the blades are thin enough so that you can see light through them.

Q. My plane seems to have something wrong with it. When I launch it, it immediately climbs almost straight up in the air, where it stalls and falls back on its tail. Can you tell me what to do?



The instructions for building the indoor pusher tell you that the wing is held to the motor shaft by a single rubber band. If that statement puzzled you, glance at this picture. See how the single band holds two sticks together? Imagine that the upper stick is your wing and the lower the motor stick, and your bewilderment will be over.

A. Your plane has too much lift. You can correct this by putting the wing back toward the tail. If you have it as far back as possible, and you still have too much lift, try putting a paper clip on the front of the fuselage, or reduce the area of your stabiliser and elevator surface.

Here are a few specially answered for readers:—  
A.H. (Carlton), B.G. (Lithgow), A.M.A. (Drum-moyne): There are different methods; will publish later.

B.D. (Sans Souci), T.M. (Maitland), G.K. (Hamilton), B.Y. (Yanco): Q. What causes air pockets?  
A. (1) Ascending and descending air currents due to sun's heat. (2) Changes of wind. (3) Eddies in air stream set up by obstructions: e.g., hills, buildings, etc. Air pockets are found at all altitudes up to about 10,000ft. and are also found very close to the ground.

T.W. (Leichhardt): Q. What is the altitude record?  
A. Light planes 24,000ft. Greatest height, 42,000ft.  
B.C. (North Sydney), A.R. (Coff's Harbor), G.A. (Kogarah): Q. How many revolutions does an aeroplane propeller do per minute?  
A. Average 1800 r.p.m., racing, 2100 r.p.m., cruising, 1700 r.p.m. The number of revolutions depends on the type of engine.

# : AN AERONAUTICAL DICTIONARY :

**Model Aeroplane:** The term "model aeroplane" includes miniature aeroplanes built to fly, but not to carry a human being or any useful load, and also small aeroplanes built to resemble man-carrying ships, but not necessarily to fly. The several classifications applied to aeroplanes may be applied to model aeroplanes, for they may be

*The definitions below carry on the series of aviation intelligence tests begun last week.*

either landplanes or seaplanes, pushers or tractors, monoplanes or biplanes.

**Pusher:** An aeroplane which flies by means

of a propeller placed behind the wing. The propeller pushes the wing through the air rather than pulls it.

**Tractor:** An aeroplane whose propeller is placed in front of the wing so that it will pull the plane through the air.

**Monoplane:** An aeroplane equipped with a single large wing or airfoil as its chief means of support in the air. The monoplane has been used in distance flying by such aviators as Kingsford Smith, Ulm, and Lindbergh, because a single thick wing is more efficient—for the same wing area—than a greater number of thinner wings. It will lift more weight.

**Biplane:** An aeroplane equipped with two wings, one above the other, to support it in the air. The wings can be braced more efficiently than a single wing, and the wing surfaces are closer to the centre of the plane, so that the biplane is better adapted to speed and stunt flying than the monoplane.

**Triplane:** An aeroplane equipped with three wings, forming three horizontal or nearly horizontal surfaces, to support it in the air. Triplanes were used occasionally by the Germans in the World War because the wings could be rigidly braced to give great controllability and to permit high speed.

**Airfoil:** A wing-like structure, flat or curved, whose purpose is to cause forces to be exerted perpendicular to its surface by the dynamic action of the air stream through which it moves. This means, simply, that the airfoil is shaped so that the air it pushes out of the way will flow above and below it in such a way that the air below will push and the air above will pull upwards.

## MODEL AERO CLUBS

Since the first announcement of the proposed Model Aero Club was made in "Wireless Weekly," hundreds of readers and ZBL listeners have written to the "Pilot" regarding membership. As yet no definite move has been made, but interested Aero enthusiasts are invited to meet and discuss the matter. Here is a list of names and addresses of listeners who wish to get the club under way:—

- Stanley J. Rose, 39 Gibbs Street, Auburn.
- Stan. Bachelor, Crow's Nest House, Lane Cove Road, North Sydney.
- Don. Laugier, The Head Teacher, School No. 1622, Valencia, via Boisdale, Victoria.
- G. G. Greene, Springfield Street, Quilford.
- Jack Coltsau, Fawcett's Street, Kyogle.
- B. Mathers, 6 Wonsley Road, Mosman.
- David McGill, M'Kellar's Paddock, Lithgow.
- Bert Hughes, Chestnut Street, Wynnum South, Brisbane.
- T. Foley, Boundary Street, Kerang, Victoria.
- Vince Finn, 151 George Street, Waterloo.
- Harold Keogh, 46 Arthur Street, Randwick.
- Joe Cox, "Streetly," Laurel Street, Carramar, via Lidcombe.
- Ronald Edwards, "Kia-Ora," Rye Park, via Booroocra.
- H. R. Goldfinch, Star Radio and Electrical Supplies, Dawson Street, Strathbyn.
- Allan Matr, 34 Douglas Street, Dulwich Hill.
- A. C. Gates, 37 Edmund Street, Norwood, South Australia.
- V. Robinson, Jerseyville.

Get in touch with the listener nearest you, and talk over the proposed club.

# Wireless Weekly

Incorporating "Radio in Australia and New Zealand."

FRIDAY, JUNE 28, 1929.

## IN SEVEN YEARS

WITH this issue, WIRELESS WEEKLY begins its fourteenth volume. It is now a little more than seven years since it appeared as the first wireless journal in Australia.

At that time there was no broadcasting, 'phone transmission had recently arrived, and was displacing the familiar dots and dashes which had until then been the chief item on the listener's programme. There were still many thousands of people who had not heard of wireless, and many who would not believe it possible.

Looking back over the files, the reader must be amazed at the rapid and triumphant progress radio has made. Steadily week by week there has been reflected in the pages of WIRELESS WEEKLY every advance and development of the science which now ranks as one of the most powerful agents in the world.

The contents of these first few issues, with their meagre eight pages, would amuse the radio fan of to-day. The seriousness with which we discussed what we now know to be the simplest problems may seem ludicrous. But there is no doubt that those early issues constituted a landmark in Australian radio history. For the first time the ideas and views of the handful of amateur experimenters were articulated. Their number grew, and soon an insistent cry for a broadcasting station and their feats of international communication drew the attention of the general public.

Since those days broadcasting stations have appeared, programmes have been made continuous, and the world's best artists heard. Beam wireless has come, as well as short-wave international broadcasting, movie talkies, the transmission of still pictures, motion pictures, and elementary television. People only dreamt of these things as remote possibilities. Progress has far outstepped human forecast.

But this seven-year period has been no more than a prologue to the extraordinary promise of the future. Seven years hence, WIRELESS WEEKLY will be in its twenty-eighth volume. What new marvels will be discovered in the meantime?

# Shouldering the Responsibility

ONE of the precautions taken by the Federal Government in launching its new scheme of broadcasting is the institution of advisory boards. Although information as to the composition of the membership of the proposed boards and the location of the boards—whether in the capital cities only, or in country towns as well—has not been given, it is evident from the official statements that the boards are to be set up in the near future.

The idea is a shrewd one for the Government, as it will have not only the advantage of undoubted advice but also a convenient body, to whom the complaints can be passed on. An official opinion regarding the completeness or otherwise of the programmes may not satisfy disgruntled listeners, but if the opinion is backed up by the board the listeners will have no further satisfying grounds for complaint. Likewise the Government will be able to talk to the programme contractor with strengthened confidence when it is thought officially that the programmes are not up to the mark.

Some interesting complications are likely to arise, however, if there is a conflict of opinion between the Government Advisory Board and the board which the Union Theatres people, as programme contractors propose establishing. Such a conflict is not

unlikely, and the necessity for duplication of advice and supervision may have to be questioned. The Government Board may certainly be the more independent, but the private boards may be able to give advice and criticisms quite as useful and competent in the eyes of the public.

The Government boards or committees will be clothed with some authority over the contractor at least so it would seem from a reading of the tender conditions furnished to tenderers for the service. The extent of that authority is doubtful; the contractor will be required to take notice of the committee's recommendations, but if he finds that he is not disposed to carry out the recommendations the upshot will be interesting.

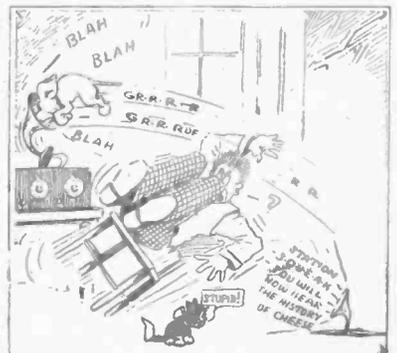
Many listeners will watch carefully for the announcement of the membership of the Government committees—and the contrac-

tors committees as well—as there are obvious pitfalls confronting the authority who selects the members. When one considers the diversity of interests and the conflict of ideas involved in sport, religion, music and education, he realises the difficulties that will have to be faced in the setting-up of a board or committee that at once will be reasonably representative of all interests concerned, and will command the confidence of the large body of listeners.

## TECHNICAL PROGRAMME

In another part of this issue will be found the first technical article from the pen of our new Technical Editor. It is a sort of prelude or introduction to modern broadcast reception and is the first of a series designed to clear up some of the very general misconceptions. In the coming issue Mr. Hull will treat the requirements for high quality radio reception and the present-day means of attaining it. It is planned, for the issue following that, to describe, in a wealth of detail, the first of the new series of receivers at present being developed by Mr. Hull and being built under his direction.

## THE FIRST SET - - - - No. 1



# THE SAFETY VALVE



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.

## Regenerative Interference

Dear Sir,—It is not my wish to complain of programmes or quality of transmission, as these subjects seem to fall for ample discussion in the "Safety Valve" columns, but I desire to draw attention to a note that may be found on every listener's license. Holders of licenses can easily read this, but for the benefit of those who do not hold licenses, it reads:—

"Apparatus operated under this license must not cause interference by means of regeneration with neighboring receivers. Interference is taking place if a continuous 'note' or 'whistle' is heard. If this 'note' or 'whistle' changes when the wave-length of the receiver is altered the cause of interference is in the receiver, and reaction must be reduced until no 'note' or 'whistle' is audible. If the 'note' or 'whistle' does not change, the interference is due to some external source."

This is a subject that should be treated in a more lengthy manner than is possible through the "Safety Valve" page, as it is a real annoyance, and can easily be remedied.

Yours, etc.,  
L. ROSENFELDT

Auburn

## More About 4QG

Dear Sir,—Congratulations on this issue of your magazine. Two articles have stung me into activity. Firstly, the very excellent article on the power amplifier, and, secondly, the letters in the "Safety Valve" page re 4QG.

No doubt, you will receive many letters of complaint re this station! It's funny why we have to appeal to you. Is there no power to whom 4QG is responsible, or, in other words, is there no redress for the listening public—other than a non-renewal of the listener's license?

The programmes are appalling and uninteresting in the extreme—one announcer in particular halts and stumbles until he is extremely annoying. Yet another announcer called the Governor-General "Lord Stonn-huven," and this is typical of his time on the air.

Like "Disgruntled," I started with a crystal—but recently built a power amplifier for "pick up" work, and, to my mind, this represents the best solution for 4QG listeners.

Why can't we have a "B" class station? I wish that 2UE could be shifted hohus bolus and then one could have a choice of either the radio or the electrical gramophone—which, to my way of thinking, is the ideal entertainment, especially with an amplifier similar to Mr. Martin's.

Yours, etc.,  
"DISGRUNTLED TOO."

Brisbane.

## W.W. Back Numbers

Dear Sir,—The response to the small notice in the query columns of "Wireless Weekly" regarding the back copies I had to dispose of was most gratifying. The number of interested readers who called was absolutely astounding. Some, I am afraid, went away a little disappointed through not being able to obtain the copies containing the "Proving Radio" articles, but it was a case of first come first served. Not only did I dispose of my copies of "Wireless Weekly," but most of my other publications also found willing readers.

Yours, etc.  
A. L. THORINGTON

Stanmore.

## Relay Stations

Dear Sir,—I notice that the P.M.G. has decided that Rockhampton will have a relay station. I think that his decision comes a little late. Why could not we have had a station there before this? It would have meant all the difference to the volume of license fees.

And now I suppose other States will be waiting to hear where the stations will be erected. Is it true that Bathurst, Newcastle, and Goulburn in N.S.W., Castlemaine and Ballarat in Victoria, and Renmark in S.A. are to have stations? We would like to hear a little more about this in future.—Yours etc.,

L. BECKE.

New England.

## Bathurst and Orange

Dear Sir,—It has been reported that a relay station is to be erected at Bathurst. What I want to know is, why not at Orange? This town certainly needs a relay station far more than Bathurst.—Yours etc.,

L. C. BROWNE.

Orange.

## No Pirates

Dear Sir,—Now that we have the promise of improved programmes I believe that it is time that the business of unlicensed listeners was cleared up. There must be thousands of these people all over N.S.W. and every pirate mean less money for better programmes. Cannot something be done about it? Why not run a special staff of inspectors? I don't believe that there has been any work in this direction up to date. I have had a license for four years, and never yet have I been asked to show it, nor have I ever heard of any of my friends being asked.—Yours etc.,

"NON-PIRATE"

Buckingham.

## Propaganda

Dear Sir,—With the advent of Government control of wireless stations, whatever damage may be done, or otherwise, to the programmes, it is to be hoped that interested persons will not be permitted to influence the programmes with such lopsided propaganda stuff as the "One Act Play," "Flames of Fire" (3LO—May 29).

Considering the fact that "A" class stations are dependent to some considerable extent on the license fees paid by unionists, the staging of "Flames of Fire" was unwise, and as it is I see no less than a direct libel on the intelligence of Australian workmen, and railwaymen in particular.

It would be foolish to argue that "Flames of Fire" does not necessarily apply to Australians, when the chief character in the play appears as a GOVERNMENT RAILWAY engine-driver, and who, above all, is made to connive a train wrecking, with a person of Russian name, and mixed in with all this is much lauding of University students—of course, indirectly—for their strike-breaking activities.

The pros and cons of such items of the programme should be carefully considered with due regard to the views of all sections of the license-holding community, and no section should be favored more than the others. Personal, political, and such matters should be cut out of the programmes altogether, and, in short, the stations should be neutral.

Yours, etc.,

CATHOD

Cessnock.

## Leave It to Mr. Doyle

Dear Sir,—Now that Mr. Stuart Doyle is to control the broadcast programmes, hundreds and hundreds of thousands of people are rejoicing. Stuart Doyle will live up to his name, I'm sure. So far, he hasn't ever let us down, and we all know that he won't now.

We do not doubt for one moment that the programmes are going to be "something out of the box," but nevertheless we would like to whisper a word of advice. A little classical music will be greatly appreciated, but—not too much of it. Jazz, on the other hand, can never be overdone, because there are always new numbers every week, whereas classical music is just one worn-out melody after another. Anyhow, we leave it to Mr. Doyle.—Yours etc.,

ELIZABETH L.

Balmain.

# SESSIONAL NEWS



## MISS VARLEY'S SESSION



THE 2BL Women's Sports Association will hold its first birthday party next Wednesday, June 26, at David Jones' dining-hall, at 3 p.m. Every club will be represented. Tables have been reserved for clubs of 50, 60, and 70 in membership. A pennant has been offered to the club which can decorate its table best. Original schemes of decoration are being planned by each club, and competition is keen. A special feature will be the prominence of the club colors, decking each table. Lady Fuller has been asked to act as judge. A cake with one big candle will be on the official table, and the president of the association, Mrs. Roland Conway will cut the cake.

Reports of the association's work for the year will be read by the hon. secretary, Miss Gwen Varley, and Mrs. Otto Raz, hon. treasurer, will present the balance sheets, showing that the association has weathered the storm of its first financial year, with a good credit balance.

## MR NORMAN'S SESSION



THE New Zealand earthquake didn't have a very satisfactory effect on Mr. Norman's session, as it has delayed the arrival

of the Diesel-electric oil-tanker, Brunswick, from June 22 to June 29. But Mr Norman will take his party over her on June 29—that is, next Saturday.

Mr. Norman wants all the boy friends to note that no questions about aeroplanes and aerial matters will be replied to during his session. These will be answered in their right places.

Mr. Norman also wishes us to say that he's given up answering Biblical questions. Absolutely. There must be no religious controversy associated with his Bigger Boys' session. The latest question in this regard was a poser:—"Adam and Eve had two sons, Cain and Abel. Cain took unto himself a wife. Where'd he get her from?" Mr. Norman gave what he considered to be the only possible answer to this question; but he says he knows there are many people more fitted to answer such questions than he is, and he refers all such questioners direct to those people.

## READING SESSIONS



TODAY, Friday, Captain Stevens will talk on the wonders of Kenya, which we conceive to be a mountain in the south-east of Scotland, or thereabouts. This would be very wonderful.

To-morrow, Saturday, the captain's talk will be "On Setting a Good Example."

On Sunday the "Woodbine Willie" talk will be on "Lies, Theology, and Religion."

## COOKING SESSIONS



DO you remember we said something a few issues ago about Mrs. Cranfield's Continental Recipe Book, which contained 180 different recipes for cooking rabbit? Well Mrs. Cranfield has now tested many of those recipes, and will give a few carefully selected ones to the public on Saturday morning. Mrs. Cranfield didn't say how Mr. Cranfield bore up while the testing operations were in progress.

Next Wednesday a talk will be given on icings and cake-fillings.

"So many people nowadays," says Mrs Cranfield, "judge cakes by their icings and fillings, that it is worth while to concentrate on this aspect of production, not, of course, to the exclusion of all thoughts of the quality of the raw material, but the housewife should attempt to become proficient in all the arts of cake making, and a thorough knowledge of standard icings and novelty icings will make an appreciable change in the appetites of families. Variety is the spice of icings."

Mrs. Cranfield frequently gives hints on little household matters, and, according to letters received, these are very much appreciated by her listeners. One listener wrote in:—"If only we had television, you might have seen me making full use of that hint you gave the other day about cleaning brass. It was just what I was wanting, and I got to work at once."

## :-: Servicing a Radio Set :-:

In impedance coupling only few remarks need be made. To get high impedance it is necessary to have high resistance; therefore, the voltage drop is high and high plate voltage is necessary to get a working voltage at the plate. Never use less than 135 volts for this system, and use blocking condenser of 1 mfd.

There is very seldom any service work on the c. s. w. will use our space to better advantage.

For some reason or other a choke coil should happen to open up, and it is necessary to replace it immediately, with none on hand or in stock, simply take one of those open primary transformers which you took out of Jones's set, and use the secondary winding. The iron core and winding of most audio transformers give the approximate inductance and choke.

The microhenries of a choke coil are an arbitrary value at the best.

### SPEAKER SERVICE. XXIV.

When the customer comes in, calls up, or writes and advises you that the speaker won't speak, and you discover that the cus-

### Continuing the series on servicing by a prominent radio business man.

tommer has just installed a power valve to pass on to the speaker those low frequencies and distortionless reproduction, put in some new coils, and then sell the customer something proper to protect the new coils from excessive plate voltage.

You cannot conveniently rig up an inductive coupling or condenser, choke coil output at the customer's home for demonstration, but you can do better in demonstrating an inductive output or a condenser, choke coil output by explaining how either of these methods absolutely protects the speaker windings from high surges of plate current and from the constant high-voltage polarisation. Either method, after demonstration, can be installed in or behind the cabinet or in the battery compartment of a console at a profit.

Most cheap and all poorly-designed parchment speakers cause the loss of characteristics of individuals and musical instruments, due to non-action on certain over tone harmonics.

Sometimes an instrument sounds like a 'cello, and it really is a violin, and some-

times an instrument sounds like a violin and it really is a 'cello. Although you get the musical notes, you do not get realism.

The above also applies to voices. Although the words or songs are distinguishable, a soprano may be singing and sound to you like some other voice.

That is where the exponential horn has it all over other kinds of speakers for realism. These overtones are not lost because the sound waves are given a path, scientifically designed as to sound wave expansion.

Before the advent of popular radio the phonograph owners sat back with the satisfied feeling that they had the only perfect thing in existence in their reproducing chamber or wooden box horn, but when the competitive force of radio was felt, they dived head-first into the art, and discovered that sound waves had a definite expansion, and the exponential horn was the outcome. It is used in high-class and true-sounding phonographs.

The use of a chamber giving double the expansion every lineal foot gave a horn which reproduced down to a cut-off at about 60-cycle frequency, and the use of a chamber giving less expansion per lineal foot reproduced down to a cut-off at even lower frequency.

# National Broadcasting Service

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Incorporating the Broadcasting Organisations of  
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The Directors of the Australian Broadcasting Company are desirous that all PROFESSIONAL AND SEMI-PROFESSIONAL VOCAL OR INSTRUMENTAL OR OTHER ARTISTS, CHORAL SOCIETIES, CHOIRS, BANDS, ORCHESTRAS, MUSICAL ASSOCIATIONS, LECTURERS, ELOCUTIONISTS, ACTORS, etc. should have an opportunity of being used for the NATIONAL BROADCASTING SERVICE in addition to others already available for the Service, and invite all persons with talent or associations of interest covering

the above to cut out and fill in the following form and FORWARD IT TO THE AUSTRALIAN BROADCASTING COMPANY, BOX 1904, G.P.O., MELBOURNE. or BOX 1609BB, G.P.O., SYDNEY.

The Directors realise that with the new era in Broadcasting, all Artists will feel in common with the Directors that their highest aspiration will be to Broadcast through the National Broadcasting Service, and thus serve the interests of the community as a whole.

### THE Australian Broadcasting Company

#### PROGRAMME DEPARTMENT

#### ARTIST INFORMATION FORM

Name and Address .....

Phone No. ....

Professional Name .....

Class of Work .....

Particulars Broadcasting Experience (if any) .....

When available for Audition .....

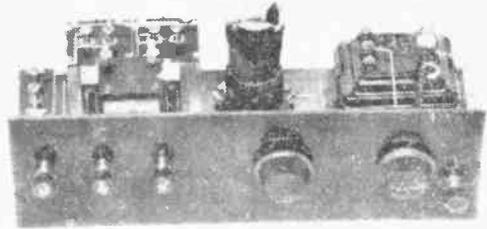
Fee for Broadcast desired .....

Available Locally Only or Inter-State .....

NOTE: Any information supporting or enlarging on above may be attached to this form, but should, if possible, be typed on paper the size of the form to facilitate easy filing.

Prepare for the New Era in Broadcasting by securing your set and taking out a license immediately!

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Is the original "ECONOMIC B'LIMINATOR" ---the original "B" Battery Eliminator, which brought Eliminators within reach of all.

Those worn-out, wheezy, crackling, decrepit old "B" Batteries can now be relegated to the dust bin.

THE ORIGINAL "ECONOMIC B'LIMINATOR" works sets up to 5 valves, is sold in kit form only: anyone can build it because the kit is complete in every respect, even to the Valve and Easy Picturised Wiring Sheet.

The Original "Economic B'Limiter" Kit, 59/6

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<p>BUY GOOD ONES AND GET PURE MUSIC.</p> <p>Philips Transformers ..... 27/6 A.W.A. Ideal Transformers ..... 18/- Ferranti AF3 ..... 45/- Ferranti AF4 ..... 34/- Ferranti AF5C. Push Pull ..... 63/- Ferranti OP3C. Push Pull ..... 47/- Ferranti OP1. Output ..... 41/- Crescent 6 to 1 Transformer ..... 11/- Crescent 3½ to 1 Transformer ..... 11/-</p> <p>And don't forget, we Guarantee all our Audio Transformers.</p>	<p><b>THE BEAUTIFUL DIORA VERNIER DIAL</b></p> <p>Adds Easy Tuning and Beauty to your Set. Small ..... 3 6 Large ..... 6 -</p>	<p><b>IF</b></p> <p>You would like to build the most selective 3-valve Set Yet,</p> <p><b>THEN BUILD "THE RENOWN THREE."</b> Parts cost £6/13/5.</p>	<p><b>PILOT CONDENSERS "CENTRALINE."</b></p> <p>A Quality Condenser at a low price.</p> <p>Size .00015 ..... 10/6 Size .00025 ..... 12/- Size .00035 ..... 12/6 Size .0005 ..... 13/6</p>
	<p><b>WESTERN ELECTRIC HEADSETS</b></p> <p>The Original W.E. Phone, 4000 ohms. Usually 27/6. * OUR PRICE, 19/6.</p>	<p><b>CONDENSERS FOR ELIMINATORS</b></p> <p>That will NOT break down</p> <p>Hydra 1mf. .... 3/6 2mf., 4/6; 4mf., 7/6. Hydra Condenser Packs, 35/- Special 4mf. 1000 volt Tested Condensers, 9/-.</p>	<p><b>FRESH "C" BATTERIES</b></p> <p>Ever-ready 4½ volt ... 2/9 Ediswan. 9 volt ... 2/9 Climax, 30 volt ... 8/- Climax. 45 volt ... 12/- Once tried always used.</p>

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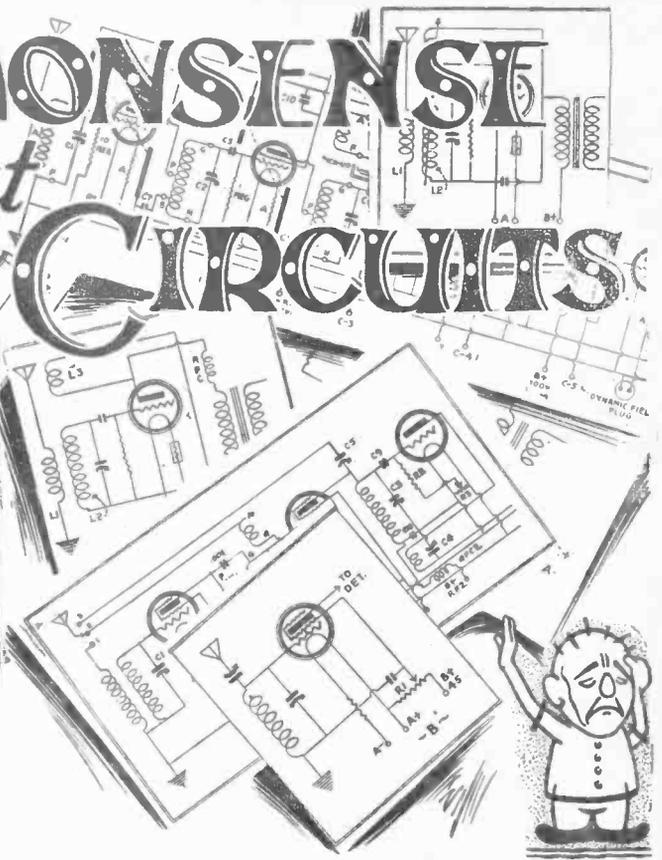
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# COMMONSENSE about CIRCUITS

*A Vigorous Exposition of Antiquated Ideas on "Wonder" Circuits*  
By ROSS A. HULL



**A**N alarming amount of bunkum and balderdash has been circulated, since the popularisation of broadcasting, in connection with receiver circuits. So well has this circuit rubbish been encrusted in the minds of radio enthusiasts that we feel it our first problem to endeavor to clear some of it away before we can attempt to talk about recent developments, modern receiver performance, and the ways and means of attaining it. It is quite confusing and not a little amusing to come back to the country to find radio listeners and experimenters talking a radio circuit language about which one knows almost nothing.

Extraordinary, or at least marvellous, circuits seem to abound in great numbers, each one capable of some particularly wondrous performance, and each one bearing an imposing name. "Why, for goodness sake, don't you know the 'Tootidyne' circuit?" gasps the present-day Australian radio enthusiast, with his hands about to be thrown up in horror. "Why, it's a marvellous circuit—ever so much better than the 'Tiddlex'." And then with a sly grin he is likely to add (and has), "Just fancy YOU not knowing the 'Tootidyne'—with all your tripping around American laboratories and everything." In a burst of enthusiasm he is then prone to start off on a recital of his observations on circuit performance in general. "You know, this new circuit is just so far ahead of the 'Soloflex' that 7ZL comes in twice as well—and that 'Tintax'—why, with my big aerial the week before last I could only— and so on and on.

We naturally feel crushed on finding that it is impossible to join in with even some slightly pertinent technical remark, even to grasp the trend of the discussion, and we are tempted to decide that we are never to get a hold on this radio game. So many times have we been floored during the brief contact with Modern Australian Broadcast Reception to date that we have now rebelled. We plan to learn something of "Tutiflexes,"

"Extraordinary Ones," and "Mewtreeflexes" but in the meantime we are going to break out with some home truths about circuits in general and extraordinarily marvellous circuits in particular. We are going to attempt to abstract some of the applesauce from circuit confusion.

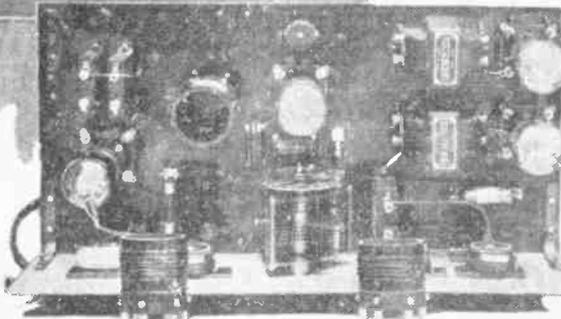
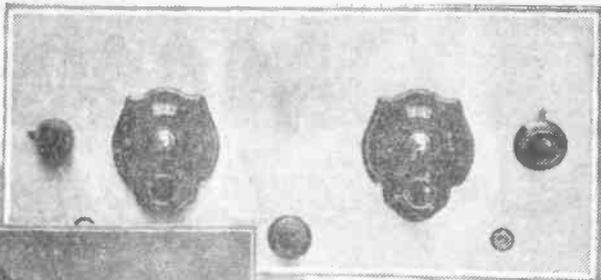
If we consider a circuit as the electrical arrangement of the components provided to permit a certain mode of functioning we really could say that circuits in present use are of but two types—the single detector circuits and the double detector circuits. In other words, this division would class all circuits other than the "super-heterodyne" variety in one group, and all the "super-heterodyne" arrangements in the second. This drastic bisecting of all circuits could be justified by saying that all circuits with a single detector operate in the same manner—the incoming radio frequency being amplified and detected or detected and then amplified, or both—while the double detection circuits all operate in a different manner—the incoming energy being detected and changed to an entirely different radio frequency (with or without preceding amplification), amplified at the new frequency, then detected again and amplified.

Basically these are the only different methods of receiving signals, and consequently they are the two categories into which all circuits may be placed. It would be most inconvenient, of course, if one could talk of circuits only as "double detection" or "single detection," and many subdivisions have been made to fill the need for more detailed descriptive terminology. In order to understand fully the subdivisions it will be necessary to see just how circuits work and what the necessary components are.

The receiver, irrespective of whether it is a "Nighthawk Three" or a "Super-Marvel Four" will not operate unless there is, somewhere in the circuit, a detector. It may operate if there are no radio frequency amplifiers or no audio frequency amplifiers, but the detector is quite indispensable. We can, then, consider that the detector is the most essential unit in any receiver, and detection the most important function. Let us see just what it is all about.

The output from the aerial of the receiving installation, as almost every radio enthusiast knows, is the form of oscillating or alternating currents. Though resembling somewhat the alternating current arriving over our house lighting mains, it differs in two important respects. Firstly, the alternations are extremely rapid (varying between about 580,000 and 1,200,000 cycles per second, depending upon the wave length of the transmitter), and then the currents are extremely weak. The point that interests us most at the moment is the frequency of the currents, which is so high that the phones or speaker could not possibly respond to it even if a few dozen choice amplifiers were added—so high that, even if the speaker could reproduce it the ear would not notice the difference. The function of the detector is to rectify this current—to prevent it from alternating, and to make it flow in pulses in the one direction.

Though we cannot stop here to describe the actual manner in which this is accomplished, we can say that the output of the detector is then in the form of an intermittent current, the pulses all flowing in the same direction. If the radio frequency cur-



rent being received is a perfectly steady one (such as is obtained when no modulation is taking place at the transmitter) the output of the detector will be a series of pulses at high frequency, but all of the same strength or amplitude. The effect on the 'phones or speaker would then be similar to that obtained by passing a steady battery current through them. It is only when the strength of the incoming radio frequency currents is changing, in accordance with the audible frequencies generated in the studio, that the output of the detector will be able to generate musical sounds in the speaker. The whole point is that the detector is something we cannot do without in any receiver. It is one essential section of all circuits.

The simplest receiving circuits, we now find, are really nothing more than a detector fitted with a means of feeding the incoming currents into it and of taking the audible currents out of it. The crystal is probably the simplest of all detectors, and the crystal circuit the simplest of all circuits. Nevertheless, it is possible to arrange the crystal in a half-dozen different fashions. Each arrangement, once it was correctly proportioned and adjusted, would provide the same results. And each arrangement, according to the popular ideas of the day, could be given a different dizzy name. There could be the "Snootidyne" crystal circuit (capable of the most wondrous results); the "Pickardyne" (worthy of the highest possible praise); the "Crystoflex" (the marvel of the age); and the "Cityman's Nought" (hitherto unsurpassed in the annals of crystal circuit development). Crystal receiver enthusiasts could then argue about the relative merits of their particular circuits, and we could come out with an "amazing" article on some "revolutionary" development in crystal work every other week. All of which would be about as ab-

surd as some of the present practices with more involved circuits.

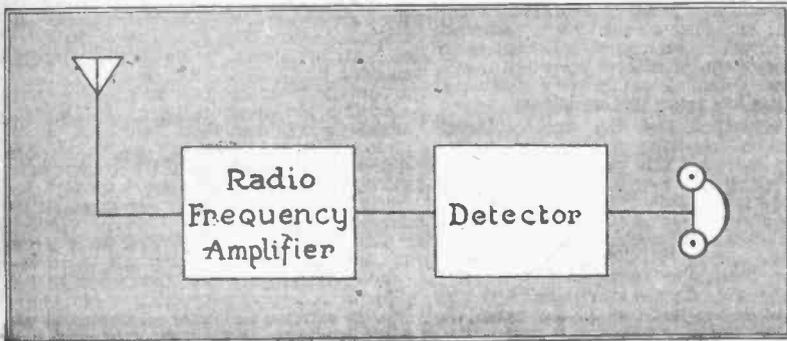
From the crystal as a detector we proceed to the valve—a unit not only capable of providing excellent detection, but considerable amplification at the same time. A single valve can be arranged with input and output circuits to constitute a splendid receiving circuit, and the details of the wiring can be varied in a score of different ways. When so used the valve is almost invariably provided with regeneration (to increase the overall amplification and sharpen up the tuning), and this regeneration can be controlled by a great many different means.

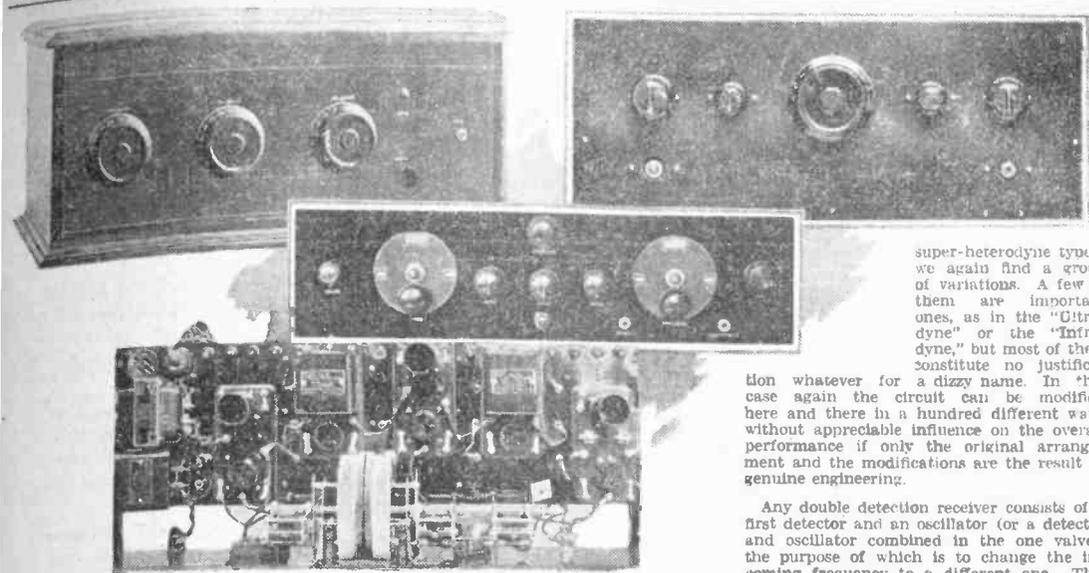
Even so, it can be shown that a given valve, with correct constants throughout, will provide similar results, irrespective of how the circuit is arranged; that the results given by one "circuit" can never be "extraordinary" or "revolutionary" compared to those available from another, provided the same care is taken in the design, construction, and operation of both of them. Articles on "The Wonder One," or the "Marvel One," for which circuits marvellous results are claimed, should be read, therefore, only after the pages have been sprinkled thickly with salt.

The single detector tube circuit is definitely limited in sensitivity, selectivity, and output, and, in the endeavor to improve

increased selectivity, while amplification by the valves results in improved sensitivity. One, two, or three such amplifiers are used in practical broadcast receivers, and an almost limitless number of schemes have been devised for coupling the first valve to the aerial, coupling between the valves, and preventing self-oscillation. The important point is that the many methods and the innumerable variations are but different ways of attaining the same objective; that the truly practical schemes are similarly effective, and that, irrespective of what combinations are used to make up the "circuit," similar results will be had with given valves operated under correct conditions if only the receiver is designed, built, and adjusted properly. A change from conductive to inductive coupling in the aerials circuit, for instance, need not make any detectable difference in the performance of the outfit, even though it is considered by some to constitute a sufficient change in the circuit to justify the one to be called an "Alphadyne" circuit and the other a "Betadyne."

The output of the detector tube normally is not sufficiently high to operate a loud speaker directly, and for this reason it is common practice to follow it by one or more audio frequency amplifiers. In the case of the audio amplifier, again, we find innumerable variations in the manner in which the tubes are coupled, and in which the final amplifier is coupled to the speaker. Sometimes the detector and audio amplifier are operated without any radio frequency amplifiers, while in other cases both radio and audio amplifiers are incorporated in the outfit. By the time that the receiver contains four, five, or six tubes arranged in some such manner, the possibilities for minor variations throughout the circuit are almost infinite. And each variation appears to justify a new name for the combination. A single radio frequency amplifier, followed by a detector and audio frequency amplifiers, can be arranged in a "Browning-Drake" circuit if the regeneration on the detector is controlled in a certain manner. If the regeneration control is obtained by a different (though equally effective) scheme, it isn't a





"Browning-Drake" circuit any more. It is a "Marco" a "Toodlex" or some other thing. And what is so devilishly amusing is that enthusiasts, thinking a "Toodlex" something quite different from a "Browning-Drake," can be heard claiming that their "Toodlex" circuit is ten times better than the "Browning-Drake," when really they are the very same thing, capable of quite the same performance if built and adjusted in the same manner.

Just to vary things a little and to create a new "circuit" the regeneration control system can be changed again to another of the many effective schemes. Presto! The circuit is now a "Reinartz," which even poor John Reinartz (who apparently started all this "Reinartz" circuit vogue unknowingly) would never recognise in his wildest flights of imagination.

In America I lived quite close to Reinartz—not the circuit, but the man—and in the course of time we became close friends, spending long days and nights arguing on radio subjects and experimenting with radio gear. Years ago he built a very effective receiver for short-wave work, which incorporated some minor variations in the circuit wiring popular at that time. This came to be known as the "Reinartz" receiver, a type copied by many short-wave experimenters. At this time, it would seem, any broadcast receiver circuit with the regeneration controlled in a certain manner is for some weird reason a "Reinartz" circuit. John Reinartz, a reserved, sincere experimenter, would certainly be the first to yell with laughter at the utter absurdity of it.

While we are still talking of single detector circuits it would be well to agree that the fundamental circuits have been modified in some details with distinct advantage. Many different means have been evolved, for instance, for the stabilising of the radio frequency amplifiers. The neutralising schemes are excellent examples. Then there have been introduced quite a number of variations in the coupling devices between the amplifiers, the input connections to the first valve, and the output connections from the detector. All of them, however, are

merely different ways of accomplishing the same result. Providing the circuits incorporating these schemes are well engineered and carefully designed there is no earthly reason why the neutralising method, the aerial coupling device, the regeneration control system, or the inter-valve coupling unit should not be changed, changed, and changed again without appreciable influence over the general performance of the receiver.

We hate to have to reiterate this thought so often, but we are determined to have it understood by followers of the "extraordinary circuit" vogue. A well-designed circuit operating with the correct circuit conditions will give a certain performance. That performance, we insist, will not be made marvellous or revolutionary by comparison if some alternative method for accomplishing some function in the receiver is made use of. The only thing that the change does provide is justification for some half-baked radio expert to invent a new and amazing circuit.

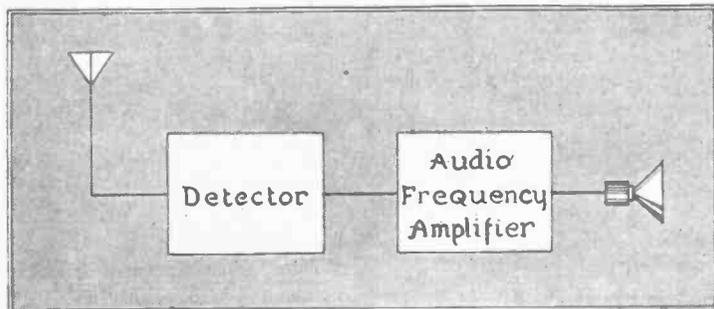
Of course the screen-grid valves and pentodes require variations in the wiring and changes in circuit values. Circuits employing them naturally have a standard of performance of their own. These screen-grid radio frequency amplifiers, however, are still radio frequency amplifiers, and the circuits incorporating them still belong in the same basic categories as they did before the same grids were added.

To proceed now to the second fundamentally different circuit—the double detection or

super-heterodyne type—we again find a group of variations. A few of them are important ones, as in the "Ultradyne" or the "Infrazyne," but most of them constitute no justification whatever for a dizzy name. In this case again the circuit can be modified here and there in a hundred different ways without appreciable influence on the overall performance if only the original arrangement and the modifications are the result of genuine engineering.

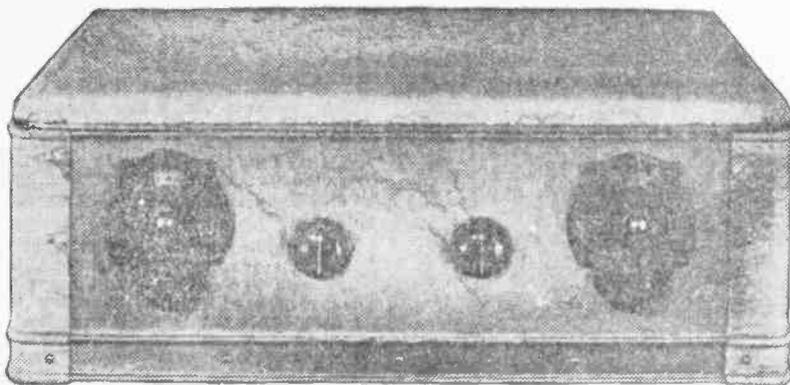
Any double detection receiver consists of a first detector and an oscillator (or a detector and oscillator combined in the one valve), the purpose of which is to change the incoming frequency to a different one. This unit may or may not be preceded by a straight radio frequency amplifier, but it is a super-heterodyne in either case. Then there is an intermediate frequency amplifier provided to amplify the output of the first detector. This is followed by the second detector, and, may-be, an audio frequency amplifier. Naturally a complex circuit of this type provides opportunities for infinite variations. A good super-heterodyne receiver could have its circuit modified in a hundred different ways by a capable engineer seeking amusement without audible change in the performance. Other less capable men can make as many variations, think up as many strange names for them, and turn out as many "new circuits"—each with some extraordinary or marvellous performance characteristics.

Through all this raving we have been endeavoring constantly to keep in mind the fact that circuit modifications are not always bunkum; that efforts to refine, revise, and adapt the standard circuits are not only important, but an essential factor in receiver development. We have no complaint to offer against the process of developing new methods of control and new circuit arrangements. We do object, however, against the practice of permitting minor circuit changes to justify the "development" of "new" circuits and new standards of performance. So much do we object, indeed, that we plan to start off on an enthusiastic crusade against all such practices. The established radio journals in America have succeeded, in recent years, in quelling the "amazing circuit" school of radio writers, but it is pitifully evident that English and Australian readers are still feeding contentedly on the same grade of tripe.



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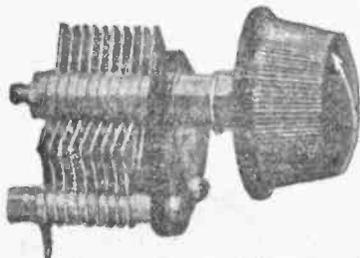
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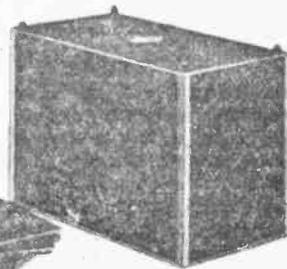
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### Unusual Distortion

It has often been thought that loose laminations in the cores of audio frequency transformers could be responsible for distortion in the output of the amplifier. In the past, however, this has not been so since the energy level has not been high enough to cause mechanical vibration of any loose core material.

Since the development and popularisation of relatively high-powered output amplifier stages this imaginary trouble of the past has now, it would seem, become a very real one. The output transformer or choke in an amplifier employing one or two UX-210's, UX-250's, or their equivalent, carries a current of considerable magnitude and vibration of loose laminations can well be set up. Every time a lamination moves the reluctance of the core changes. This reluctance change sets up a parasitic current in the output which can make itself evident as distortion.

The effect probably would be more noticeable in a push-pull output amplifier than in a single tube output stage. The output transformer or choke in the single tube amplifier carries a steady D.C. component which tends to aid the mechanical stiffness of the core, whereas in the push-pull output the D.C. has little magnetising effect.

Of course, it is only in the output transformer that any such trouble is likely to occur, since, in the others, the energy level will not be high enough. The existence of loose laminations may often be detected by disconnecting the speaker, with the amplifier running, and listening to the output transformer. Even a good solid transformer may produce weak music if the output level is high but the volume of sound will be much lower and much more free from distortion than in the case where loose laminations are causing trouble.

### We Agree

J. S. RAMSAY, of Clovelly, in discussing other topics in a recent letter, says:—"I am sure there are many experimenters and others who are interested in the comparison of results on various circuits and dynamic reproducers, and others who have made little discoveries which, though of no commercial value, would be very helpful to the experimentally inclined listener. As an instance I might state that, though one is always advised that it is impossible to get rid of harmonics in an eight valve superheterodyne of the Strobodine circuit, I have found, after exhaustive experiment, that these harmonics (and there are many of them) can be totally eliminated by adding another R.F. stage.

"Again, I specially built a receiver so that R.F. would find its way into the audio, and cause howling, whistling, and screeching. This was done by placing grid leads near and parallel to plate leads, making these leads fairly long, placing coils so as to cause interaction, and so on.

"I succeeded! The row was terrific. Then I tried the familiar R.F. choke. To the average set-builder it would have been deemed an annoyance to find that four R.F. chokes, at 8/6 each, hardly helped at all but to me, the discovery that R.F. chokes were not so efficient as they might be, came

as a revelation, and as a pleasure, for it gave me something with which to experiment.

"Accordingly, nine days later, I listened on this set to ZL Hobart, and other Inter-State, without any whistling, on the same receiver (no alterations). This is how it was done—note the difference in cost: I placed a 25,000 ohm. resistance across the secondary of both transformers."

### For the EXPERIMENTER

That there exist in Australia a considerable number of advanced experimenters interested in modern developments, trends, and practices in both broadcasting and short wave communication is made evident by correspondence reaching WIRELESS WEEKLY, and by our own personal observations. In the future, providing we are able to obtain sufficient support, we hope to maintain this new page for their particular interests. In it we plan to discuss modern developments in all phases of broadcast reception, electrical gramophone reproduction, and short wave working, without limiting our selves to the elementary considerations to be so widely treated in other pages of the magazine.

The fundamental objective, however, will be to make the page a debating ground for Australian experimenters, in which extracts from foreign publications will be printed only when they are considered to be of especial interest or consequence. This objective, naturally, will be attained only if experimenters in this country will co-operate to the extent of coming forward to discuss, in this page their own particular experiences, observations, or problems.

—R.A.H.

### The Exponential Speaker

WITH the exception of the "talkie" installations and the "Orthophonic" type gramophones, little use is made of the exponential type of horn in this country. The condition is rather strange, since the exponential horn permits a quality of reproduction considered to be equal to that of the moving-coil cone. It is almost certain that many Australian experimenters have built such horns for their own work, and "WIRELESS WEEKLY" would appreciate hearing of their experiences.

It has been shown mathematically that the shape of horn which permits most effective radiation of the musical frequencies is that following an exponential form. This form is one in which the area of the orifice doubles at equal intervals along its length. The rate of expansion of the orifice determines the lowest frequencies which will be passed without excessive attenuation or loss. A horn which doubles its area every foot will reproduce down to about 64 cycles, while

a horn which doubles its area every six inches will only be effective down to 128 cycles.

In order to permit a reasonably flat frequency response curves, resonance must be avoided inside the horn. This can usually be accomplished if the mouth of the horn is made equal to one quarter wavelength of the lowest frequency required. A horn for which the cut-off frequency is to be 32 cycles (for which the wavelength is 39 feet) should, therefore, have a nine or ten foot mouth. For ordinary broadcast reception, of course, a horn having these characteristics would be infernally cumbersome. Thirty-two cycles, however, is a very much lower frequency than is transmitted satisfactorily by our broadcasting stations. In any case, it is a frequency not often heard in musical renditions.

A further requirement in such horns is that its walls must be quite solid and "dead." The writer at one time assisted in the construction of a large exponential horn (with a 13 foot sound column) and the material used was heavy cardboard. The affair was a complete failure until its walls were plastered with a 1-inch thick layer of paraffin wax, held in position with cheese cloth. With this modification, the horn, with a good unit, provided some of the best reproduction he has ever heard. So high was the efficiency of the horn that "headphone" strength in the unit alone provided ample volume for a large room when the horn was added. The only disadvantage in the arrangement was revealed when its owner moved to another house. In order to get the horn through the door it had to be demolished.

### The Frequencies in Voice

MANY studies of the frequencies present in the human voice have been made from time to time. A recent investigation into voice frequencies and their relative importance, made by Western Electric Company engineers, has shown that quite good articulation is possible even if the lower frequencies are removed. With all frequencies below 2000 cycles missing, the articulation was found to be 40 per cent., this figure rising to 70 per cent. when frequencies down to 1400 cycles are permitted to pass. It was found, however, that the lower frequencies are important in providing the energy in the voice. When frequencies below 500 cycles were eliminated, the energy fell 60 per cent., while the articulation suffered by only 2 per cent. Eliminating all frequencies above 400 cycles, on the other hand, resulted in the articulation falling 95 per cent. with the energy persisting at a 60 per cent. value. From these figures it can be seen that there is little excuse for the loud-speaker speech of the broadcast receiver ever to have poor articulation. Even the cheapest amplifying equipment should provide a sufficiently flat frequency response curve to give good speech even if the music does suffer. And yet it is surprising the number of receivers from which speech articulation is weak. One realises that most of the distortion for which transformers and speakers are blamed really is the result of incoherent adjustments and unsuitable circuit values.

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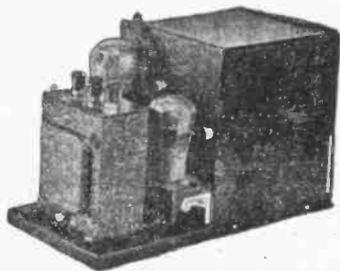
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# PROVING RADIO

This week we make our own electric buzzer and electric bell, and discuss some experiments and uses of the buzzer, also the principle on which it operates. The electro-magnet which we made in a previous lesson can be used for the buzzer and bell.

20  
27

We shall continue with experiments this week. As we have investigated the mysteries of the electro-magnet, it is time we made practical use of our knowledge. Let us make our own electric buzzer, which, besides being capable of creating both audio frequency and radio frequency waves for our experiments, may be used for Morse practice.

Procure a piece of wood  $3\frac{1}{2}$  inches wide and  $3\frac{1}{2}$  inches long and  $\frac{1}{4}$ -inch thick. Drill

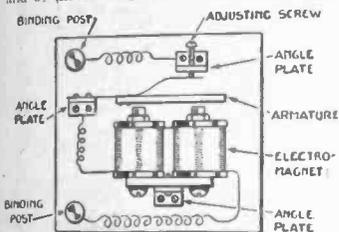


Fig. 1.

two 1-8-inch holes near the corners for the terminals—as in Fig. 1. This done, take a piece of brass strip 1-16-inch thick,  $\frac{1}{4}$ -inch wide, and 1 3-8 inches long; drill a 3-32 hole in one end and two 3-32 holes in the other end, and bend this end over 3-8 inch, as shown in Fig. 2. Secure this angle plate to the yoke of the magnet (if you have forgotten what the yoke of the magnet is, refer to "P.R." part 17) by means of a small machine screw, and then screw the plate to the base, as shown in Fig. 1.

The vibrating element (or trembler, as it is sometimes called) must be made next. This element is used to make and break the circuit automatically. You will need a piece of soft iron 1-16 inch thick,  $\frac{1}{4}$  inch wide, and 1 3-8 inches long; drill two 1-18 inch holes in line with each other through one end of it. Fig 1 will show this clearly.

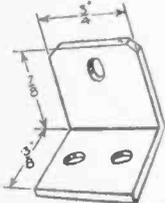


Fig. 2.

Now cut out a strip of spring brass, and drill  $\frac{1}{16}$  inch holes in line with each other—two in the middle and two in one of the ends, and fasten it to the armature, as shown in Fig. 3. Next make two more angle plates of a strip of 1-16 inch thick brass,  $\frac{1}{4}$  inch wide and 1 3-8 inches long. Drill two holes in one end of the strips, and bend one end over 3-8 inch. Rivet the free end of the vibrating spring to the angle plate (as in Fig. 1), and then screw the latter down to the baseboard so that the armature will be about 1-8 inch or 3-16 inch away from the ends of the poles of the magnet. The armature is depicted in Fig. 3.



Fig. 3.

Drill two holes in one end of the other

angle plate and a 3-32 hole in the middle of the upper end, and tap the latter to fit a small metal-thread screw; this should be about  $\frac{1}{16}$  in. long and fitted with two nuts. File the end of the screw down to a point, screw on a nut, put the screw through the threaded end of the angle plate, and screw on the other nut. Screw the angle plate down to the baseboard so that the point of the screw will just make contact with the free end of the spring (Fig. 1). The purpose of the nuts on the screw is to hold the latter firmly when the correct adjustment has been found.

Screw a terminal to each of the lower corners of the base (Fig. 1); connect one of the wires of the electro-magnet to one of the terminals (the construction of the electro-magnet has already been discussed), and connect the other wire of the coils to a screw in the angle plate of the vibrator. Finally, keep a piece of wire around a screw in the angle plate that carries the adjusting screw, and connect it with the other terminal. The buzzer will then be ready to use.

In addition to the various uses to which the buzzer can be put (mentioned at the head of this article) the instrument described here has the distinct advantage in that it can be controlled to give the highest

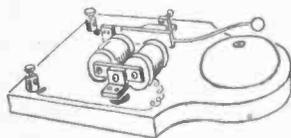


Fig. 4.

possible pitch, and is therefore of great use in testing radio circuits.

Whilst on the subject it might be mentioned that an electric bell may quite easily be made by providing a hammer on the vibrator, and screwing a gong to the base. Mount all the parts described above on a base  $\frac{1}{2}$  inch thick,  $3\frac{1}{2}$  inches wide, and 5 inches long. Drill a 1-16 inch hole in the free end of the armature, and force one end of a brass wire into it; then get a brass ball 5-16 in. diameter, drill a hole in it, and force the other end of the wire into it. Bend the wire, as shown in Fig. 4, and screw on a gong about  $2\frac{1}{2}$  inches diameter to the base-board, as shown in Fig. 5.

With the aid of your buzzer and our old friends, the carbon rods, we can make a good shocking coil. These shocking coils at one time were used extensively for medicinal purposes.

Connect up the battery and buzzer, as shown in Fig. 6, and connect a carbon rod to each one of the terminals of the buzzer. As soon as the battery is connected the shocking machine will start to operate, and when the carbons are held a fairly good stimulating shock will be had. This may be increased by wetting the carbons with salt water, the reason being that brine is a good conductor. If you give a friend one of the carbon rods to hold, and you hold the other, you will feel no shock, but if you place your finger on his forehead, neck, or any other

part of his body the current will flow. However, the shock will be greatly reduced, as your two bodies will be in series.

Another well-known "experiment" with the shocking machine (usually played by vindictive brothers on uninitiated and trusting sisters) is to place a penny in a glass of water which has been mixed with a few teaspoonfuls of salt. The unsuspecting victim is asked to hold one of the carbon rods (and the demonstrator shows that it is quite

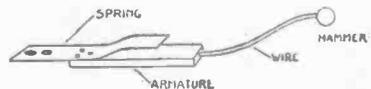


Fig. 5.

harmless by holding it himself) and the other carbon rod is placed inside the glass. The victim is then promised the coin if he or she can pick it out of the glass with one hand whilst still hanging on to the carbon rod with the other. As soon as the victim plunges his or her hand into the brine—but try it, and see!

An automatic buzzer can be made by connecting the jumping spring (previously described), the battery, and the buzzer in series. Every time the spring makes contact with the mercury it will close the circuit, and the instrument will sound like a machine saw. If the carbon rods are now connected the person holding them will receive periodical shocks, which will be so strong as to cause his muscles to tighten. His whole body will move jerkily if the rods are soaked in brine.

Reverting to the buzzer. It will be apparent to many of my readers who have actually heard Morse code over the air that the buzzer gives a very different signal. Instead of a pure note one only hears a rasp-

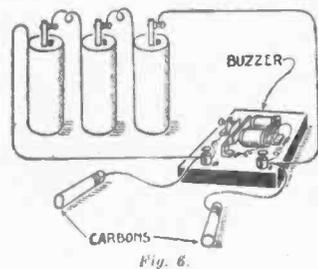


Fig. 6.

ing buzz. However, if a pair of earphones are connected (one side to one of the battery terminals and the other side to the adjusting screw), a beautiful note will be heard in the 'phones. The buzzer, key, and battery should, of course, be placed in series.

It will be found that the note heard in the telephones is an excellent imitation of the real thing, and it is therefore splendid for practice.

For testing continuity of a coil or circuit the battery and buzzer should be connected in series with that part which has to be tested. If the circuit is complete the tester

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A group of younger members of the Proving Radio Club. These members do not take part in the theoretical instruction, but experiment with various circuits with "junk" apparatus.

will buzz, whilst no sound will be heard if the circuit is open.

Buzzers can also be used to find the most sensitive spot on a crystal, but this will be treated later.

If you have a radio receiver you can prove that the buzzer emits both radio frequency and audio frequency waves. You know that audio frequency waves are transmitted, because you can hear the buzz. However, if you place the buzzer near the coils or the aerial of your receiver you will find that you can (although there is no direct contact between the buzzer circuit and the receiver) hear the signals.

The student who has followed "Proving

Radio" up to date will understand how the buzzer operates. Briefly, the current from the battery is passed around the windings of the electro-magnet through the contacts. The core of the magnet thus becomes magnetised by the current through the coils. This magnet attracts the armature to it. As the armature moves the circuit through the contacts is broken, and the armature returns to its former position, and starts over again. The frequency of the armature movement depends on its stiffness and on the position of the adjustment screw. It will be found the frequency of the emitted note can be increased by screwing the adjusting nut nearer to the vibrator, and decreased by unscrewing the adjuster.

## PROVING RADIO CLUB NEWS

THESE are probably many readers in the same position as Mr. W. D. Sullivan, who writes:—"I am very interested in 'Proving Radio,' as I am an A.O.P.C aspirant, but I am handicapped because I cannot join a club. However, I see you are accepting country members. Though I am not living in the country, all my nights are taken up by night school—i.e., four nights per week, though the other two nights are taken up with other work. However, I find enough time over the week-ends to do my experiments, and the expense is not so very great. Could you include me as a member? Please send particulars of fees, etc. I like 'Proving Radio' very much, and think the Morse lessons will be a great thing."

Answer: You are quite at liberty to join the "Proving Radio Club." No fees are required, unless you join a local group and attend lectures and experiments, when the money from these fees pay for experimental material. I have forwarded your letter to the organising secretary, Mr. C. Y. Hook, who, no doubt, will get in touch with you before you read this.

GOULBURN GROUP: Mr. L. E. Divall, 60 Clinton Street, Goulburn, writes:—"I have read with interest all the articles that have appeared in your paper, but have not carried out any of the experiments described therein. I have, on several occasions, approached friends more or less interested in radio, with the object of forming a local 'Proving Radio Club' for the purpose of carrying out these experiments. My efforts did not meet with even a small amount of success. However, I will keep trying. In the meantime, I would appreciate the insertion of this letter so that those readers in this town interested in 'Proving Radio' (perhaps only waiting for someone to start the ball rolling) could call on or communicate with me. I would then arrange a meeting of those concerned. I am sure, together with those who come forward to form the group that, from the instruction given in the articles in question, a great knowledge of the

fundamental principles of radio could be amassed. I have been interested in radio for the past six years, and am at present following a course of instruction in that science."

Answer: No doubt some Goulburn readers will see this. Your letter has been passed on to Mr. A. G. Simmonds, "Gunton," Marsh Street, Arncliffe, who is the country organiser.

PAPUA GROUP: Now that the "Proving Radio Club" has spread in fame throughout Australia, letters from further afield are beginning to come in. The latest is from Papua, and reads:—"I would like to start a 'Proving Radio Club' here. Will you kindly send me particulars, advising what must be done?" (Sgd.) Joseph C. H. Waldron.

Answer: Your letter has been passed on to Mr. Simmonds, "Gunton," Marsh Street, Arncliffe, who is organising secretary for all but metropolitan clubs. You will hear from Mr. Simmonds shortly. Welcome to the "P.R." Club.

MAROUBRA JUNCTION GROUP: This group has just been opened at 11 Shepherd Street, Maroubra, and is still open for new members, who can get in touch with Mr. C. Y. Hook, 29 Blaingowrie Street (Pet. 3272) or Mr. R. Mansfield, 11 Shepherd Street, Maroubra.

RANDWICK GROUP: Members of this group are progressing very favorably, and are looking forward to the lectures that are to follow. The subject taken at our last meeting was condensers in series and parallel and formulae for same, also the subject of capacity was gone into very thoroughly.

BONDI GROUP: A new group of the "Proving Radio Club" has been formed, and this group will hold its initial meeting on Thursday June 20, at the residence of Mr. Biggerman, Lamrock Avenue, Bondi. As this group is already closed for membership, every co-operation will be given to any person who desires to open another group at Bondi, and for information, get in touch

with Mr. C. Y. Hook, or Mr. Barker (M6861). Mr. Huey, VK2HU, has started Morse classes on 230 metres for the benefit of the club members who appreciate Mr. Huey's effort to help them along the path to the A.O.F.C. At present this station is transmitting every Sunday night at 8 o'clock, and members are requested to send their reports on reception of VK2HU to the executive, so that an idea as to how the transmission is getting out can be obtained, and a report forwarded to VK2HU. Are there any other amateurs who would like to help the members of the club in the same direction? If so, would they please notify the executive of the club. VK2HU has started the ball rolling on 230 metres. Who will be the next amateur to lend a hand?

**DULWICH HILL GROUP:** Tuesday, 11th June. The usual Morse practice was carried out at the residence of Mr. Miles. Those attending this function have reached five words sending and transmitting. Their aim is not speed so much as clean spacing and well-punctuated transmission. The report of VK2HU's willingness to transmit on Sunday met with the hearty approval of the gathering, and it was then and there resolved to listen-in and make report to our next meeting of the transmission.

Friday, June 13. The Group met as usual, the night's work being simply cells and accumulators, theory and construction, examples of connections, i.e., series, parallel, and series-parallel. As far as the simple cell was concerned, we admitted to knowing the practical side, so stewed over the theory, reasoning out the formulae with the aid of a blackboard, until the whole of the Group agreed that they had mastered it. Then we proceeded to examine the accumulator with the aid of a new set of plates and an old accumulator. The task was a comparatively easy one, so passed on to discuss the complications of connections, which were thoroughly mastered before breaking up.

**Anxious Holiday**

MR. TOM INNES, Control Operator at 2BL, went away for a peaceful holiday. The one thing he wanted to be away from was a radio set; because control room operators first three years or so. The first thing Mr. Innes saw when he arrived at his resting place was a radio set. But it wouldn't work, they said. Did Mr. Innes know anything about radio sets? Er—Mr. Innes—er—didn't know much about radio—a little; but—er—not much. He looked over the set, and immediately diagnosed the trouble—a run-down "A" battery. Very naughtily he decided not to say anything about it; and settled down to a restful holiday. Then someone else thought about run-down "A" batteries, and took the "A" battery to the charger. "Good-bye to peace!" said Mr. Innes. But he was lucky. When the fully-charged battery was hooked up the set still refused to budge. They said to Mr. Innes and things in general, "What on earth's the matter?" Mr. Innes knew the battery terminals were corroded, and that the corrosion prevented electrical contact; but he said not a word except to marvel at the strangeness of it all. However, on his last day in his resting place they were talking seriously of sending for an expert, so he put the set in working order on the night before he came away.

**Correction**

In a recent issue of WIRELESS WEEKLY a statement was published mentioning that Mr. George Saunders (Uncle George, 2GB) would be associated with the management of the Australian Broadcasting Company. A letter from the Theosophical Broadcasting Station, Ltd., however, points out that Mr. Saunders' engagement with 2GB does not end for some time. We hasten to correct any wrong impression which may have been made.



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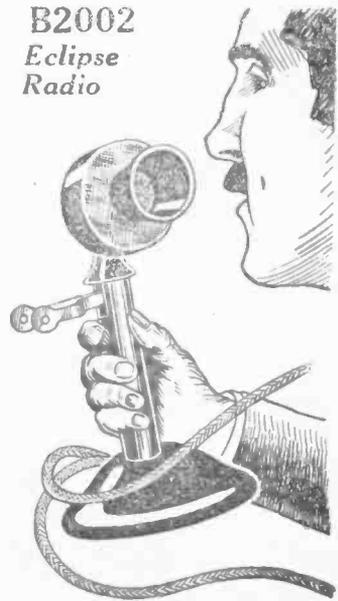
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# Local Programmes, Friday, June 28

## 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: Snipping intelligence; mail services. 7.15: Studio music. 7.25: Investment market; mining sharemarkets; 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. 10.2: 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: Summary of news, "Sydney Morning Herald." 12.10: Rugby wireless news. 12.13: 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: Laurence Halbert.  
Accompanist: Ewart Chapple.  
2.30: Programme announcements. 2.32: Items of general interest and music. 3.0: Popular music. 3.30: Ida Tear, pianist—"Carnival Mignon" (Schutt); Scenes Pantomimiques—(a) "Serenade d'Arlequin," (b) "Tristesse d'Colombine," (c) "Polichinelle" (burlesque), (d) "Pierrot Reveur" (Nocturnette). 3.40: Studio items. 3.45: A reading. 4.10: Ida Tear, pianist—(a) "Intermezzo in C Major" (Rex de Calros-Rego), (b) "Intermezzo in D Minor" (Rex de Calros-Rego), (c) "March Humoresque" (Dohnanyi), on a ground bass. 4.20: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.30: A talk, prepared by J. C. Patterson. 4.45: Stock Exchange, third call. 4.47: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 5.0: "Big Ben"; close. Note: During the afternoon a description of the Australian Polo Cup, played at Kensington Racecourse.

### EARLY EVENING SESSION

Announcer: A. S. Cochrane.  
5.30: The chimes of 2FC. 5.35: The children's session, conducted by the "Hello Man"; letters and stories; music and entertainment; Madame Ada Baker's pupils—Duet, "Serenade in Summer" (Denza), Bruce and Leslie; recitations by Roma; song, "Mister Shadow Man" (Scott), Little Bessie violin duets, "Andantino" (Lemaire), "The Pony Race" (Krogmann), played by Flossie and Audrey. 6.30: Dalgety's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Rugby wireless news. 6.55: Late sporting news by the 2FC Racing Commissioner. 7.0: "Big Ben"; late news service. 7.10: From Farmer's Restaurant—Items by the Dance Band.

### EVENING SESSION

Announcer Laurence Halbert.  
Accompanist: Ewart Chapple.  
7.40: Popular music. 7.45: Programme announcements. 7.48: A musical item. 7.52: James Peddie, F.R.I.B.A., will continue his series of talks on architecture. 8.0: "Big Ben"; Cec Morrison's Dance Band. 8.15: Alf Lawrence and Nell Crane, entertainers. 8.25: Foreword to the next item. 8.27: From the ballroom of Government House—  
Elise Steele, violinist—  
(a) "Siciliano and Gigue" (Arne).  
(b) "Sarabande" (Froberger).  
(c) "The Dance of the Princes Newsd-Je" (arr. Craxton).  
(d) "Gavotte Variata" (Pugnani-Corti).

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Ernest M'Kinlay, tenor—  
(a) "On Wings of Song" (Mendelssohn).  
(b) "Ständchen" (Schubert).  
(c) "Who is Sylvia?" (Schubert).  
Madame Sonya Michell, pianoforte solo—  
(a) "Rhapsody" (Dohnanyi).  
(b) "Evening in Seville" (Niemann).  
(c) "Orientale Etude" (Szantó).  
Elise Steele, violinist—  
(a) "Nocturne" (Lil Boulanger).  
(b) "Cortège" (Lil Boulanger).  
(c) "Chant de Rozane" (Lzzymanowski-Kochanski).  
(d) "Danse Espagnole" (De Falla-Kreisler).  
Ernest M'Kinlay, tenor—  
(a) "O Souverain, O Juge, O Pere" ("Le Cid," Massenet).  
(b) "Jeunes Fillettes" (Weckerlin).  
(c) "Bois Epais" (Lully).  
Madame Sonya Michell, pianoforte solo—  
(a) "Nocturne" (Chopin).  
(b) "Waltz" (Chopin).  
(c) "Barcarolle" (Rubinstein).  
(d) "Rhapsody" (Liszt).  
9.27: From the studio—weather report.  
9.28: Studio Dance Band, conducted by Cec Morrison.  
9.58: Alf Lawrence and Nell Crane, entertainers.  
10.8: Studio Dance Band, conducted by Cec Morrison.  
10.23: Late evening news service.  
10.28: Weather report.  
10.30: National Anthem.  
Close.

## 2BL

### MORNING SESSION

Announcer: A. C. C. Stevens.  
8 a.m.: G.P.O. Chimes; weather report. State and Metropolitan. 8.3: Studio music. 8.15: G.P.O. chimes; news and information service from the "Daily Telegraph Pictorial." 8.45: 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. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield; talk on Infant Welfare by Nurse May. 12.0: G.P.O. chimes, special ocean forecast and weather report. 12.3: Pianoforte reproduction. 12.30: Shipping and mails. 12.35: Market reports. 12.48: "Sun" midday news service. 1.0: G.P.O. chimes; The Two Rascals. 1.30: Talk to children and special entertainment for children in hospital by Uncle Steve. 2.0: G.P.O. Chimes. Close down.

### AFTERNOON SESSION

Announcer: Basil Kirke.  
Accompanist: G. Vern Barnett.  
3.45: G.P.O. chimes; The Two Rascals. 3.52: Studio items. 4.0: G.P.O. chimes; studio music. 4.15: From the studio, Captain A. C. C. Stevens, "The Wonders of Kenya." 4.30: The Two Rascals 4.37: Frank Botham, baritone—(a) "Sea Fever" (Ireland). (b) "Gypsy Dan" (Russell). 4.44: The Two Rascals. 4.52: Bertina Waters, soprano—(a) "The Rose over the Way" (Brady). (b) "Sing, Joyous Bird" (Phillips). 5.0: G.P.O. chimes; The Two Rascals. 5.7: Popular music. 5.24:

Producers' Distributing Society's Poultry Report. 5.27: 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: The Instrumental Trio—(a) "Sylvan Scenes" (Fletcher). (b) "Second Little Waltz" (Scott). (c) "That's How I Feel about You" (Gottler). (d) "Tell Me More" (Gershwin). (e) "This Hour with You" (Cooper). (f) "Trees" (Rasbach). 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 reports; grain and fodder report ("Sun"); dairy produce report ("Sun"). 7.25: Mr. Plm 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.  
Light Orchestra—  
(a) "Pnapsodie Russe" (arr. Nussbaum).  
(b) "Bohemian Suite" (Hume).  
(c) "By Silent Hearth" (Wagner).  
8.20: Mr. Optimist and Mr. Pessimist.  
8.30: Light Orchestra—  
Ballet Suite, "La Source" (Delibes).  
8.45: Hazel M'Pherson, contralto—  
"Iolanthe" (Sullivan).  
9.0: G.P.O. chimes; weather report.  
9.1: James Donnelly, songs at the piano.  
9.7: C. R. Dexter, a talk on general talking.  
9.22: Harry Croot, baritone.  
9.29: Light Orchestra—  
"Lohengrin" (Wagner).  
9.44: Hazel M'Pherson, contralto.  
9.51: Late "Sun" news service.  
9.56: Studio Dance Band, conducted by Cec Morrison.  
10.6: Billee Cresswell, popular vocalist.  
10.11: Studio Dance Band, conducted by Cec Morrison.  
10.21: Billee Cresswell, popular vocalist.  
10.28: Late weather report.  
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.

## 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. 11.45: Close down. 2.0: Music. 2.5: Women's radio service, by Mrs. Dorothy Jordan. 2.50: Music. 3.30: Close down. 5.30: Children's session, by Uncle George. 7.0: Music. 7.45: Feature story. 8.0: Miss Ethel Muller, contralto. 8.7: Instrumental Trio. 8.15: Mr. Len Howell, tenor. 8.22: Symphony Orchestra. 8.30: Miss Gwen Selva, soprano. 8.40: Humorous Interlude by Mr. Jack Win and Mr. Heath Burdock. 8.45: Address. 9.0: Weather report. 9.3: Mr. Clement Hosking, baritone. 9.15: Symphony Orchestra. 9.23: Miss Ethel Muller, contralto. 9.33: Humorous Interlude by Mr. Jack Win and Mr. Heath Burdock. 9.38: Instrumental Trio. 9.43: Mr. Len Howell, tenor. 9.53: Miss Gwen Selva, soprano. 10.3: Instrumental music. 10.30: Close down.

## 2UW

### MIDDAY SESSION.

12.30: Request numbers. 1.0: G.P.O. clock and chimes. Music. 1.15: Talk on Home-craft, by Pandora. 1.40: Music and request numbers. 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: Music. 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, June 28

## 3LO

### EARLY MORNING SESSION

7.15: Morning melodies. 7.20: Morning exercises to music. 7.30: Stock reports: Stock Exchange Information: general news; shipping and sporting information. 8.0: Melbourne Observatory time signal. 8.1: Morning melodies. 8.15: Close down.

### MORNING SESSION

11.0: 3LO's Specialities. Toasted Cheese. 11.5: Miss I. V. Crawford will continue her series—"Practical Psychology." 11.25: "As Fate" will speak on "Fashions." 11.45: Under the auspices of the Department of Health, Dr. Merriless will speak on "Health and Food."

### MIDDAY SESSION

12.0: Melbourne Observatory time signal. 12.1: British Official Wireless news from Rugby; Reuter's and the Australian Press Association cable; "Argus" news service. 12.15: Newmarket stock sales; special report by the Associated Stock and Station Agents, Bourke Street, Melbourne. 12.20: The Station Orchestra—"Slavonic Rhapsody" (Friedman). 12.25: Linda Wald, soprano—"Prelude" (Landon Ronald). "Daffodil Gold" (Robertson Hodgson). 12.35: Stock Exchange Information: metal prices received this day from the London Stock Exchange by the Australian Mines and Metals Association. 12.40: The Station Orchestra—"Dance Revels" (Phillips). 12.45: Jack Barty, comedian—"Whimsicalities." 12.57: The Station Orche. ra—"Moszkovskiana." 1.6: Meteorological Information: weather forecast for Victoria, New South Wales, South Australia and Tasmania; ocean forecasts; river reports; rainfall. 1.12: The Station Orchestra—"Dance Revels" (Phillips). 1.22: Linda Wald, soprano—"If I were a Lark" (Clutsum). "Shepherd's Cradle Song" (Somerville). 1.30: The Station Orchestra—Selection, "Peggy Ann" (Rodgers). 1.45: Jack Barty, comedian—"Five Minutes' Fun." 1.50: Close down.

### AFTERNOON SESSION

Announcer: Frank Hatherley. Accompanist: Agnes Fortune. 2.15: The Station Orchestra—Overture, "Sicilian Vespers" (Verdi). 2.23: Wilfrid Thomas, bass—"The Month of May" (Schumann). "I Will Not Grieve" (Schumann). "Moonlight" (Schumann). 2.39: The Station Orchestra—"Favourite Classics" (Schubert). 2.53: Morte Walsgott, contralto—"Four by the Clock" (Mallinson). "Slow Horses Slow" (Mallinson). 3.0: Miss Frances Fraser—"Just So" Stories for Grown-ups. 3.15: The Station Orchestra—"Suite of Four" (Saenger). 3.24: Agnes Fortune, piano—Sonata Op. 28. First Movement (Beethoven). 3.29: The Station Orchestra—Second Selection—"Lilac Time" (Schubert). 3.37: Tom Semple, tenor—"In Summertime on Breodon" (Peel). "My Lovely Cella" (Monro). 3.44: The Jedral Trio (Alva Hattenbach, violin; Edna Hattenbach, cello; John Simons, piano)—"Andante Religioso" (Thome). "Gavotte" (Martini). Alva Hattenbach, violin—"Souvenir" (Drdia). "Moment Musical" (Schubert-Kreisler). Jedral Trio—"Menuetto" (by request) (Beethoven). "Doll Dance" (by request) (Poldini). "The Old Refrain" (Brandt-Kreisler). 4.10: Morte Walsgott, contralto—"Farewell to Summer" (Johnson). "Dew in the Heart of a Rose" (Landon Ronald). 4.17: The Station Orchestra—Selection, "Barber of Seville" (Rossini). 4.26: Wilfrid Thomas, bass—"When the Flame of Love's Desire" (Bizet). "When the Sergeant-Major's on Parade" (Londraff). 4.32: The Station Orchestra—Intermezzo, "Popples" (Fredk. Hall). "Venetian Reverie" (Fredk. Hall). 4.38: Tom Semple, tenor—"Oh, Lovely Night" (Landon Ronald). "Go No! Happy Day" (Bridge). 4.45: News service: Stock Exchange Information: announcements.

### EARLY EVENING SESSION

5.46: Announcements and birthday greetings. 6.15: Stories for the children, "Cornelia" of the "Sun News-Pictorial" will speak to the children. 6.35: Captain Donald MacLean will continue his series of adventure stories.

### 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. Borett Ltd. Rabbit prices. River reports, Rainfall. Weather synopsis. Market reports by the Victorian Producers' Co-operative Company Ltd. Farm and dairy produce and carcass meat reports. Market reports of fruit by the Victorian Fruitgrowers' Association. Retail prices. Wholesale prices of fruit by the Wholesale Fruit Merchants' Association. Citrus fruits. 7.50: News session. 7.43: Birthday greetings. 7.45: Out of the Past. 7.46: Under the auspices of the Department of Agriculture, A. J. Gill, Senior Herd Tester, will speak on—"Young Farmers' Clubs." 8.0: A Maker of History.

### NIGHT SESSION.

8.15: Collingwood Citizens' Band—March—"The Australian Light Horse." Cornet solo, "Ave Maria." March, "Le Retour." 8.30: Wilfrid Thomas, bass, will give a short recital from the songs of Schubert, prefaced by some explanatory remarks—"Serenade." "The Phantom Double." "The Erl King." 8.42: Collingwood Citizens' Band—Descriptive Fantasia—"The Smithy in the Woods." "Mingie in G" (Beethoven). 8.52: Linda Wald, soprano—Request Numbers. 9.0: Harold Elvins, piano—"Chaconne" (Debols). "Baccarolle" (Bachmaninoff). "Caprice" (Gluck-Saint-Seens).

"Spinning Chorus" (Wagner-Liszt). 9.20: Wilfrid Thomas, bass—"Sea Fever" (John Ireland). "O So White, So Soft, So Sweet is She" (Fredk. Dellius). 9.25: The Jedral Trio (Alva Hattenbach, violin; Edna Hattenbach, cello; John Simons, piano)—In a programme made up entirely of request numbers.

### IN LIGHTER VEIN

9.35: Linda Wald, soprano—"Summer's Here" (Asplnall). "Yellow Boreen" (Somerville). 9.42: The Collingwood Citizens' Band—Selection, "The Vagabond King." 9.52: Rita Hillier, entertainer—"Meet the Boy Friend" (Tobias) Selected. 10.0: News service. British Official Wireless news from Rugby. Meteorological Information: Announcements. 10.10: Collingwood Citizens' Band—Prelude and Mazurka from "Coppella." 10.18: French Bros. banjosts—"Avalon Town." Selected. 10.22: Eric Welch will speak on to-morrow's races at Moonee Valley. 10.32: Rita Hillier, entertainer—"Let the Sunshine Enter your Heart." Selected. 10.38: French Bros. banjosts—"A Little Town" Selected. 10.46: Ern Hall's Radio Revelers, vocal refrains by Hugh Fuxham—"Do You" (Plantadosi). "Pa's Old Hat" (Guy). "Colombo" (Nichols). "I Fell Head Over Heels in Love" (Thayer). "Sonny Boy" (Brown). "Rally of My Dreams" (Kernell). "You're a Real Sweetheart" (Friend). "The Tilt Trot" (Pensos). 11.30: God Save the King.

## 3AR

### MORNING NEWS SESSION

10.0: G.P.O. Clock says "Ten." 10.1: Market reports: farm and station produce, fruit, fish, and vegetables. 10.25: Shipping reports: ocean forecasts. 10.30: Mail notices: express train information. 10.35: News service. 10.59: Weather forecast.

### MORNING MUSICAL SESSION

11.0: Music. 11.30: Cortot, pianoforte: Tubaud, violin; and Casals, cello—"Trio D Minor, Op. 49" (Mendelssohn) 12.5: Ballads. 12.29: British Official Wireless news: announcements. 12.30: Close down.

### AFTERNOON SESSION

3.0: Recordings. 4.30: Close down. EVENING SESSION 6.0: Recordings. 7.10: News service: announcements. 7.20: Recordings.

### NIGHT SESSION

8.20: Did You Know That. 8.30: Community Singing, transmitted from the Town Hall, Collingwood. Ern. Hall's Radio Revelers, with Hugh Fuxham, assisted by Jack Barty, comedian. 10.20: News service. Announcements. 10.30: God Save the King.

## 4QG

### EARLY MORNING SESSION.

7.43: Time signals. 7.45: News service. 8.0: Records. 8.15: News service. 8.30: Close down.

### MORNING SESSION.

11.0: Music. 11.5: Social News. 11.15: Lecturette. A cookery and household talk, by "The Etiquette Girl." 11.30: Music. 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: The Studio Orchestra, overture, "Le Chevalier Breton" (Hermann) Salse, "Lucille Love" (Olman); dance intermezzo, "Laughing Eyes" (Finck); caprice, "In the Starlight" (Hueter); rag step, "Live Wires" (Shepherd). 3.20: Organ recital by Mr. Geo. Sampson, F.R.C.O., City Organist. 4.0: Studio Orchestra, entr'acte, "A Voice in the Wilderness" (Russell); march, "The Glencoe" (Hayes). 4.10: Records. 4.15: News. 4.30: Close down.

### NIGHT SESSION.

A programme arranged by Jim Morgan. Accompanist: Claude Wearne, L.A.B. Instrumental Trio (Otto Riess, violin; Gilbert Drover, cello; Claude Wearne, piano). "Duetto" (Mendelssohn). Melody Four. Vocal quartette, "Where My Caravan Has Rested" (Lohr). Bobbie Irwin, soprano. "Bird of Love Divine" (Haydn Wood). Malsie Doherty, A.L.C.M., and Claude Wearne, L.A.B., pianists. Pinnoforte duet, "Valse de Concert in A Flat" (Moszkowski). Bob Jones, monologist. Musical Monologue, "His First Long Trousers" (Guest). Jazz Trio (Claude Wearne, piano; A. Doherty, banjo; V. Axelby, guitar). "Some Day, Somewhere" (Rapee). Otto Riess, violinist. "Lied Ohne Worte" (Mendelssohn-Kreisler).

Jim Morgan, baritone. "Ave Maria" (Pavane Cooper), with violin obbligato by Otto Riess. Claude Wearne, L.A.B., pianist. "To a Memory" (Wearne). "Crescendo" (Fackson). Arthur Smith, tenor. "Believe Me" (Irish). Vince Axelby, steel guitar. "Nearer, My God, to Thee" (arr by Axelby). Viva Crowe, contralto. "Down Here" (Max Brenet). "My Treasure" (Mathias Bart). Instrumental Trio. "Serenade" (Schubert). Will Davies, bass. "Big Ben" (Ponten). Elona Slater, elocutionist. "Memories" (P. Cheyne). 9.0: Metropolitan weather forecast and R.A.C.Q. information.

Don Fringle, tenor. "Pierdina" (Kraner). C. Wearne, piano, and Vince Axelby, guitar. "Plantation Melodies." Otto Riess, violinist. "Slumber Song" (Haydn Wood). Ern. Higginbotham, baritone. "Nirvana" (Stephen Adams). Jazz Trio. "Beautiful" (Gillespie). Gilbert Drover, cellist. "Cello solo, selected. Elona Slater, soprano. "You've Got Your Mother's Eyes" (Drummond). Bob Jones, elocutionist. "Obsession" (Braley). "Just Plain Dog" (Hazard). Claude Wearne. "Piano Jazz, 'Sally of My Dreams" (Kernell). Jim Morgan, baritone. "A Castilian Lament" (Del Riego). Melody Four, vocal quartette. "Comrades in Arms" (Adams). Instrumental Trio. "Flowers" (Godfrey Newark). Arthur Smith, tenor. "Mary" (Richardson). Arthur Doherty, banjost. "Just Once Again" (Donaldson). Ern. Higginbotham, baritone. "Lorraine" (Sanderson). Don Fringle, tenor. "I Hope" (Gerald Jonas). Will Davies, bass. "The Wind Mill" (Nelson). Quintette (C. Wearne, piano; O. Riess, violin; G. Drover, cello; V. Axelby, guitar; A. Doherty, banjo). "You're a Real Sweetheart" (Friend). 10.30: News. Weather. Close down.

## 5CL

### AFTERNOON SESSION

3.0: Chimes. 3.1: Programme review and announcements. 3.10: Modern melodies, by Mademoiselle Columbia; "Mollie Warden, soprano, "Daffodil Gold" (Hodgson). "Midsummer Lullaby" (Ed. M'Dowll); Cedric Sharpe, cellist, "La Paloma" (Yradier). "Shepherds, Hey" (Percy Grainger); Arthur Douglas, Scotch comedian, will entertain you; more modern melodies by Mademoiselle Columbia; Mollie Warden, soprano, "There Are Fairies at the Bottom of Our Garden" (Liza Lehmann). "Cherry Ripe" (C. E. Ford); The Hawaiians, "Aloha-oe," "Minnehaha Melody Waltz"; Arthur Douglas, Scotch comedian, will entertain you again; popular numbers by popular artists, presented by Mademoiselle Columbia. 4.45: An educational talk on "Timber: Scientific Investigation of Insect Ravages." 4.55: Stock Exchange. 5.0: Close down.

### EVENING SESSION

6.0: Chimes. 6.1: Birthday greetings, correspondence, songs and stories, by "Periwinkle." 6.30: Recordings. 6.45: 5CL's sporting service, supplied by "Silvius." 7.0: Chimes. 7.1: Senior Birthday League greetings. 7.2: Stock Exchange. 7.6: General market reports. 7.10: "Mo" Manning on "Football." 7.25: Marcelle Berardi, "French for All." 7.40: A. Grenfell Price, M.A., F.R.G.S., will continue his series of talks, "Pioneers of Australia: Torres."

### NIGHT SESSION

8.0: Chimes. 8.10: Boake-Smith's Palais Royal Band. "Mexican Serenade" (Terese). "Flower of Love" (Dreye). "Girl of My Dreams" (Clapp). 8.20: Mollie Warden, soprano. "Lackaday" (Ernest Granholm). 8.25: Boake-Smith's Palais Royal Band. "Beautiful" (Shay). "I Just Rode Alone" (Trent). "A Soldier's Dream" (Pollack). 8.35: Arthur Douglas. 8.35: Boake-Smith's Palais Royal Band. "Dream House" (Davis). "All Be Yourself in the Moonlight" (Wallis). "Sometimes I'm Happy" (Youmans). 8.45: Ruben Eisdell, tenor. "Come, Sing to Me" (Thompson). 8.49: Boake-Smith's Palais Royal Band. "I Can't Do Without You" (Berlin). "Fountain of Memories" (Akst). "My Risebirds Are Bluebirds Now" (Friend). 9.5: C. Snagatz. A short Australian story. 9.2: Meteorological information, including semaphore tides. 9.3: Overseas grain report. 9.4: Boake-Smith's Palais Royal Band. "High Up on a Hilltop" (Bae). "Forty-seven Ginger-headed Sailors" (Saronj).

- 9.14: "Bluebird, Sing Me a Song" (Davis)
- 9.14: "Dolly Warden, soprano.
- 9.17: "Robin Sings" (Ed. M'Dowell)
- 9.17: "Boke-Smith's Palais Royal Band.
- "Power of Love" (Dryer).
- "Laugh, Clown, Laugh" (Lewis).
- "Bouquet of Memories" (Aksi).
- 9.21: Arthur Douglas.
- 9.20: "Boke-Smith's Palais Royal Band
- "Mine, All Mine" (Steph).
- "Lily of Laguna" (Stuart).
- "Rickety, Rickety Shack" (Tobias).
- 9.46: Robert Radford, bass.
- "Drake Goes West" (Sanderson).
- 9.46: "Boke-Smith's Palais Royal Band.
- "Mother, I Still Have You" (Johnson).
- "Old Man Sunshine" (Dixon).
- "That Saxophone Waltz" (Bisk)
- 9.43: O. H. Szazelle.
- 10.1: In a story, "No News: or What Killed the Dog?"
- 9.54: "Boke-Smith's Palais Royal Band.
- "Alabama Stomp" (Johnson).
- "Old-fashioned Locket" (Wimbrow).
- "Aralon Town" (Brown).
- 10.6: Mollie Warden, soprano.
- 10.6: "Just You and I" (Ruby Reynolds Lewis).
- 10.7: "Boke-Smith's Palais Royal Band
- "Just Like a Melody Out of the Sky" (Donald-gon).
- "Glad Rag Doll" (Tellen).
- 10.15: News service.
- 10.30: SCL's sporting service, supplied by "Silvius."
- 10.30: "Boke-Smith's Palais Royal Band.
- "Promise Me" (Van Cooths).
- "With My Honey and Me" (Tobias).
- "Someway, Somewhere" (Kings).
- "Out of the Dawn" (Donaldson).
- "Because My Baby Don't Mean Maybe Noa" (Donaldson).
- "I Tell Herd Over Reels in Love" (Thayer).
- "Suzanne's Queaking Shoes" (Wergall).
- "Merry Widow" (Lehar).
- "Anything You Say" (Donaldson).
- "Was It a Dream?" (Cudlow).
- 11.0: Close down.

**6WF**

10.8: Tune in: gramophone and phonograph records from the studio. 11.0: Close down. 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 from the studio, items by the Radio Trio, comprising Miss Edna Waterman (cello), Miss Leah Waterman (violin), Miss Audrey Dean (piano). 2.0: Close down. 3.30: Tune in. 3.35: Musical programme relayed from the Primrose Cafe de Luxe. 4.30: Close down. 6.45: Tune in. 8.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Radio Trio. 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: Music and song from the studio, items by the following artists:—Miss Phyllis Browning Turner, contralto; Miss Marie Will Godwin, soprano; Signor Palmetto, tenor; Miss Zippa Feldman, violinist; Miss Audrey Dean, pianiste. 8.50: Late news items, by courtesy the "Daily News" Newspaper Co., Ltd.; station announcements; ships within range announcement; late weather bulletin. 8.58: Talk, "Gardening," 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 6.45 p.m.

**7ZL**

**EARLY EVENING SESSION.**  
6.15: Recordings. 8.30: "The Story Lady." 7.0: Answers to letters and birthday greetings by "Uncle David" and "The Story Lady." 7.10: News service; railway auction produce sales, held at Railway; Tasmanian district weather report; announcements.

**EVENING SESSION.**  
7.15: Sid Jones will speak on "Football."  
7.30: A studio concert by 7ZL artists and recordings.

- Duet, Doris M'Coubric, contralto, Alice Thorne, soprano—
- "In Spring Time" (Newton).
- "In the Garden of My Heart."
- 7.37: Keteby's Orchestral Concert—
- "Chai Tomano," Gipsy Overture, Parts 1 and 2 (Keteby).
- 7.44: L. Maddock, baritone—
- "She is far from a Land" (Lambert).
- "Sally Roses" (Bostelmann).
- 7.51: Reginald Coxe-Custard's organ solo—
- "Fugue in G Minor" (Bach).
- "Prelude in G Minor" (Bach).
- 7.58: Jean Hibbard, soprano—
- "Absent" (Metzalf).
- "Nothin' but Love" (Bond).
- 8.5: Mischa Elman, violin solo—
- "Country Dance" (Elman).
- "Hungarian Dance" (Jochsim).
- 8.12: Duet, Doris M'Coubric, contralto, Alice Thorne, soprano—
- "Just Awaiting for You" (Bond).
- "Nocturne" (Denza).
- 8.19: W. H. Squire, cello solo—
- "Melodie" (Squire).
- 8.22: L. Maddock, baritone—
- "Less than the Dust" (Pinden).
- "The Two Grenadiers" (Schumann).
- 8.25: Toscha Seidel, violin solo—
- "Humoresque" (Dvorak).
- "Meditation—Thais" (Massenet).
- 8.32: Jean Hibbard, soprano—
- "I Love the Moon" (Rubens).
- "Bird of Love Divine" (Wood).
- 8.39: Johann Strauss and Symphony Orchestra—
- "The Gipsy Baron" parts 1 and 2.
- 8.45: J. M. Counsel, An hour with the Old Masters. "The History and Development of Music."
- 8.45: News session.
- 10.0: Chimes.
- 10.1: Close down.

# AT LAST!



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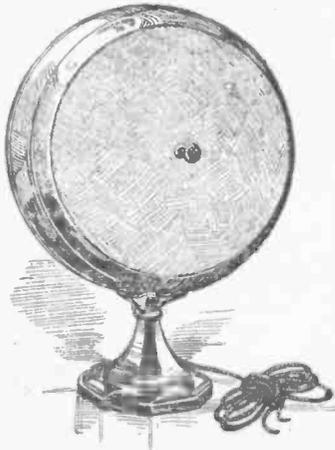
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## 2FC

### 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; inter-State 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 and Laurence Halbert.

12.0: "Big Ben" and announcements. 12.2: Stock Exchange information. 12.4: Studio music. 12.10: "Sydney Morning Herald" news service. 12.15: Rugby wireless news. 12.20: Studio music. 12.30: "Sydney Morning Herald" news service. 1.10: From Canterbury—Description of the races in the running. During intervals, from the Studio, items by the "Gleeful Three." 4.45: From the Studio—Complete sporting and racing resume. 5.0: "Big Ben." Close.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

5.30: The chimes of 2FC. 5.35: The children's session, conducted by the "Hello Man"; letters and stories; music and entertainment. 6.40: Stock Exchange information. 6.43: Weather and shipping news. 6.45: 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) "Prelude in C Sharp Minor" (Rachmaninoff), (b) "The Pirates of Penzance" (Sullivan), (c) "An Old Adobe" (Schertzinger), (d) "Song of the Volga Boatman" (arr. Lake), (e) "Serenade" (Herbert).

### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Popular music.  
7.45: Programme announcements.  
7.48: A record recital.  
8.0: "Big Ben"; Blue and Gold Dandies revue—successful competitors in the recent Radio Elstedford.  
8.30: Carlos Fakola, novelty pianist.  
8.37: Harrison White, banjo solos—  
(a) Solo, "Banjo Vamp" (Grimshaw).  
(b) Selection from the "Desert Song" (Romberg) (arr. White), first time played on banjo.  
8.44: Blue and Gold Dandies revue.  
9.14: Weather report.  
9.15: Carlos Fakola, novelty pianist.  
9.22: Harrison White, banjo solos—  
Two violin solos played on the banjo—  
(a) "Moonlight Sonata," 1st Movement (arr. White).  
(b) "Salut d'Amour" (Elgar).  
9.29: From the Hotel Australia—Cec. Morrison's Dance Band.  
9.42: From the Studio—Rae Foster, popular vocalist.  
9.47: From the Hotel Australia—Cec. Morrison's Dance Band.  
10.0: From the Studio—Rae Foster, popular vocalist.  
10.7: Late "Evening News" service.  
10.15: From the Hotel Australia—Cec. Morrison's Dance Band.  
10.28: From the Studio—Late weather report.  
10.30: From the Hotel Australia—Cec. Morrison's Dance Band.  
10.57: From the Studio—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. C. Stevens.

8 a.m.: G.P.O. chimes; weather report—State and metropolitan. 8.3: Studio music. 8.15: G.P.O. chimes; news and information service from the "Daily Telegraph Pictorial." 8.45: 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. 1.0: "Sun" news service. 1.10: Studio music. 1.30: "Sun" news service. 1.40: Studio music. 2.0: G.P.O. chimes. Close down. Note.—Race results from Canterbury will be broadcast by arrangement with "Sun" Newspapers.

### AFTERNOON SESSION.

Announcers: Eric Bessemer (Studio), Basil Kirke (Sports Ground).

Accompanist: Kathleen Roe.

2.55: From the Sydney Cricket Ground, description of the Rugby Union football match. All Blacks v. N.S.W. During intervals in the play popular music from the studio by the "Two Rascals." Progress scores of the polo matches; the final of the Australian Cup and the commencement of the Countess of Dudley Cup. 4.45: From the Studio: Complete sporting resume. 5.0: G.P.O. chimes. Close.

### 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 service. 6.40: 2BL Dinner Quartette—(a) "March of the Toys" (Herbert), (b) "Rigoletto" (Verdi), (c) "Anitra's Dance" (Grieg), (d) "The Desert Song Valse" (Romberg). 7.7: Complete sporting and racing resume. 7.30: 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: Basil Kirke.

Accompanist: G. Vern Barnett.

8.0: G.P.O. chimes; Kalua Trio, instrumental—  
"Echoes of Hawaii" (arr. Scott)  
8.10: Ambrose Bourke, baritone.  
8.17: The Troubadours.  
8.29: Kalua Trio, instrumental—  
"Kauais Breezes" (arr. Garrett)  
8.41: Ambrose Bourke, baritone.  
8.48: The Troubadours.  
8.58: A. W. Forrest, mouth organ solos—  
(a) "Love's Old Sweet Song" (Molloy).  
(b) "Sonny Boy" (Jolson).  
9.5: Weather report.  
9.7: Kalua Trio, instrumental—  
(a) "Honolulu," March Medley (arr. Mison).  
(b) "Me and the Man in the Moon" (Monaco).  
9.14: A theatrical transmission from one of Sydney's leading theatres.  
9.34: From the Studio—The Troubadours  
9.44: Kalua Trio—  
Selected.  
9.51: An eye-witness' impression of the contest at the Stadium to-night.  
10.6: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.  
10.28: From the Studio—Late weather report.  
10.30: 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.



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# Interstate Programmes, Saturday, June 29

## 3LO

### EARLY MORNING SESSION

7.15 to 8.10: See Friday.

### MORNING SESSION

11.0: The Strad Trio (Cecil Parkes, violin; Myra Montague, piano; Frank Johnstone, cello). 11.11: Wilfrid Thomas, bass—Request items. 11.18: Eric Welch will give the final selections for the Moonee Valley races, to-day. 11.28: Cecil Parkes, violin—“Valse Triste” (Sibelius), “Serenade” (Drda), “La Capricieuse” (Elgar), “Gavotte” (Bach). 11.40: Linda Wald, soprano—“Angels Guard Thee” (Goddard), “My Happy Garden” (Katharine Barry). 11.47: Myra Montague, piano—“Wegenlied” (Kjerulf), “Valse” (Sibelius), “Gavotte” (Karganoff). 11.54: The Strad Trio—“Drink To Me Only” (arr. Parkes), “Spanish Dance No. 4” (Moszkowski). 12.0: Melbourne Observatory time signal. 12.1: British Official Wireless news from Rugby; Reuter’s and the Australian Press Association cables. “Argus” news service. 12.30: The Radio Revelers—“Roses of Yesterday” (Berlin), “The Voice of the Southland” (Austin), “My Heaven is Home” (Collin). 12.39: Jack Barty, comedian—Comicalities. 12.38: Stock Exchange Information: Prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. 12.44: The Radio Revelers—“Pickin’ Cotton” (Henderson), “I’m on the Crest of a Wave” (Henderson), “Mother, I Still Have You” (Jolson). 12.53: Wilfrid Thomas, bass—“Reuben Ranzo.” Selected. 1.0: Meteorological information: weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecasts; river reports; rainfall. 1.6: The Radio Revelers: “Out of the Dawn” (Donaldson), “Paradise and You” (Pacay), “The Prune Song” (Crumit). 1.15: Linda Wald, soprano—“Gather Ye Rosebuds” (Sanderson). 1.18: The Radio Revelers—“Sincerely I Do” (Davis), “The Radio” (Friend). 1.24: Jack Barty, comedian—“Pleasanties.” 1.36: Description of baseball match, Carlton v. St. Kilda, at Carlton, by Percy Steel.

### AFTERNOON SESSION

1.58: Description by Eric Welch of Windarra Hurdie Race, 2 miles, Moonee Valley races. 2.5 and 2.35: Description of baseball match, Carlton v. St. Kilda, at Carlton, by Percy Steel. 2.28: Description of Chandos Handicap, 5 furlongs, Moonee Valley races. 2.45, 3.35, 4.5, 4.27, 4.55: Description by Rod McGregor of football match, Carlton v. St. Kilda, at Carlton. 2.57: Description of Travancore Steeplechase, 2 miles 8 chains, Moonee Valley races. 3.5, 3.45, 4.15, 4.45: Description of football match, Collingwood v. Footscray, at Collingwood, by Mel Morris. 3.25: Quarter-time scores. 3.27: Description of Deep Creek Handicap, 14 miles, Moonee Valley races. 3.53: Half-time scores. 3.57: Description of Marne Jumpers’ Flat Race, 1 mile 7 furlongs, Moonee Valley, races. 4.27: Description of Greenval’s Welter Handicap, one mile, Moonee Valley races. 4.35: Three-quarter time scores. 5.15: News service. 5.30: Final scores.

### EARLY EVENING SESSION

5.45: All sporting results. 6.0: Answers to letters and birthday greetings, and stories for the children. 6.40: Captain Donald MacLean will continue his adventure stories.

### EVENING SESSION

6.55: Market reports. 7.10: News session: final scores of football matches. 7.20: Birthday greetings. 7.24: Out of the Past. 7.25: Fredk. Chapman, A.L.S., F.O.S., Commonwealth Palaeontology, National Museum, will speak on “Sea Squirrels.” 7.40: A Maker of History. 7.41: Dr. J. A. Leach, D.Sc., will speak on “Fairy Wrens.”

### NIGHT SESSION.

Announcer: Renn Millar.

Accompanist: Agnes Fortune.

7.58: 3LO’s Weekly Tasmanian Letter from the “Courier,” Launceston. 8.0: Programme announcements. 8.1: The Station Orchestra—“Quilter.” “Eileen Pascoe-Webbe’s “Sunbeam Singers.” 8.10: Opening—The Company. Song, “Down in Georgia”—Audrey Tasker. Song, “An Old Guitar”—Vera Wilson. Song, “Good Morning, Brother Sunshine,”—Jean M’Lennan. Monologue, “Lickins”—Joan M’Connan. Song, “Little Rose of Love”—Hazel M’Donald. Duet, “Sincerity”—Mavis Yeomans and Eileen Pascoe-Webbe. Song, “Four Little Candles”—Wilma Wilson. Monologue, “Comfort”—Vera Wilson. Song, “Caller Herrin”—Joan M’Connan. Song, “Everywhere I Look”—Betty Jolly. Song, “Me and the Man in the Moon”—Alma M’Laughlin. Recitation, “A Girl with 39 Lovers”—Jean M’Lennan. Song, “Madonna Lilles”—Valda Knowles. Duet, “Yesterday”—Vera Wilson and Joan M’Connan. Song, “Sleep Little Coon”—Lealie Hoffman. Recitation, selected—Mavis Yeomans. Song, “Trees”—Eileen Pascoe-Webbe. Final—Sunbeam Singers. 9.10: The Station Orchestra—“Serenata” (Reiser). 9.15: Eric Welch will describe the night’s events at the Stadium. 9.30: The Record Feature of the week. 9.34: The Station Orchestra—“Ethiopian Rhapsody” (Hosmer).

9.44: Pat M’Lean, soubrette, will entertain.

9.50: The Station Orchestra—“Romance and Two Dances” (German).

10.5: Late Spelling.

10.15: The Station Orchestra—Suite, “Othello” (Coleridge-Taylor).

10.35: Jack Barty, comedian—“Just for Fun.”

10.37: The Station Orchestra—Selection, “The Prune Song” (Herbert).

10.42: Pat M’Lean, soubrette, will entertain.

10.50: Ern Hall’s Radio Revelers, with Hugh Huxham—

“When the Cot, Cot, Cotton Grows” (Kilien).

“Cinnamon Cake” (Bernard).

“My Fleurette” (Kimbrough).

“Avalon Town” (Brown).

“Snake That Thing” (Jackson).

“Glad Rag Doll” (Azer).

“You Are Wonderful” (Ash), Selected.

11.30: God Save the King.

## 3AR

### MORNING NEWS SESSION

10.0 to 10.58: See Friday.

### MORNING MUSICAL SESSION

11.0: Recordings. 11.50: British Official Wireless news: announcements; rates of exchange supplied by Thomas Cook and Sons. 12.0: Close down.

### AFTERNOON SESSION

3.0: The Station Orchestra—Overture, “Ika” (Doppel). 3.10: Jean Sinclair, contralto—“The Flight of Ages” (Bevan), “Kate Dalrymple” (Bevan). 3.17: The Station Orchestra—Selection, “Virginia” (Walter Tunbridge). 3.27: Wilfrid Thomas, bass—“The Hunting Horn” (Pezler), “Out on the Deer” (Zohr). 3.34: Trio (Edna Hattenbach, violin; Edna Hattenbach, cello; John Simons, piano)—Trio, “March from Athalie” (Mendelssohn), “Slavonic Dance” (Dvorak), cello, “Liebesträum” (Liszt-Squire), Trio, “Une Larme” (Moussorgsky), “Anitra’s Dance” (Grieg). 4.1: Jean Sinclair, contralto—“Summer Rain” (Wiley), “What o’clock?” (McGeoch). 4.11: The Station Orchestra—Selection, “Rose of Arab” (Morgan). 4.21: Wilfrid Thomas, bass—“The Post” (Schubert), “Murmuring Breezes” (Jensen). 4.28: J. Barille, flute, and A. Anderson, clarinet—Lo Here the Gentle Lark” (Bishop). 4.33: Guilford Cusker, violin—“The Month of April” (Henley). 4.37: Announcements. 4.40: The Station Orchestra—“Scenes Poetiques” (Godard), selection. “Oh, Lady, Lady.” 5.0: Close down.

### EVENING SESSION

6.0: Recordings. 7.10: News service: announcements. 7.30: Further eulphonies.

### NIGHT SESSION

8.0: Sporting results. 8.30: Coburg City Band—March, “Concordia.” “Queen Bess” (Rimmer). 8.40: Linda Wald, soprano—“A Garden is a Lovely Thing” (Del Riego). “The Second Minuet” (Besley). 8.47: Coburg City Band—March, “Duntroon” (Percy Code). “Hungarian Dance No. 1” (Brahms). 8.57: Herold Kynig, basso cantante—Selections from his repertoire. 9.4: Victor Stephenson, piano—“Scherzo B Minor” (Schumann). “At Eventide” (Schumann). “A Sketch” (Arensky). “Valse” (Melnikoff) (Rebikoff). “Wienlied” (Spendiarow). “Marche Militaire” (Schubert-Tausig). 9.24: Herold Kynig, basso cantante—Selections from his repertoire. 9.31: Coburg City Band—Selection, “La Traviata” (Verdi). 9.38: Linda Wald, soprano—“Villa” (“The Merry Widow”) (Franz Lehár). “Among the Willows” (Phillips). 9.45: Coburg City Band—“March, Cavalry of the Clouds” (Alford). 9.55: The Jedral Trio (Alva Hattenbach, violin; Edna Hattenbach, cello; John Simons, piano)—Trio, “Adagio from F Flat Major Trio” (Beethoven). Violin, “Spanish Dance in D” (Sarasate). Trio, “Serenade” (Widor). “Tango” (Albeniz). 10.20: News service. Announcements. 10.30: God Save the King.

## 4QG

### EARLY MORNING SESSION.

7.43 to 8.30: See Friday.

### AFTERNOON SESSION.

3.0 to 4.30: See Friday.

### EARLY EVENING SESSION.

6.18: “Queenslander” bi-weekly news service for distant listeners. 6.30: Bedtime stories, conducted by “Uncle Ben.” 7.0: To-day’s races in detail. 7.20: General sporting notes. 7.0: Sailing notes by Mr. Fred Smith.

### NIGHT SESSION.

8.0: Frank Warbrick, pianist. “Nocturne in B” (Chopin). “Rhapsodie” (Moore). Mrs. S. M. Fitzgerald, contralto.

“The Carnival” (Molloy). “Down the Vale” (Hatch). Dulcie Dunlop and Neville Raymond in a humorous sketch, “Packing Up.” B. F. Kelly, haustist. “Rossignolet” (Donjon). Monument and Harrow, in humorous sketches. Annie Adams, soprano. “The Sifting of Pearls” (Phillips). “Thank God for a Garden” (Riego). B. F. Kelly, haustist. “Papillon” (Kohler). “Bartarce” (Offenbach). Dulcie Dunlop and Neville Raymond in a humorous sketch. “The Author Dictates.” 9.0: Metropolitan Weather forecast. Dance numbers from Lennon’s Ballroom will be relayed, interspersed with records from the studio. 10.0: News: weather. Close down.

## 5CL

### AFTERNOON SESSION

2.0: Chimes. 2.1: During the afternoon description of League football by “Mae” Manning will be interspersed with Murray Bridge and Moonee Valley race results, and Sonora numbers. 5.0: Close down.

### EVENING SESSION

6.0: Chimes. 6.1: Birthday greetings, correspondence, songs and stories, by “The Wattle Lady.” 6.30: Recordings. 7.0: Chimes. 7.1: Senior Birthday League greetings. 7.2: Stock Exchange. 7.6: Recordings. 7.10: Rev. G. E. Hale, B.A., in an interesting talk, entitled “The Roadmaster.” 7.25: O. R. Riley in “Items of Interest.” 7.45: 5CL’s sporting service, supplied by “Silvius,” including Murray Bridge and Moonee Valley race results.

### NIGHT SESSION

8.0: Chimes. 8.10: Jean Finlay, pianist. “Giant Polonaise” (Chopin-Liszt). “Three Dream Dances, No. 1” (Coleridge-Taylor). 8.18: Mollie Warden, soprano. “The Blackbird’s Song” (Cyril Scott). “Oblivion” (de Fontenailles). 8.25: Harry Hitchkins, violinist. “Scene de Ballet” (De Beriot). “Twilight Dreams” (Mahfritz). 8.32: Arthur Douglas, pianist. 8.39: Jean Finlay, pianist. “Rosemary” (Frank Bridges). 8.45: From the Exhibition Building, wrestling. 10.0: From 5CL Studio. Mollie Warden, soprano. “Three Green Bonnets” (Guy d’Hardelot). “The Little Danzoni” (Ivor Novello). 10.7: Jean Finlay, pianist. “Valse Caprice” (Cyril Scott). “Danse Negre” (Cyril Scott). 10.13: Arthur Douglas, pianist. 10.20: 5CL’s sporting service, supplied by “Silvius,” including Murray Bridge and Moonee Valley race results. 10.30: Welcome to Young Australia League. Speaker: Major J. J. Simons, hon. director of the Young Australia League. West Australian members of the party will broadcast their experiences. 10.50: Recordings. 11.0: Close down.

## 6WF

10.0: Tune in: gramophone and phonograph records from the studio. 11.0: Close down. 12.0: Tune in: 12.3: Racing anticipations. 12.8: Pianoforte solos by Miss Audrey Dean. 12.44: Markets, news, etc. 1.0: Time signal. 1.1: Weather bulletin supplied by the Meteorological Bureau of West Australia. 1.2: Close down. 2.30: Tune in: sporting session, race results and quarter-time scores of the various football matches will be broadcast during the afternoon. 5.30 (approx.): Close down. 6.45: Tune in. 6.48: Bedtime stories by Auntie Amy. 7.12: Sports results. 7.30: Commercial and general information. 7.45: Music. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Musical programme from the studio—Miss Audrey Dean, pianist. 8.30: A relay from Temple Court Cabaret of dance music by Merv. Lyon and his Symphonic Orchestra. 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: Programme continued from Temple Court Cabaret and the studio. 10.30: Close down.

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## 7ZL

### EARLY EVENING SESSION.

6.0: All sporting results to hand. 6.30: “Uncle David.” 7.0: Answers to letters and birthday greetings by “Uncle David.” 7.15: News session.

### EVENING SESSION.

7.30: Roy Johnson will speak on—“Manual Training.” 7.45: J. M. Course will speak on—“European Affairs.” 8.0: G.P.O. clock chimes the hour. 8.6: A special studio concert. 9.30: News session. 9.45: Concert programme. 10.20: Close down.

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## Local Programmes, Sunday, June 30

### 2FC

#### MORNING SESSION.

Announcer: A. S. Cochrane.

- 10.0: "Big Ben" and announcements.  
 10.2: Studio music.  
 10.20: The Captain to His Comrados.  
 10.35: The Comrados' Bookshelf.  
 10.40: Studio music.  
 11.0: Fullerton Memorial Presbyterian Church: Morning Service, conducted by Rev. Geo. Cowie—  
 Organ Voluntary.  
 Doxology.  
 Scripture Sentence and Invocatory Prayer.  
 Hymn, "O God of Bethel, by Whose Hand."  
 Scripture Reading.  
 Solo.  
 Prayer.  
 Children's Address.  
 Children's Hymn—"When Mothers of Salem."  
 Announcements.  
 Offertory and Organ Voluntary.  
 Solo.  
 Lord's Prayer.  
 Hymn, "Nearer My God to Thee."  
 Sermon by the Rev. G. Cowie, B.A.  
 Hymn, "Courage, Brother, do not Stumble."  
 Benediction.  
 Voluntary.  
 12.15 (approx.): Close down.

#### AFTERNOON SESSION.

Announcer: C. R. Hall.

- 2.30: Programme announcements.  
 2.32: The Cheer Up Session, conducted by Uncle Frank.  
 3.0: "Big Ben." Studio music.  
 3.30: Organ recital.  
 4.40: W. F. Kay will speak on "The Eureka Stockade."  
 5.0: "Big Ben." Close.

#### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Kathleen Roe.

- 6.0: "Big Ben" and announcements.  
 6.2: An Hour with the Great Composers, arranged by Madame Evelyn Greig—"Symphony No. 1" in four movements (Beethoven).  
 Arranged for Two Pianos—  
 1st Pianoforte—Madame Evelyn Greig.  
 2nd Pianoforte—Kathleen Roe.  
 Song, Anne Mills—  
 "Entreat Me Not to Leave Thee" (Gounod).  
 Violin: Rene Rich—  
 "Finale from Violin Concerto" (Vieuxtemps).  
 Pianoforte—Madame Evelyn Greig—  
 (a) "Duetto" (Mendelssohn).  
 (b) "The Bees' Wedding" (Mendelssohn).  
 Songs: Anne Mills—  
 (a) "Evening Boat Song" (Schubert).  
 (b) "Dream World" (Dupac).  
 Violin: Rene Rich—  
 (a) "Reverie" (Vieuxtemps).  
 (b) "Country Dance" (Beethoven-Seis).  
 Pianoforte: Madame Evelyn Greig—  
 "Nocturne in D Flat" (Chopin).  
 7.0: From Sydney Unitarian Church: Evening Service, conducted by Rev. Albert Thornhill, M.A.—  
 Opening Voluntary—Mr. S. V. Clutson.  
 Hymn 92—"One Holy Church of God Appears."  
 Scripture reading from St. Luke's Gospel.  
 Soprano Solo, "Come Unto Me"—Gwen Foster.  
 Hymn 37—"Father of World and Soul."  
 Prayer, followed by Lord's Prayer (chanted).  
 Solo, "He Was Despised" (Handel)—Ann Wilson.  
 Announcements.  
 Hymn 114—"Bright and Fair the Golden City."  
 Sermon, "Our Citizenship"—Preacher, the Rev. Albert Thornhill, M.A.  
 Offertory.

- Hymn 112—"God Bless Mankind, We Pray."  
 Benediction and Vesper.  
 Concert Programme arranged by the  
 8.30: From the Trades Hall, Lithgow—  
 Lithgow Municipal Band.  
 Official Accompanist: Mrs. Harold Cox.  
 Conductor: Mr. Charles Lewins.  
 March: Lithgow Municipal Band—  
 "Mephistopheles" (Ord. Hume).  
 Song: James Simpson.  
 "I Hear You Calling Me."  
 Song: Mrs. Harold Josephs—  
 "No, No No" (Tito Mattei).  
 Sacred Number: Lithgow Municipal Band  
 "I'm Praying For You" (Caros).  
 Selection: Lithgow Municipal Band—  
 "The Desert Song."  
 Song: Mrs. Robert Arthur Brouff—  
 "The Lost Chord."  
 Song: Josiah Prior—  
 "Afton Waters."  
 Selection: Lithgow Municipal Band—  
 "Marilana" (Trussel).  
 Duet: Messrs. Josiah Prior and Robert Nicholson—  
 "Sylvia" (Sargant).  
 Song, Mrs. Thomas Simon—  
 "Down in the Forest" (Landon Ronald).  
 Cornet Solo: John Tougher—  
 "Songs of Araby."  
 Descriptive Number: Lithgow Municipal Band—  
 "Sliding Thro' the Rye" (Truman).  
 Song, Mrs. Margaret Lean—  
 "Spring's Awakening" (Sanderson).  
 March: Lithgow Municipal Band—  
 "Poing and Circumstance" (Elgar).  
 Song: Rita Lawless—  
 "Break o' Day" (Sanderson).  
 Song: Robert Nicholson—  
 "My Old Shako" (Trahere).  
 March: Lithgow Municipal Band—  
 "Palmer House" (Pettett).  
 10.28: From the Studio: Late weather and programme announcements.  
 10.30 National Anthem. Close.

### 2BL

#### MORNING SESSION.

Announcer: A. C. C. Stevens.

- 11.0: G.P.O. chimes. From St. Jude's Church, Randwick—Dedication Festival, service conducted by Acting Rector, Rev. George Polain, Th.L.; organist, Arnold Mote, B.A. Mus. Bac., F.R.C.O.  
 Processional Hymn, 601 A. and M., "The God of Abraham Praise."  
 Venite.  
 Psalm 145.  
 1st Lesson.  
 Te Deum.  
 2nd Lesson.  
 Benedictus.  
 Creed Prayers.  
 Anthem, "The Lord is My Light" (Parker).  
 Prayers, notices.  
 Hymn 242, "We Love the Place of God."  
 Sermon, the Rev. Dr. P. A. Micklem, M.A., Th. Soc.  
 Hymn 298.  
 Benediction.  
 Recessional Hymn, 379, "Now Thank We All Our God."  
 Closing Voluntary, "Festival March" (Mote).  
 12.15: From the Studio—"Sun" news service.  
 12.30: Studio music.  
 2.0: G.P.O. chimes. Close down.

#### AFTERNOON SESSION.

Announcer: Basil Kirke.

- 3.0: G.P.O. chimes. From the Sydney Town Hall, organ recital, by the City Organist, Ernest Truman.  
 3.30: From the Studio—Musical items.  
 3.40: From the Sydney Town Hall—Organ recital, by the City Organist, Ernest Truman.  
 4.10: From the Studio—A talk by Basil Kirke.  
 4.25: A record recital.  
 5.0: "Big Ben." Close.

#### EVENING SESSION.

Announcers: Basil Kirke and G. Vern Barnett.

- 6.0: G.P.O. chimes. Children's session, conducted by Uncle Bas.  
 7.0: From the Strathfield Presbyterian Church—Evening Service, conducted by Rev. Victor C. Bell—  
 Voluntary (organ).  
 Invocation.  
 Doxology.  
 Hymn.  
 Scripture.  
 Hymn.  
 Scripture.  
 Solo, Mrs. V. C. Bell  
 Hymn.  
 Prayer.  
 Announcements.  
 Anthem, "I Am Alpha and Omega"  
 Children's address.  
 Hymn.  
 Sermon, "Safety Last."  
 Benediction.  
 Hymn.  
 8.30: From the Regent Theatre—Organ recital, by Stanley Wallace.  
 8.50: From the Studio—Stanley Catlett, tenor.  
 8.57: From the Regent Theatre—Organ recital by Stanley Wallace.  
 9.17: From the Studio—Farnsworth Hall, violinist—  
 (a) "Song of India" (Rimsky Korsakov).  
 (b) "Liebesfreud" (Kreisler).  
 9.24: From the Regent Theatre—Organ recital, by Stanley Wallace.  
 9.44: From the Studio—Stanley Catlett, tenor.  
 9.51: Farnsworth Hall, violinist—  
 (a) "Melody" (Gluck).  
 (b) "Tambourin Chinois" (Kreisler).  
 9.58: To-morrow's programme.  
 10.0: National Anthem. Close down.

### 2GB

- 9.0: Address. 9.30: Address. 10.15: Organ music from St. Alban's Church, Regent Street, Sydney. 10.30: Morning service from St. Alban's Church. 12 noon: Music. 12.30: Close down. 3.0: Musical session. 5.30: Children's session, by Uncle George. 7.0: Lecture from Adyar House. 8.0: Music from studio. 8.15: Sacred concert, arranged by courtesy of Messrs. Winkworth and Son, piano solos by the Rosenkranz piano. 8.23: Mr. Cecil Chaseling, baritone. 8.30: Mr. Gregory Valentine, violinist. 8.38: Miss Gladys Aubin, soprano. 8.45: Mr. William Green, tenor. 8.52: Rosenkranz player piano. 9.0: Weather report. 9.1: Mr. Cecil Chaseling, baritone. 9.8: Mr. Gregory Valentine, violinist. 9.16: Miss Gladys Aubin, soprano. 9.23: Rosenkranz player piano. 9.28: Mr. William Green, tenor. 9.35: Close down.

### 2UW

- 10.30 a.m.: Music and request numbers. 1.0 p.m.: Close down. 5.30: Children's hour, conducted by Uncle Jack. 6.30: Close down. 7.0: Musical programme. 10.30: Close down.

## "B" Programmes for Saturday

### 2GB

- 3.0: Musical session. 5.30: Children's session, by Uncle George. 7.0: Request evening. 8.0: Instrumental and dance programme. 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.

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# Interstate Programmes, Sun., June 30

## 3LO

### MORNING SESSION

- 10.30: Bells from St. Paul's Cathedral.
- 10.45: Express train information: British official wireless news from Rugby; news from yesterday's papers.
- 11.0: Morning service from Australian Church, Russell Street, Melbourne. Dr. Charles Strong conducts service and preaches.  
Hymn 22, in Church Worship.  
Prayer.  
Chant.  
Anthem 92, "Thy Way is in the Sea."  
Scripture Reading.  
Recitation of the aims of the Christian Life.  
Prayer (Extemporary) and Responses.  
Hymn 88, in Supplement.  
Address.  
Hymn 57, in Supplement.  
Announcements and Offertory.  
Benediction and Responses.  
Organist, Mr. Charles Tuckwell  
Choir Principals:  
Miss Kitty Conly.  
Miss Sutton.  
Mr. H. Martin.  
Mr. George Mauer
- 12.15: Close down.

### AFTERNOON SESSION

- 2.0: Sonora recital of the world's most famous records.
- 3.0: Pleasant Sunday Afternoon from Central Mission, Wesley Church.  
Chairman, Rev. S. J. Hoban.  
Hymn No. 12, "Come Ye that Love the Lord."  
Prayer.  
Orchestral selection, G. M. Williams, Conductor  
Hymn No. 22, "How Sweet the Name of Jesus"  
Solo, Miss Freda Treweek.  
Orchestra.  
Solo, Miss Freda Treweek.  
Notices, Offering, Orchestra.  
Address: Hon. W. H. Edgar, M.L.O.  
Some Impressions of South Africa.  
National Anthem.  
Benediction.  
Orchestra.
- 4.30: Close down.
- 6.45: Shipping information.
- 6.47: Children's Hour.
- 6.47: Bells from St. Paul's Cathedral.

### EVENING SESSION

- 7.0: Evensong (Choral).  
Hymn (A. and M.).  
Sentence.  
Exhortation.  
General Confession.  
Absolution.  
The Lord's Prayer.  
Versicles and Responses.  
Psalms 27, 28, and 29.  
First Lesson.  
Magnificat.  
Second Lesson.  
Nunc Dimittis.  
The Apostles' Creed  
Collects and Prayers.  
Hymn.  
Sermon, Rev. J. J. Booth.  
"Renewal of Spices' Appeal."  
Hymn.  
Three Motets by Russian Composers  
The Blessing.

### NIGHT SESSION

- Brunswick City Band.  
Conductor, Hugh Niven.  
Announcer: Frank Hatherley.  
Accompanist: Mabel Nelson
- 8.30: Brunswick City Band—  
"Introduction to Faust" (Gounod).
- 8.40: Violet Sempie, contralto—  
"The Sapphic Ode" (Brahms).  
"Cradle Song" (Kreisler).
- 8.47: Professor Bernard Heinze, violin.  
Lindsay Biggins, piano.
- 9.10: Wesley Church Choir (under direction William G. James)—  
"Ave Maria" (Arcadelt).  
"Hear My Prayer" (Mendelssohn).  
Soloist, Madlle. Saffo Arno.  
"Gentle Night, O Descend" (Spohr)  
"Distracted with Care" (Haydn).
- 9.30: Brunswick City Band—  
Intermezzo, "The Wedding of the Rose" (Jessell)  
March, "The King's Review" (Humel).
- 9.40: Violet Sempie, contralto—  
"On the Steppes" (Gretchaninov).  
"In Questa Tomba" (Beethoven).
- 9.47: Brunswick City Band—  
Cornet solo, "My Prayer" (Squire)
- 9.52: News service; announcements.
- 10.0: God Save the King.

## 4QG

### MORNING SESSION

- 11.0: Morning service from St. Andrew's. 12.15: Close down.

### AFTERNOON SESSION

- 3.15: Band concert by the Brisbane Excelsior Band from the Botanic Gardens. 4.30: Close down.

### EARLY EVENING SESSION

- 6.0: Replies to letters, and greetings to little listeners. 7.0: Children's service from St. Andrew's Church of England.

### NIGHT SESSION.

- 8.30: Evensong from St. Andrew's Church of England.
- At the conclusion of the Church service, the Band concert, by the Brisbane Municipal Concert Band will be played from the Bandstand in Wickham Park.  
8.30: Band concert  
9.30: Close down.

## 5CL

### MORNING SESSION

- 10.45: Carillon of Bells from Adelaide Town Hall.
- 11.0: Chimes. 11.1: Divine Service from Archer Street Methodist Church. 12.10: British official wireless news. 12.15: Close down.

### AFTERNOON SESSION

- 3.0: Chimes. 3.1: A Pleasant Sunday Afternoon Service from Glencliff Congregational Church. 4.0: Close down.

### EVENING SESSION.

- 6.0: Chimes. 6.1: Birthday greetings, correspondence, songs and stories by "Periwinkle." 6.30: "The Bird Lady" and "The Sunshine Songsters." 7.0: Chimes. 7.1: Senior Birthday League greetings. 7.2: Divine Service from St. Peter's Cathedral. Preacher, The Lord Bishop.

### NIGHT SESSION.

- 8.30: A Special Programme.
- 9.40: Mr. P. H. Nicholls on "The Lady of 10 Downling Street—Miss Isabel MacDonald." 10.0: Close down.

## 6WF

- 10.25: Tune in. 10.39: Special half-hour for the enthusiastic listener. 11.0: Morning service relayed from the Salvation Army Fortnes. 12.15: Close down. 3.30 Tune in. 3.35: Musical programme from the studio, including items by Mr. and Mrs. Hammond. 4.30 Close down. 6.45: Tune in. 6.48: Bedtime stories by Mr. Robert Edmondson, assisted by the Misses Winnie and John Edmondson. 7.15: "Temperance" talk by Mr. E. Douglas Dent. 7.30: Evening service relayed from Trinity Congregational Church. 8.45: Concert by the Perth City Band, conducted by Mr. Les Price. relayed from Queen's Hall. 10.5: 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

### MORNING SESSION

- 11.0: Transmission from Chalmers Presbyterian Church, Bathurst Street, Hobart.
- 12.30: Close down.

### AFTERNOON SESSION

- 3.30: Sacred and classical music arranged by James Counsel.
- 4.30: Close down.

### EARLY EVENING SESSION

- 6.15: Chorus singing (conductor, Trevor M. Morris).
- 6.45: Bertha Southey Brammall.

### EVENING SESSION

- 7.0: Transmission from St. David's Cathedral, Murray Street, Hobart.
- 8.25: A programme of classical music arranged by James Counsel.
- 9.45: News session.
- 9.50: Close down.

## CHURCH SERVICES

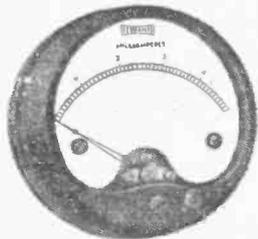
IN view of the arrangements made for a new broadcasting company to take over 2FC and 2BL next month, listeners are advised that the church services which have been arranged for the remaining weeks of the licenses held by the New South Wales Broadcasting Company are as follow:—

- June 30th: 2FC, morning, Fullerton Memorial Presbyterian; 2BL, morning, St. Jude's Church of England; 2FC, evening, Unitarian, Liverpool Street; 2BL, evening, Strathfield Presbyterian.
- July 7th: 2FC, morning, St. Mark's Church of England; 2BL, morning, Bourke Street Congregational; 2FC, evening, St. Stephen's Presbyterian; 2BL, evening, nil.
- July 14th: 2FC, morning, St. Andrew's Church of England; 2BL, morning, Randwick Presbyterian; 2FC, evening, Pitt Street Congregational; 2BL, evening, Petersham Baptist.
- July 21st: 2BL, morning, Burton Street Baptist; 2BL, evening, Newtown Congregational.

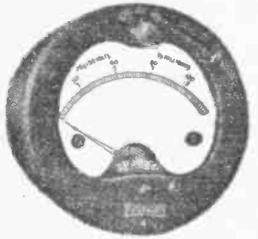
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## THE MASTER-VALVE

# Local Programmes, Monday, July 1

## 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; inter-State markets; produce markets. 7.40: Studio music. 8.0: "Ben Ben." Close.

### 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. 10.30: 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 Reuter's cable services. 11.5: Close down.

### MIDDAY SESSION.

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.2: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Summary of news. "Sydney Morning Herald." 12.10: Rugby wireless news. 12.13: 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. 1.15: From the Aeolian Hall—Lunch-hour Chamber Music Recital, by the Sverjensky Instrumental Ensemble. 1.50: From the Studio—Stock Exchange, second call. 1.52: Popular music. 2.0: "Big Ben." Close.

### AFTERNOON SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: Items of general interest and music. 3.0: "Big Ben"; pianoforte reproduction. 3.15: Popular music. 3.30: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 3.40: Hilda Walker, soprano—(a) "Prelude." Cycle of Life (Ronald). (b) "Down in the Forest." Cycle of Life (Ronald). 3.46: A reading. 4.10: Bessie Smith, contralto—(a) "The Bells of Burmah" (Oliver), (b) "The Great Bazaar" (Oliver), (c) "My Treasure" (Trevelsa). 4.17: Musical items. 4.25: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.35: From the Studio—Hilda Walker, soprano—(a) "The Winds Are Calling" (Cycle of Life), (Ronald), (b) "Joy of the Morning" (Ware). 4.42: A popular item. 4.45: Stock Exchange, third call. 4.47: Bessie Smith, contralto—(a) "My Heart's Desire" (Clarke), (b) "The Lavender Seller" (Breville-Smith), (c) "Turn Ye to Me" (Old Scotch). 4.54: Studio music. 5.0: "Big Ben." Close.

Note.—During the afternoon a description will be taken from the Kensington racecourse of the polo matches—Countess of Dudley Cup, J. J. Garvan Cup.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.

6.30: The chimes of 2FC. 5.35: 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. 6.48: Weather and shipping news. 6.50: Rugby wireless news. 6.55: Late sporting news. 7.0: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "The Desert Song Valse" (Romberg), (b) "Marche Turque" (Eilenberg), (c) "Invano" (Amadei), (d) "Hungarian Rhapsody No. 2" (Liszt), (e) "Serenade" (Schubert), (f) "One Alone" (Romberg).

### EVENING SESSION.

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Popular music.  
7.45: Programme announcements.  
7.48: A record recital.

8.0: "Big Ben"; Studio Orchestra, conducted by Horace Keats—

Selection, "Mignon" (Thomas).

8.15: "The Mutiny of the Bounty."

9.15: Weather report.

9.16: Studio Orchestra, conducted by Horace Keats—

"Scheherazade" (Rimsky-Korsakoff).

9.31: R. A. Bartleman, baritone

9.38: Studio Orchestra, conducted by Horace Keats—

(a) Overture, "Fingal's Cave" (Mendelssohn).

(b) "Reve Angellique" (Rubinstein).

9.53: Joe Cahill, entertainer—  
(a) "Mister Dooley on Athletics" (Dunne).

(b) "Then and Now" (Whitman).

10.0: "Big Ben"; Studio Orchestra, conducted by Horace Keats—  
"The Unfinished Symphony" (Schubert).

10.20: Late "Evening News" service.

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

10.30: National Anthem.

## 2BL

### MORNING SESSION

Announcer: A. C. C. Stevens

8.0: G.P.O. Chimes; weather report—State and metropolitan. 8.3: Studio music. 8.15: G.P.O. chimes; news and information service from the "Daily Telegraph Pictorial." 8.45: 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, conducted by Miss Gwen Varley. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield; talk on "Infant Welfare" by Nurse May. 12.0: G.P.O. chimes; special ocean forecast and weather report. 12.3: Pianoforte and vocal recital. 12.30: Shipping and mails. 12.35: Market reports. 12.43: "Sun" midday news service. 1.0: G.P.O. chimes; Studio music. 1.8: Studio music. 1.22: Studio music. 1.30: Talk to children and special entertainment for children in hospital by Uncle Steve. 2.0: G.P.O. chimes; close down. Note: Race results will be broadcast by arrangement with the "Sun" Newspapers, Ltd.

### AFTERNOON SESSION

Announcer: A. C. C. Stevens

Accompanist: Kathleen Roe.

3.45: G.P.O. chimes; popular music. 4.0: G.P.O. chimes; Anne Melhuish, soprano—(a) "I've Been Roaming" (Horn), (b) "The Curtain Falls" (D'Hardelot). 4.7: Studio items. 4.17: Hazel M'Pherson, contralto. 4.24: "Sun" news service. 4.30: Anne Melhuish, soprano—(a) "June Music" (Trent), (b) "Sing Merrily To-day" (Phillips). 4.37: Studio music. 4.47: "Sun" news service. 4.52: Hazel M'Pherson, contralto. 5.0: G.P.O. chimes; pianoforte reproduction. 5.15: Popular music. 5.23: Racing resume. 5.27: Features of the evening's programme.

### EARLY EVENING SESSION

Announcer: Basil Kirke.

5.30: 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) Waltz "Eugene Onegin" (Tschalkowsky), (b) "The Crystal Gazer" (Carr), (c) "Valse Suite" (Brahms), (d) "Barcarolle" (Offenbach), (e) "Valse in E Minor" (Chopin), (f) "You Came to Me" (D'Hardelot), (g) "Wonder Eyes" (Fletcher). 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 reports; grain and fodder report ("Sun"); dairy produce report ("Sun"). 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: Basil Kirke.

Accompanist: C. Vern Barnett.

8.0: G.P.O. chimes. From the King's Cross Theatre, the King's Cross Theatre Orchestra, conducted by Max Saunders.

8.20: From the Studio: R. M. Baxter, tenor—

(a) "My Queen" (Blumenthal).

(b) "Maid of Athens" (Allen).

8.27: Graham and Manning, entertainers. 8.37: Ailsa Lewis and Kathleen Walker, banjo and piano—

(a) "Get Going" (Mandell).

(b) "Lenora" (Riesensfeld).

(c) "Dustin' the Keys" (O'Neill).

(d) "Ten Little Miles from Town" (Schoebel).

8.47: From the King's Cross Theatre—The King's Cross Theatre Orchestra, conducted by Max Saunders.

9.7: From the Studio—Weather report.

9.8: R. M. Baxter, tenor—

(a) "Close to My Heart this Precious Flower" (Bizet).

(b) "Ailsa Mine" (Newton).

9.15: A talk on the Aborigines, by "Bringa."

9.30: Ailsa Lewis and Kathleen Walker, banjo and piano—

(a) "I Faw Down and Go Boom" (Brockman).

(b) "Toymaker's Dream" (Golden).

(c) "Tinkle Toes" (Wemrich).

(d) "American Medley" (Somers).

9.40: Graham and Manning, entertainers. 9.50: Billee Cresswell, popular vocalist. 9.57: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams.

10.9: From the Studio—Billee Cresswell, popular vocalist.

10.16: Romano's Cafe Dance Orchestra.

10.28: From the Studio—Late weather report.

10.30: 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 down.

## 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. 11.45: Close down. 2.0: Music. 2.5: Women's radio service, by Mrs. Dorothy Jordan. 2.50: Music. 3: Address. 3.30: Close down. 5.30: Children's session, by Uncle George. 7.0: Music. 7.30: Short talk by Mrs. Jordan. 7.45: Feature story. 8.0: Madame Iris d'Orleans, contralto. 8.7: Band selections. 8.15: Mr. Norman Ellis, tenor. 8.22: Instrumental trio. 8.30: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.35: Miss Doris Robinson, soprano. 8.45: Address. 9.0: Weather report. 9.3: Band selections. 9.13: Madame Iris d'Orleans, contralto. 9.23: Mr. Heath Burdock, Shakespeare recital. 9.33: Instrumental Trio. 9.40: Mr. Norman Ellis, tenor. 9.50: Band selection. 9.55: Miss Doris Robinson, soprano. 10.5: Instrumental music. 10.30: Close down.

## 2UW

### MIDDAY SESSION.

12.30: Request numbers. 1.0: G.P.O. clock and chimes. Music. 1.15: Talk on Homecraft, by Pandora. 1.40: Music and request numbers. 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. 7.45: Radio talk, hints and advice by Mr. E. Homfray. 8.0: Music. 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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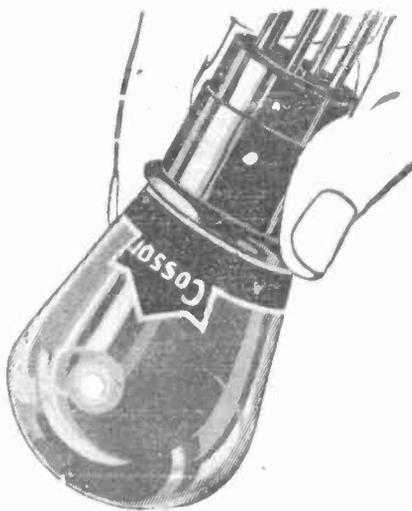
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# Local Programmes, Tuesday, July 2

## 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; 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. 10.2: 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"; A.P.A. and Reuter's cable services. 11.5: Close down.

### MIDDAY SESSION

Announcer: A. S. Cochrane.

12.0: "Big Ben" and announcements. 12.2: Stock Exchange, first call. 12.3: Official weather forecast; rainfall. 12.5: Summary of news, "Sydney Morning Herald." 12.10: Rugby wireless news. 12.13: A reading. 12.30: Studio music. 1.0: "Big Ben"; weather intelligence. 1.3: "Evening News" mid-day 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: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: Items of general interest and music. 3.0: Popular music. 3.30: Myra O'Neil, soprano. 3.37: Studio music. 3.45: A reading. 4.10: Daisy Sweet, contralto. 4.20: Edith Harrison, pianist. 4.30: Myra O'Neil, soprano. 4.37: Edith Harrison, pianist. 4.45: Stock Exchange, third call. 4.47: Daisy Sweet, contralto. 4.54: Studio music. 5.0: "Big Ben"; close.

### EARLY EVENING SESSION

Announcer: A. S. Cochrane

5.30: The chimes of 2FC. 5.35: 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 stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Rugby wireless news. 6.55: Late sporting news. 7.0: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartet, conducted by Horace Keats—(a) "Florindo" (Bergmetn), (b) "Down in the Forest" (Ronald), (c) "The Prince of Pilsen" (Luders), (d) "Abandonnie" (Franoschi), (e) "Danse des Mirlitons" (Tschalkowsky).

### EVENING SESSION

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple

7.40: Popular music.  
7.45: Programme announcements  
7.48: A record recital.  
8.0: "Big Ben." Metropolitan Band—March, "The Great Little Army" (Alford).  
British Marching Songs—programme arranged by Alfred Cunningham, with annotations by Captain Fred Aarons—  
(a) "Tommy Atkins."  
(b) "Soldiers of the King."  
(c) "Boys of the Old Brigade."  
(d) "The Girl I Left Behind Me."  
(e) "The Saucy Arethus."  
9.0: "Big Ben"; weather report  
9.1: Lindley Evans, pianist.

9.12: Heather Bell, soprano.  
(a) "Cradle Song" (Tschalkowsky).  
(b) "Was I not a Blade of Grass in Meadow Green" (Tschalkowsky).  
9.19: Graham Kent will give a talk on "Bridge."  
9.34: Metropolitan Band—Fantasia, "A Soldier's Life" (Sheriff).  
9.44: Lindley Evans, pianist.  
9.56: Heather Bell, soprano—"Lisa's Romance" (Tschalkowsky).  
10.3: Metropolitan Band—Overture, "Light Cavalry" (Suppe).  
10.13: From the Hotel Australia—Cec Morrison's Dance Band.  
10.28: From the studio—late weather report.  
10.33: From the Hotel Australia—Cec Morrison's Dance Band.  
10.57: From the studio—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. C. Stevens.

8 a.m.: G.P.O. chimes; weather report. State and metropolitan. 8.3: Studio music. 8.15: G.P.O. chimes; news and information service from the "Daily Telegraph Pictorial." 8.48: 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. 11.30: Advertising hints. 11.40: Women's session, conducted by Mrs. Cranfield; talk on the work of the St. John Ambulance Association, by Sister Parry. 12.0: G.P.O. chimes; special ocean forecast and weather report. 12.3: Pianoforte reproduction. 12.30: Shipping and mails. 12.35: Market reports. 12.43: "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; popular music. 4.0: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.15: From the studio—Esther Gunton, soprano—(a) "Pale Moon" (Logan), (b) "Happy Song" (Del Riego). 4.22: A news item. 4.25: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.35: From the studio—Frederick Todd, basso. 4.42: Popular music. 4.50: Frederick Todd, basso. 4.57: "Sun" news service. 5.2: Esther Gunton, soprano—(a) "Homing" (Del Riego), (b) "Keep on Hopin'" (Heron-Maxwell). 5.9: Pianoforte reproduction. 5.19: Producers' Distributing Society's poultry report. 5.22: Racing resume. 5.27: Features of the Evening's programme. Note: during the afternoon scores of the polo match played at Kensington.

### EARLY EVENING SESSION

Announcer: Basil Kirke.

5.30: 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 Quartet—(a) "Mazurka" (Delibes), (b) "As Once in Happier Days" (Popper), (c) "The Waltz Dream" (Strauss), (d) "At the Fireside" (Janssen), (e) "Frivolette" (Ring). 7.7: Australian Mercantile Land and Finance Co.'s report; weather report and forecast, by courtesy of Government Meteorologist; Producer's Distributing Society's fruit and vegetable market reports; grain and fodder re-

port ("Sun"); dairy produce report ("Sun"). 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: Basil Kirke.

Accompanist: G. Vern Barnett.

8.0: G.P.O. chimes.  
From Pitt Street Congregational Church—organ and pianoforte recital by Lillian Frost and Esther Kahn.  
(a) "Andante" (Mendelssohn).  
(b) "Finale" (Mendelssohn). G Minor Concerto.  
8.15: Robert Scott, tenor.  
8.22: Evelyn Hall, contralto—  
(a) "Mignon's Song" (Thomas).  
(b) "Smilin' Through" (Penn).  
8.29: Gerald Walenn, violinist.  
8.36: Zena and James Kendall in sketches.  
8.46: From Pitt Street Congregational Church, organ and pianoforte recital by Lillian Frost and Esther Kahn—  
(a) "By the Waters of Minnetonka" (Lieurante).  
(b) Gavotte, "Powder and Patches" (Kahn).  
(c) Overture, "The Poet and Peasant" (Suppe).  
9.0: From the studio, G.P.O. chimes. Weather report.  
9.1: Robert Scott, tenor.  
9.8: Vera Keogh—Memories of Famous Plays.  
9.23: Gerald Walenn, violinist.  
9.30: Evelyn Hall, contralto.  
9.37: Zena and James Kendall in sketches.  
9.52: From Pitt Street Congregational Church, organ and pianoforte recital by Lillian Frost and Esther Kahn—  
(a) March, "Concertstück" (Weber).  
(b) "Andante" from Concerto (Mozart).  
10.7: Late "Sun" news service.  
10.15: A celebrity record recital.  
10.28: 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. 11.45: Close down. 2.0: Music. 2.5: Women's radio service, by Mrs. Dorothy Jordan. 2.50: Music. 3.30: Close down. 5.30: Children's session, by Uncle George. 7.0: Music. 7.30: Talk from the Radio Service Department, by Mr. Stan Crittenden. 7.45: Feature story. 8.0: Miss Kathleen Cracknell, contralto. 8.7: Symphony Orchestra. 8.15: Mr. Clement Q. Williams, baritone. 8.22: Violin solos. 8.30: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.35: Miss Rita Head, mezzo-soprano. 8.45: Symphony Orchestra. 8.50: Miss Kathleen Cracknell, contralto. 9.0: Weather report. 9.3: Address. 9.15: Instrumental Trio. 9.25: Mr. Clement Q. Williams, baritone. 9.35: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.40: Symphony Orchestra. 9.50: Miss Rita Head, mezzo-soprano. 10.0: Instrumental music. 10.30: Close down.

## 2UW

12.30: Request numbers. 1.0: G.P.O. clock and chimes. Music. 1.15: Talk on Homecraft, by Pandora. 1.40: Music and request numbers. 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: Music. 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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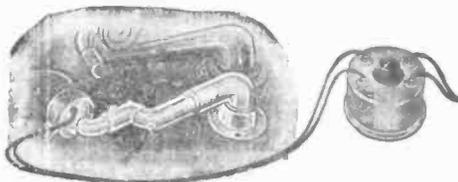
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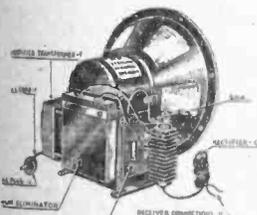
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# Interstate Programmes, Tuesday, July 2

## 3LO

### EARLY MORNING SESSION.

7.15 to 8.15: See Friday.

### MORNING SESSION.

11.0: 3LO Luncheon recipe, Cutlets and Tomato Sauce. 11.5: Miss E. Noble will speak on "Gas Cookery." 12.0: Mrs. Rose Brown will continue her "Recollections of 54th Woodwood."

### MIDDAY NEWS SESSION.

12.0: Melbourne Observatory time signal. 12.1: British official wireless news from Rugby; Reuters' and the Australian Press Association cables; "Argus" news service. 12.15: Newmarket stock sales; official report of the sheep market by the Associated Stock and Station Agents, Bourke Street, Melbourne.

### MIDDAY SESSION.

12.20: The Station Orchestra—Overture, "Merry Wives of Windsor" (Nicolaï). 12.27: Linda Wald, soprano "Dearest, I Love the Morning" (Haydn Wood). "April is a Lady" (Phillips). 12.34: Stock Exchange Information: prices received this day by the Australian Mines and Metals Association from the London Stock Exchange. 12.40: "The Station Orchestra"—"Prudence" (Jennings). 12.44: Music from "William Tell" (Rossini). 12.50: Jessi Sinclair, contralto—"Walkin' in the Garden" (Andrews). "The Leaves and the Wind" (Leon). 12.57: The Station Orchestra, selection, "The Merry Widow" (Lehar). 1.7: Meteorological information, weather forecast for Victoria, New South Wales, South Australia and Tasmania; ocean forecast; river reports; rainfall. 1.12: The Station Orchestra, "Elegie" (Arensky). 1.15: Linda Wald, soprano—"If I were a Bird" (Lehmann). "Thoughts Have Wings" (Lehmann). 1.18: The Jodel Trio (Alva Hattenbach, Hilda Edna Hattenbach, cellist John Simons piano)—"Arioso" (Reissiger). (b) "Serenade" (Drigo). Alva Hattenbach, violin—"Waltz in A" (Brahms). "Allegretto" (Boccherini-Kreisler). The Trio—"Liebesgarten" (Schumann). "Rondo" (Haydn). 1.45: Close down.

### AFTERNOON SESSION.

2.15: The Radio Revellers—"Shivering" (Doody). "Promises" (Van Booth). "Ready for the River" (Moret). "My Stormy Weather Pal" ("What'll You Do" (Cohn). 2.30: Arthur Douglas, Scottish comedian, "When I Meet M'Kay." 2.37: The Radio Revellers—"Do You" (Planadosi). "Pa's Old Hat" (Chy). "Colombo" (Nichols). "I Fell Head over Heels in Love" (Thevers). "Sonny Boy" (Brown). 2.52: Tom Simple, tenor, "We'll Know We'll Understand" (Henry) selected. 3.0: The Radio Revellers—"Sally of my Dreams" (Kernell). "You're a Real Sweetheart" (Friend). "The 'The Troit" (Pensol). "Where the Col-Cot-Cotton Grows" (Kilian). "Cinnamon Cake" (Bernard). 3.15: Mildred Connie, harp and violin, selections from their repertoire. 3.30: The Radio Revellers—"My Pleurette" (Kimbrough). "Avalon Town" (Bower). "Ship's that Thing" (Jackson). "Glad Rag Doll" (Ager). "You are wonderful" (Ash). 3.45: Arthur Douglas, comedian—"The Wedding" of John MacLean. 3.48: The Radio Revellers—"There Ought to be a Law against That" (Friend). "The Rose of Planders" (O'Hogan). "Oh, Ya Ya" (Frlchi). "Stars are the Windows of Heaven" (Malie) selected. 4.4: Tom Simple, tenor—"Tommy Loo" (Margerson). "For You Alone" (Crechi). 4.15: The Radio Revellers—"Only a Rose" (Friml). "That's Her Now" (Aeger). "Songs of the Vagabonds" (Friml). "Japansy" (Klenner). "Constantinople" (Carlton). 4.30: Arthur Douglas, comedian, "Hame o' Mine." 4.35: The Radio Revellers—"Minnetonka" (Fireworks) (Williams). "Roses of Yesterday" (Berlin). "Jo-Anne" (Ward). "Gypsy" (Gilbert). 4.50: News service: Stock Exchange Information. 5.0: Close down. 5.45: Stories for the children. 6.50: Captain Donald MacLean will tell some more adventure stories.

### 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 Tasmanian Government Tourist Department, L. B. Bruce will speak on "Tasmania's Lakes, Mountains, and Waterfalls."

### NIGHT SESSION.

8.1: The Radio Revellers—"I'm Crazy over You" (Lewis). "Old Man Sunshine" (Dixon). "Wipin' in the Park" (Barr). 8.10: Linda Wald, soprano—"Irish Folk Song" (Arthur Foote). 8.13: The Radio Revellers—"Guess Who's in Town" (Razaf). "That Solen Melody" (Elsler). "Japanese Melody" (Donaldson). 8.22: J. Alexander Browne, baritone—"My Little Banjo" (Richmont). by request. 8.25: The Radio Revellers—"There's a Rickety, Rackety Shack" (Turk). "That's Who You Mean to Me" (Davis). "All by Yourself in the Moonlight" (Wallis). 8.34: Mildred and Connie, harp and violin—Selections from their repertoire. 8.37: The Radio Revellers—"Sic! Cok a Great Big Army of Friends" (Nelson). "Querida" (Simon). "Falling in Love with You" (Mayne). 8.46: Arthur Douglas, Scottish comedian—"Sonnie M'Lean." 8.49: The Radio Revellers—"I Love to Dunk a Hunk of Sponge Cake" (Castill). "Sweet Sue, Just You" (Harris). "Roses of Yesterday" (Berlin). 8.58: Linda Wald, soprano—"The Pips of Pan" from "The Arcadians" (Monckton). 9.1: The Radio Revellers—"The Voice of the Southland" (Austin).

"My Heaven is Home" (Collin). "Pleikin Cotton" (Henderson). 9.10: J. Alexander Browne, baritone—"The Farmer's Bride" (Kennedy Russell). 9.13: The Radio Revellers—"I'm on the Crest of a Wave" (Henderson). "Mother, I Still Have You" (Jolson). "Out of the Dawn" (Donaldson). 9.23: Mildred and Connie, violin and harp—Selections from their repertoire. 9.26: The Radio Revellers—"Paradise and You" (Daany). "The Prune Song" (Crunk). "Sincerely I Do" (Davis). 9.35: Arthur Douglas, Scottish comedian—"Sergeant Jack M'Pherson." 9.38: The Radio Revellers—"Sally Rose" (Friend). "It All Goes Out in the Wash" (Trent). "Rio Rita" (Tierney). 9.47: Linda Wald, soprano—"A Little Oooh's Prayer" (Hoper). 9.50: The Radio Revellers—"The Kinkajou" (Tierney). "My Mother's Eyes" (Barr). "Next to Mr. I Like no Next to You" (Ellis). 10.0: News service: British official wireless news from Rugby; meteorological information; announcements; Eric Welch's selections for the Oakland Hunt Club races to-morrow at Moonee Valley. 10.10: The Radio Revellers—"Anywhere is Heaven" (Brady). "Down where the Sun Goes Down" (Jones). "Can You Blame Me" (Goodwin). 10.19: Mildred and Connie, harp and violin—Selections from their repertoire. 10.22: The Radio Revellers—"I Want to be Alone with Mary Brown" (Leslie). "Ya Comin' Up To-night, Huh?" (Lewis). "Forty-seven Ginger-headed Sailors" (Rafonny). 10.30: Arthur Douglas, Scottish comedian—"I Love My Madge." 10.33: The Radio Revellers—"High Tension" (Barr). "A Bungalow, a Radio, and You" (Denney). "My Heart Sings Still" (Rogers). 10.42: J. Alexander Browne, baritone—"The Luck of the Irish" (Smythe). 10.46: Progress scores in billiard match, Walter Lindrum v. Willie Smith. 10.48: The Radio Revellers—"Give your Baby Lots of Lovin'" (Burke). "When You Know Me" (Bader). "I'm Thirsty for Kisses" (Davis). 10.54: Mildred and Connie, harp and violin—Selections from their repertoire. 10.58: The Radio Revellers—"I'm Sorry, Sally" (Kahn). "My Blackbirds are Bluebirds now" (Friend). "Casablanca" (Evans). "Cradle of Love" (Wayne). "Oh, Isabella" (Schuster). Request items. 11.30: God Save the King.

## 4QG

### EARLY MORNING SESSION.

7.43 to 8.30: See Friday.

### MORNING SESSION.

11.0 to 12.0: See Friday.

### MIDDAY SESSION.

1.0 to 2.0: See Friday.

### AFTERNOON SESSION.

3.0 to 4.30: See Friday.

### EARLY EVENING SESSION.

6.5: A Law Talk. Criminal Law No. 1. Introductory, by a Barrister-at-Law. 7.45: Lecture, "Photography," by Mr. F. L. South (Manager, Kodak, Ltd.).

### NIGHT SESSION.

8.0: Douglas Drouyn and His Novelty Trio, featuring the Electric Vibra Harp. 8.10: A recital by Edith Harry, the Welsh composer and pianist. Pianoforte solos, "Polonaise in C Sharp Minor" (Chopin). "Waltz in G Flat" (Chopin). Vocal solos, "Virginian Love Song" (Harry). "Six Weeks Old" (Harry). "The Milkman" (Harry). 8.25: Kennedy Allen. The first of a series of reviews of Shakespeare and his works, "Shakespeare's Treatment of Love." 8.35: Mary McNeish, soprano. "Happy Summer Song." "Angus Macdonald." 8.43: Douglas Drouyn and his Novelty Trio, more melody with the Electric Vibra Harp. 8.53: Edith Harry. Another short recital. Pianoforte solos, "Nocturne in E Minor" (Chopin). "Gopak" (Moussorgski). Vocal solos, "Pierrot's Cradle Song" (Harry). "Friendship" (Harry). "Roses for the King" (Harry). 9.9: Metropolitan weather forecast. 9.10: The Studio Orpheans in a programme of nautical songs, including—Octette, "A Life on the Ocean Wave" (Russell). George Williams, tenor. "When My Ships Come Sailing Home" (Dorel). The Orpheans. Octette, "On the Sea" (Buck). J. P. Cornwell, bass. "Bells of the Sea" (Bolman).

The Orpheans. Hymns, "Eternal Father" (Stie of France). The Orpheans. Octette, "Hullabaloo" (E. Harper, baritone). "They All Love Jack." The Orpheans. Octette, "The Powder Monkey." G. Rice, tenor selected. The Orpheans. Octette, "Sailing." "Calm is the Sea." F. Crane, baritone. "The Mighty Deep" (Jude). The Orpheans. Octette, "Asleep in the Dream." A. Wet Sheet and a Flowing Sea" (Richardson). 10.9: News, Weather "Queenlander" bi-weekly news service for country listeners. Close down.

## 5CL

### MORNING SESSION.

11.30 to 2.0: See Friday.

### AFTERNOON SESSION.

3.0 to 4.30: General programme.

### EVENING SESSION.

6.0: Chimes and results of Port Augusta race results. 6.1: Birthday greetings, correspondence, songs, and stories by "The Wattle Lady." 6.30: Recordings. 6.46: 5CL's sporting service, including resume of Port Augusta race results, lacrosse, and buckey notes. 7.0: Chimes. 7.1: Senior Birthday League greetings. 7.2: Stock Exchange, 7.6: General market reports. 7.10: Under the auspices of the Workers' Educational Association, Mr. R. F. Burden, B.Sc. will speak on "Citizenship and the World's Sources of Power Supplied." 7.25: Mr. R. C. Balo, Ph.D. Lecturer in English at the Adelaide University will speak to you. 7.40: Dr. H. Burrows in another of his interesting Australian talks.

### NIGHT SESSION.

8.0: Chimes. 8.10: A presentation of the famous opera, "Rigoletto."

Character:	Character:
Gilda	Marcelle Bernardi
The Duke of Mantua	Dino Pelardi
Rigoletto	Fred. Guster
Monterone	Bert Woolley
Spaurfuelle	Fred. Guster
Maddalena	Gwen Collett
Clotilde	Ann Young
Contessa Ceprano	Dino Pelardi
Borsa	Bert. Woolley
Mirilla	Bert. Woolley
Ceprano	

### and Chorus.

Explanatory remarks by Mofuce Perkins, Musician, A.M.U.A.

Music by the Station Quartette.

The Post's Corner.

10.0: P. H. Nicholls and Bessie Francis will present "Enoch Arden."

10.15: General news service.

10.20: 5CL's official wireless news.

Meteorological information.

Announcements.

10.20: 5CL's sporting service, including Port Augusta race results.

10.30: Close down.

## 6WF

10.0: Tune in: gramophone and phonograph records from the studio. 11.0: Close down. 12.30: Tune in. 12.35: Market news. 1.0: Time signal. 1.1: Weather bulletin supplied by the Meteorological Bureau of West Australia. 1.3: Luncheon music relayed from the Primrose Cafe de Luxe. 2.0: Close down. 3.30: Tune in. 3.35: 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 Perth Piano Trio. 7.30: Commercial and general information. 7.45: Talk by Dr. Batty, B.A., LL.B. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Concert by the Cougl-Liederfahrt 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. 9.5: Programme continued from the studio. 10.30: Close down. 10.4: 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 to 4.30: General programme.

### EARLY EVENING SESSION.

6.15: Selections. 6.30: "The Story Lady" will tell a story to the wee folk. 6.45: Valerie Hanley will play the piano for the wee folk—"Kiss of Spring," "Petite Papillons." 7.0: Answers to letters and birthday greetings by "Uncle David" and "The Story Lady." 7.5: Selections. 7.15: News session.

### EVENING SESSION.

7.30: "Regulo" will give a gas cookery talk. 7.45: W. E. Fuller will speak on "Literary Lapses and Library Lists."

- 8.6. Calmes  
 8.7. Selections  
 8.8. A dance programme arranged by Palais de Danse Band (interspersed with gramophone records).  
 Palais de Danse Band—  
 "Happy Days and Lonesome Nights" (Pinner).  
 "Sweet Song" (Romberg).  
 "Flower of Love" (Ruby).  
 Robert Radford, bass— (German).  
 "Four Jolly Sailors" (German).  
 Palais de Danse Band—  
 "Soury Boy" (Jolson).  
 "Jumpin' Jack" (Blum).  
 Edna Thornton, contralto—  
 "Flower Song" ("Folies" Gounod).  
 "Pierce Plumes."  
 Palais de Danse Band—  
 "I'm Sorry, Sally" (Piorito).  
 "Rose of Flanders" (O'Hagan).  
 "Blue Nights" (Rollins).  
 Oreshan Singers—  
 "O Peaceful Night" (German).  
 "What Ho! What Ho!" (Beale).  
 Palais de Danse Band—  
 "Promise Me" (Van Gooth).  
 "Glad Rag Doll" (Agerl).  
 "Thinking of You" (Ruby).  
 Edna Thornton, contralto—  
 "For Every Day" (Russell).  
 "Vale—Farewell" (Russell).  
 Palais de Danse Band—  
 "Marie" (Berlitz).  
 "My Mother's Eyes" (Baer).  
 "He and the Man in the Moon" (Leslie).  
 Evan Williams, tenor—  
 "A May Morning" (Denza).  
 "Ain't Love but a Day" (Protheroe).  
 Palais de Danse Band—  
 "Sally of My Dreams" (Jolson).  
 "Russian Rag" (Cobard).  
 "You're Wonderful" (Ash).  
 Sydney Coltham, tenor—  
 "All Moon of my Delight" (Lennard).  
 8.45. News section  
 10.0. Calmes  
 10.1. Close down

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BY

**VICTOR E. CROMER**

ON

**HEALTH**

AND

**MARY RIVETT**

ON

**PSYCHOLOGY**

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WE 4



# Local Programmes, Wednesday, July 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 memoranda. 7.7: "Sydney Morning Herald" summary. 7.12: Shipping intelligence, mail services. 7.15: Studio music. 7.25: Investment markets, 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. 10.3: 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 will be transmitted. 12.0: "Big Ben" and announcements. 12.1: Stock Exchange, first call. 12.3: Official weather forecast, rainfall. 12.5: Summary of news, "Sydney Morning Herald." 12.10: Rugby Wireless news. 12.13: 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: Studio music. 2.0: "Big Ben." Close.

### AFTERNOON SESSION.

Announcer: Laurence Halbert  
 Accompanist: Ewart Chapple.  
 2.30: Programme announcements. 2.32: A Record Recital. 3.0: "Big Ben." Popular music. 3.30: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 3.40: From the Studio: Florence Yates, soprano. 3.46: A Reading. 4.10: Studio music. 4.20: Dick Matthews, comedy numbers—(a) "My Baby Changed My Mind" (Matthews and Smith), (b) "Ya Goin' to be Home Tonight" (Dixon, Lubin, and Step), 4.27: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.35: From the Studio: Florence Yates, soprano. 4.42: Musical item. 4.45: Stock Exchange, third call. 4.47: Dick Matthews, comedy numbers—(a) "Nobody's Baby but Mine" (Endor and Ward), (b) "Sing, Katie" (Tracy and Dougherty), (c) "Out in the New Mown Hay" (Tracy and Dougherty). 4.54: Studio music. 5.0: "Big Ben." Close. Note: Description of the polo will be taken from Kensington Racecourse during the afternoon.

### EARLY EVENING SESSION.

Announcer: A. S. Cochrane.  
 5.30: The chimes of 2FC. 5.35: The Children's Session, conducted by the "Hello Man," assisted by Uncle Ted and Sandy. Letters and stories. Music and entertainment. 6.30: Dalgely's market reports (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Rugby Wireless news. 6.55: Late sporting news. 7.0: "Big Ben." Late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Serenade d'Amour" (Waldau), (b) "Second Gavotte" (Sapellnikoff), (c) "La Tosca" (Puccini), (d) "Minuet Pastel" (Paradis), (e) "Little Lady of the Moon" (Coates).

### EVENING SESSION.

Announcer: Laurence Halbert.  
 Accompanist: Ewart Chapple.  
 7.40: Popular music.  
 7.45: Programme announcements.  
 7.48: A Record Recital.  
 8.0: "Big Ben." Dorothy Helmrich, soprano.  
 8.18: Kathleen Roe, pianoforte solos.

8.28: Dorothy Helmrich, soprano.  
 8.48: A Talk by F. H. Raward.  
 9.3: Weather report.  
 Dorothy Helmrich, soprano.  
 9.23: Kathleen Roe, pianoforte solos.  
 9.33: Dorothy Helmrich, soprano.  
 9.50: Programme announcements.  
 News service.  
 10.0: "Big Ben." Popular music.  
 10.28: Late weather, and to-morrow's programme.  
 10.30: National Anthem. Close.

## 2BL

### MORNING SESSION.

Announcer: A. C. C. Stevens.  
 8 a.m.: G.P.O. chimes; weather report, State and metropolitan. 8.3: Studio music. 8.15: News and information service from the "Daily Telegraph Pictorial." 8.45: 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. 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: Pianoforte reproduction. 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, by Uncle Steve. 2.0: G.P.O. chimes. Close down. Note.—Race results from Victoria Park will be broadcast by arrangement with "Sun" Newspapers.

### AFTERNOON SESSION.

Announcer: A. C. C. Stevens.  
 Accompanist: Kathleen Roe.  
 3.45: G.P.O. chimes; popular music. 4.0: G.P.O. chimes; Les Busse, melo accordeon—(a) "The Bee Song" (Wending), (b) "Heart Broken and Lonely" (Conrad), (c) "Savoy Medley" (Somers). 4.7: Basil Kirke will speak on "The Truth about Cannibalism." 4.22: Mab Bowyer, contralto—(a) "In An Old Fashioned Town" (Squire), (b) "Lilacs" (Rachmaninoff). 4.30: Studio items. 4.37: Les Busse, melo accordeon—(a) "Melodies" (old time) (Busse), (b) "Laugh, Clown, Laugh" (Clapp), (c) "Girl of My Dreams" (Florida). 4.44: "Sun" news service. 4.50: Mab Bowyer, contralto—(a) "A Black Bird Singing" (Head), (b) "Oyer the Stepps" (Gretchaninoff). 4.57: Pianoforte reproduction. 5.12: Popular music. 5.23: Racing resume. 5.27: Features of the evening's programme.

### EARLY EVENING SESSION.

Announcer: Basil Kirke.  
 5.30: Children's session, conducted by Uncle Bas; music and entertainment; letters and stories. 6.20: The Aero Club, conducted by Mr. Norman, in conjunction with "Wireless Weekly." 6.30: "Sun" news and late sporting. 6.40: 2BL Dinner Quartette—(a) "Moresca" (Slesiu), (b) "Serenade Passionnee" (Slesiu), (c) "Lohengrin" (Wagner), (d) "Minuet in F" (Logan), (e) "Melodie" (Rachmaninoff). (f) "Mon Paradis" (Clarke). 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. Pim 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: Basil Kirke.  
 Accompanist: G. Vern Barnett.  
 8.0: G.P.O. chimes. From the Capitol Theatre—The Capitol Unit of Entertainment.  
 8.7: The H. W. Varna Company present "Tea for Three"—Cast:  
 Phillip (the friend) ..... H. W. Varna

Doris (the wife) ..... Meg Service  
 Carter (the husband) ..... H. J. Saller  
 Dray Cott (the maid) ..... Miss Dillon  
 Austin (the valet) ..... Henry de Witte  
 Scene 1.—At a fashionable restaurant.  
 Scene 2.—At Carter's home, this afternoon.  
 Scene 3.—At Phillip's rooms, this evening.  
 Scene 4.—At Carter's house, "Tea for Three," to-morrow.  
 9.7: Weather report.  
 9.8: Ethel Friend, contralto—  
 (a) "My Abode" (Schubert).  
 (b) "To Music" (Schubert).  
 9.15: From the Capitol Theatre—Stage presentation.  
 9.30: From the Studio—Billie Cresswell, popular vocalist.  
 9.37: From the Hotel Australia—Cec. Morrison's Dance Band.  
 9.49: From the Studio—Billie Cresswell, popular vocalist.  
 9.56: Late "Sun" news service.  
 10.6: From the Hotel Australia—Cec. Morrison's Dance Band.  
 10.28: From the Studio—Late weather report.  
 10.30: From the Hotel Australia—Cec. Morrison's Dance Band.  
 10.57: From the Studio—To-morrow's programme.  
 10.59: From the Hotel Australia—Cec. Morrison's Dance Band.  
 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. 11.45: Close down. 2.0: Music. 2.5: Women's radio service, by Mrs. Dorothy Jordan. 2.50: Music. 3.0: Labor-saving demonstration from Nock and Kirby. 4.0: Close down. 5.30: Children's session, by Uncle George. 7.0: Music. 7.30: Short talk by Miss Helen J. Beegling. 7.45: Feature story. 8.0: Miss Heather Kinnaird, contralto. 8.7: Violin solos. 8.15: Mr. Cecil Houghton. 8.22: Mr. Jack Win and Miss Nora Windle, in a dramatic sketch. 8.32: Symphony Orchestra. 8.37: Miss Gladys Verona, soprano. 8.45: Address. 9.0: Weather report. 9.3: Organ music. 9.13: Miss Heather Kinnaird, contralto. 9.23: Mr. Jack Win and Miss Nora Windle, in a humorous sketch. 9.33: Symphony Orchestra. 9.40: Mr. Cecil Houghton, tenor. 9.50: Organ music. 9.55: Miss Gladys Verona, soprano. 10.5: Instrumental music. 10.30: Close down.

## 2UW

### MIDDAY SESSION.

12.30: Request numbers. 1.0: G.P.O. clock and chimes. Music. 1.15: Talk on Home-craft, by Pandora. 1.40: Music and request numbers. 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: Music. 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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# Interstate Programmes, Wednesday, July 3

## 3LO

### EARLY MORNING SESSION.

7.15: Morning melodies. 7.20: Morning exercises to music. 7.30: Stock reports; Stock Exchange information; market reports; general news; shipping and sporting information. 8.0: Melbourne Observatory time signal. 8.1: Morning melodies. 8.15: Close down. 10.50: Sporting: Final selections by Eric Welch for the Oaklands Hunt Club races at Moonee Valley.

### MORNING SESSION.

11.0: 3LO's dinner recipe: Hors d'Oeuvres—Sardines on Toast. 11.5: Mrs. M. Callaway Mahood will speak on "The Art of Decoration." 11.20: Sonora Recital. 11.45: Mrs. Clarence Veer will speak on "Physical Culture for Women."

### MIDDAY NEWS SESSION.

12.0: Melbourne—Observatory time signal. 12.1: British official wireless news from Rugby; Reuters and the Australian Press Association 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: The Radio Revelers: "You Ought to Hear Clauf Laff" (Bari). "Medean Serenade" (Terese). "Down by the Old Front Gate" (Kassal). 12.28: Arthur Douglas, Scottish comedian; "Saturday Night, I've Just Come Up For the Day." 12.30: Stock Exchange information; prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. 12.42: The Radio Revelers: "I Don't Know Why I Do It" (Val). "Hum and Strum" (Meyers). "Maybe I'm Wrong" (Harris). 12.50: Linda Wald, soprano; "Happy Song" (Del Riego). "Homing" (Tasmania). 12.55: The Radio Revelers: "Constantinople" (Carlton). "My Angelina" (Wayne). "There's a Rainbow Round My Shoulder" (Jolson). 1.6: Meteorological information; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecasts; river reports; rainfall. 1.12: Mildred and Connie, harp and violin; Selections from their repertoire. 1.22: The Radio Revelers: "Dada, Dada" (Dore). "Oh, Is She Mad at Me?" (Friend). 1.30: Speeches from the Rotary Club luncheon; transmission from the Freemasons' Hall, Collins Street, Melbourne. Close down.

### AFTERNOON SESSION.

1.58: Description by Eric Welch of Glendewar Trial Hurdle Race, 2 miles, Oaklands Hunt Club races at Moonee Valley. 2.5: The Station Orchestra: Overture. "Mirella" (Gounod). "Eastern Romance" (Korsakoff). 2.15: Linda Wald, soprano; "The Charm of Spring" (Clarke). "I Pity My Lonely Caravan" (Coates). 2.22: Bertha Jorgensen, violin; "Meditation" from "Thais" (Massenet); selected. 2.28: Description of Gowrie Handicap, six furlongs, Oaklands Hunt Club races at Moonee Valley. 3.5: The Station Orchestra: Selection, "Lolanthe" (Sullivan). 2.45: Jean Sinclair, contralto; "An Old Gardener" (Temple). "Keep on Hopin'" (Maxwell). 2.52: The Station Orchestra: Selection, "Schlimer's Song" (Arr. Clarke). "Marche Mignon" (Poldini). 2.55: Percy Code, soprano; "Somewhere a Voice is Calling" (Tate). 2.58: Description of Woodlands Hunt Steeple, 2m. 8 ch., Oaklands Hunt Club races at Moonee Valley. 3.5: The Station Orchestra: Selection, "The Grand Duchess" (Offenbach). "The Cuckoo" (Arensky). 3.17: Linda Wald, soprano; "Over the Waters Blue" (Clarke). "The Market" (Molly Carew). 3.24: A. Anderson, clarinet; "Andante and Polonaise" (Le Thiere). 3.28: Description of Bolinda Steeple, 2m. 8 ch., Oaklands Hunt Club races at Moonee Valley. 3.35: The Station Orchestra: "Allegro" (from Major Trio) (Saint Saens). "Romance" (Moussorgsky). "Stanchen" (Pache). John Simons, piano; "Gardens Under Rain" (Debussy). "Menuetto" (Schubert). The Trio; "Spanish Dance" (Moszkowski). 3.58: Description of Springbank Corinthian 6 furlongs, Oaklands Hunt Club races at Moonee Valley. 4.5: The Station Orchestra: Selection, "Chu Chin Chow" (Norton). 4.15: Jean Sinclair, contralto; "What Will You Do" (Lover). "John Anderson My Joe" (Old Scotch). 4.22: The Station Orchestra: Ballet music from "William Tell" (Rossini). 4.28: Description of Arundel Handicap, 7 furlongs, Oaklands Hunt Club races at Moonee Valley. 4.35: The Station Orchestra: "African Tone Poems" (Hall); selected. 4.40: News service; Stock Exchange information, progress scores in billiards match, Walter Lindrum v. Willie Smith. 4.50: Close down.

### CHILDREN'S HOUR.

5.45: Stories and entertainment for the children. 6.50: Captain Donald MacLean: More adventure stories.

### 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 Tasmanian Government Tourist Department; L. S. Bruce will speak on "Cradle Mountain." 8.0: A Maker of History.

### NIGHT SESSION.

8.0: Programme announcements. 8.1: Transmission from Moonee Ponds Town Hall—The Essendon Operatic and Choral Society presents "The Toreador" (musical numbers only). By arrangement with J. C. Williamson, Ltd., Conductor: F. J. Nott, A.R.C.M., A.R.C.O., Mus. Bac. Produced by E. Mason Wood. Pianist: Miss E. Jenkin.

### THE CAST

(Characters as they appear). Moreno (Carajolo's friend) ..... Thorold Irwin

1st Bridesmaid ..... Ruby Davidson  
Bridesmaids—Laura Wauchope, Gertrude Cameron, Alice Griffiths, Kath Lamb, Freda Trevillian.  
\*Mrs. Malton Hoppings (a widow) ..... Agnes Orelbar  
Busen (proprietress of the Magdalen) ..... Myrtle Gorrie  
Carajolo (a Toreador) ..... Arthur P. Thompson  
Mr. Pettifer (a dealer in wild animals) ..... Stanley Grunden  
Nancy Stanton (a friend of Dora's), Hilda Meagher  
Dora Selby (a ward in Chancery) ..... Lillie Ironside  
A Porter ..... Harry Ellis  
Mr. Pettifer (a solicitor) ..... Edw. Cox  
Sir Archibald Sackitt, Bart. .... Fred. W. Bennett  
Augustus Trull (British Consulate at Villays) ..... Edward C. Kaige  
A. Walter ..... E. Donally  
1st Show Girl ..... Marion Wilson  
2nd Show Girl ..... Ina Andrewatha  
Sunny Girl (a Ugor) ..... Percy Bayter  
Ethel Marshall ..... Silvia Kling  
Ruth, Bette, Christina, Elaine, Deborah, Vernice .....  
—VICTORS—Marjory Hind, Chris Thane, Hazel  
Vaughan, Constance Watson, Clarice Golding, Eileen Griffiths.  
Dora Theresa ..... Beatrice Cook  
Governor of Villaya ..... W. Kennedy Park  
Bandmaster ..... James Lake  
Members of the Band—Trevor Bennett, Cecil Beckwith, Laurie Buntin, Albert Lidton, Albert Jackson.  
Guard ..... Harry Harvey  
Arnaldo (Carlisle Agitator) ..... L. P. L'Hardy  
La Belle Bolero ..... Jessica Ferrara  
Ballet Lead ..... Clara Coffin  
Members of the Ballet—Mavis Thomson, Thelma Hamilton, Dorothy Hind, Connie Evans, Bessie Dumbrell, Jean Ironside.

### MUSICAL NUMBERS—ACT I

- Opening Chorus.
  - Chorus of Bridesmaids.
  - Song (Mrs. Hoppings and Chorus): "In Romance."
  - Song (Carajolo and Chorus): "Toreador's Song."
  - Trio (Dora, Nancy, and Susan): "Won't It Be a Lark."
  - Song (Arlie): "Ev'rbody's Awfully Good to me."
  - Duet (Susan and Carlton).
  - Quartette (Dora, Nancy, Gus, and Arlie): "Española."
  - Song (Nancy and Chorus): "The Language of the Flowers."
  - Scene (Terese and Gigli).
  - Quartette (Dora, Nancy, Mr. Probitt, and porter): "A Ride in the Puff Puff."
  - Finale.
- ACT II
- Opening Chorus.
  - Song (Governor and Chorus): "The Governor of Villaya."
  - Song (Pettifer and Chorus): "When I Marry Amella."
  - Song (Cora and Bridesmaids): "Keep Off the Grass."
  - Song (La Belle Bolero): "My Toreador."
  - Song (Mrs. Hoppings): "Maud."
  - Song (Arlie and Chorus): "Arlie."
  - Grand Chorus and March.
  - Finale.
- 10.50: News service; British official wireless news from Rugby; meteorological information; announcements.
- 11.1: Ern. Hall's Radio Revelers, with Hugh Huxham—  
"When Love Comes Stealing" (Rapeel).  
"Roll Up the Carpets" (Nixon).  
"To-day, To-morrow, Forever" (Nichols).  
"Thank! Da" (Carlton).  
"Who Knows" (Dixon).  
"Lady of the Morning" (Burton).  
Selected.  
11.30: God Save the King.

- 8.45: Hugh Olive (Tenor)—  
"Sea Road" (Haydn Wood).  
8.50: Alf. Featherstone and his Dance Orchestra—  
"Fox Trots," "Dance of the Paper Dolls" (Tusker).  
"Mother Goose Parade" (Breaux).  
9.0: Metropolitan Weather Forecast.  
9.1: Movements of lighthouse steamers.  
9.5: Alf. Featherstone and his Orchestra—  
"Fox Trots," "Beautiful" (Shay), "I Just Roll Along."  
9.15: Francis Hawaiians—  
"Love's Old Sweet Song."  
"Honolulu March"  
"Kuhua."  
9.25: Alf. Featherstone and his Orchestra—  
"Old Time Waltz," "Gems of Stanzas."  
9.35: Mrs. F. North—  
A Reading from "Just Human" (Crane).  
9.45: Alf. Featherstone and his Orchestra—  
A Quarter of an Hour's Dance Music.  
10.0: Weather.  
10.15: Alf. Featherstone and his Orchestra—  
Three-quarters of an Hour's Dance Music.  
11.0: Close down.

## 5CL

### MORNING SESSION.

11.30 to 2.0: See Friday.

### AFTERNOON SESSION.

3.0 to 4.30: General programme.

### EVENING SESSION.

6.0: G.P.O. chimes and resume of Moonee valley race results. 6.1: Children's Happy Moments. 6.30: Recordings. 6.45: 5CL's sporting service, including Moonee Valley race results; Felicity Institute activities. 7.2: Stock Exchange. 7.6: General market reports. 7.10: Rev. E. S. Klek, M.A., B.D., will speak on "The Great Deliverance of 1588." 7.25: An address to Boy Scouts. 7.40: An entertainment by "The Bird Lady." 7.55: Description of trial championship billiard final from Palace Billiard Saloon, described by P. J. Brady.

### NIGHT SESSION.

8.0: Chimes.  
8.10: From St. Peter's Cathedral, recital of choral and instrumental music.  
"I Behold, and Lo" (Dr. Blow).  
"Let Mine Ear" (Purcell).  
"O, Where Shall Wisdom" (Dr. Boyce).  
Solo, "Let the Bright Seraphim" (Handel).  
Two instrumental numbers (violin) by Bach, under Miss Sylvia Whittington's direction.  
Eight Part Motet.  
"The Surrender of the Soul" (Cornelius).  
Motet.  
"My Soul, there is a Country" (Perry).  
"Hallelujah Chorus" from "Mount of Olives" (Beethoven).  
From 5CL Studio.  
9.10: Meteorological information, including Semaphore ideas.  
9.11: Overseas grain report.  
9.12: Announcements.  
9.15: Modern Melodies by Monsieur Brunswick.  
9.18: Description of trial championship billiard final from Palace Billiard Saloon, described by P. J. Brady.  
9.28: Ruby Dunstan, lyric soprano—  
"The Nightingales at Lincoln's Inn" (Oliver).  
"Where the Bee Sucks" (Sullivan).  
9.34: A one-act comedy (produced by Jack Ham).

### Characters:

The Girl ..... Bessie Francis  
The Man ..... Bessie Francis  
Scene: The attic of West Manor, Sussex.  
9.50: Graham Burgin, baritone—  
"Lighterman Tom" (Gaul).  
"Silent Song" (Bevan) by "The Bird Lady."  
9.57: Monsieur Brunswick will entertain you again.  
10.3: Rita Dunstan and Graham Burgin—  
"Passage Birds' Farewell" (Mendelssohn).  
"The Voyagers" (Sanderson).  
10.9: More modern melodies by Monsieur Brunswick.  
10.15: News session.  
British official wireless news.  
Meteorological information.  
10.20: 5CL's sporting service, including Moonee Valley race results.  
10.30: Close down.

## 6WF

10.0: Tune in; gramophone and phonograph records from the studio. 11.0: Close down. 12.30: Tune in. 12.35: Markets, news, etc. 1.0: Time signal. 1.1: Weather bulletin supplied by the Meteorological Bureau of Western Australia. 1.3: "Care of the Sick" talk by Dr. Winifred Holloway, of London. 1.20: Music. 1.3: Close down. 3.30: Tune in. 3.35: Musical programme relayed from the Primrose Cafe de Luxe; 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. 7.50: Commercial and general information. 7.45: Popular science talk by Mr. Hal. McKull. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Musical programme from the studio; pianoforte solos by Miss Audrey Dean. 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: 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 6.45 p.m.

## 4QG

### EARLY MORNING SESSION.

7.43 to 8.30: See Friday.

### MORNING SESSION.

11.0 to 12.0: See Friday.

### MIDDAY SESSION.

1.0 to 2.0: See Friday.

### AFTERNOON SESSION.

3.0 to 4.30: See Friday.

### EARLY EVENING SESSION.

7.45: Lecture, arranged by the Queensland Agricultural High School and College.

### NIGHT SESSION.

Dance music interspersed with vocal and instrumental items.  
8.0: Alf. Featherstone and his Dance Orchestra—  
"Fox Trots"—"I Love to Hear you Singing" (Wood). "After My Laughter came Tears" ( Tobias).  
8.10: Annie Adams (Soprano)—  
"Away in Athlone" (Lohr).  
"Your Eyes Have Told Me So" (Carr-Hardy).  
8.20: Alf. Featherstone and his Studio Orchestra—  
"Fox Trots"—"By the Sapphire Sea" (Snyder), "Egyptian Rose" (Snyder).  
8.30: Francis Hawaiians—  
"Blue Danube."  
"Beautiful Kaala."  
"Four Leaf Clover."  
8.40: Alf. Featherstone and his Dance Orchestra—  
Jazz Waltz, "Revenge" (Lewis).

**7ZL**

**MIDDAY SESSION.**

11.30 to 1.30: See Friday. 2.0: Close down. 2.30: Description of Gowrie Hurdle, 2 miles, Moonee Valley, Melbourne; result of Glendewar Handicap. 3.35: Close down.

**AFTERNOON SESSION.**

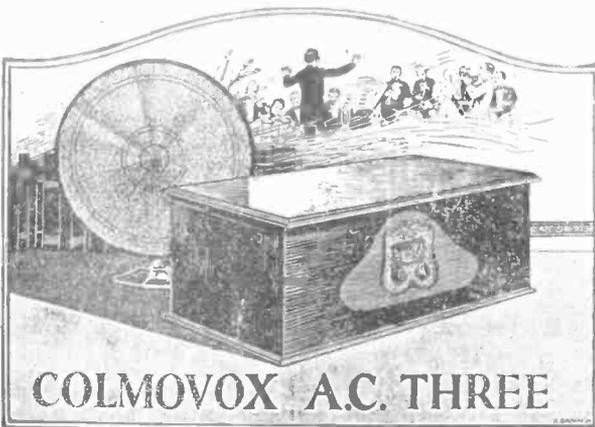
3.0: Description Woodlands Hunt Steeplechase, 3 miles, Moonee Valley, Melbourne. 3.30: Description of Bolunda Steeplechase, 3 miles, Moonee Valley, Melbourne. 4.0: Description of Spring Bank Corinthian, 9 1/4 furlongs, Moonee Valley, Melbourne. 4.15: Readings. 4.30: Description of Arundel Handicap, Moonee Valley, Melbourne. 4.35: Close down.

**EARLY EVENING SESSION.**

6.10: Moonee Valley race results. 6.30: "The Story Lady." 7.0: Answers to letters and birthday greetings. 7.15: News session. 7.30: Miss M. D. Wilson, Instructress of dressmaking, will speak on "Winter Fashions." 7.45: An officer of the Public Health Department will speak on "Health Matters."

**EVENING SESSION.**

8.0: Chimes.  
8.6: Recital of new record releases.  
National Military Band—March,  
"The Stars and Stripes" (Souza).  
Duet, Jones and Hare—  
"All by Yourself in the Moonlight" (Wallis).  
Debrov Somers Orchestra, selection—  
"Bumping Song" (Arr. Somers).  
Debrov Somers Orchestra—  
"Community Medley" (Arr. Somers).  
Debrov Somers Orchestra, selection—  
"Pause—Vocal Gems" (Gounod).  
O. T. Pattiman, organ solo—  
"Sanctuary of the Heart" (Ketelby).  
Pantomime—  
"Dick Whittington," Parts 1 and 2 (Arthurs).  
Strauss and Orchestra, march—  
"Radetsky March" (J. Strauss).  
Strauss and Orchestra, walse—  
"Voices of Spring" (J. Strauss).  
Troubadours, fox trot—  
"A Precious Little Thing called Love."  
Ted Lewis's Orchestra, fox trot—  
"Roses of Picardy" (Wood).  
Edgar Wallace, story—  
"The Man in the Ditch, parts 1 and 2" (Wallace).  
James Melton, tenor—  
"My Tonia."  
8.45: News session.  
10.0: Chimes.  
10.1: Close down.



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# Local Programmes, Thursday, July 4

## 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: 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. 10.2: 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.

### 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: Summary of news, "Sydney Morning Herald." 12.10: Rugby wireless news. 12.13: A Dickens reading by A. S. Cochrane. 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: Studio music. 1.50: Last-minute sporting information by the 2FC Racing Commissioner. 2.0: "Big Ben"; close.

### AFTERNOON SESSION

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

2.30: Programme announcements. 2.32: Items of general interest and music. 3.0: Pianoforte reproduction. 3.15: Popular music. 3.30: Gordon Hele, baritone—(a) "Close Props" (Charles), (b) "Youth" (Allitsen). 3.37: Studio music. 3.45: A reading. 4.10: Gwynneth Lascelles, mezzo-soprano—(a) "La Serenata" (Tosti), (b) "Blackbird's Song" (Scott). 4.17: Studio music. 4.24: Gordon Hele, baritone—(a) "To-morrow" (Keel), (b) "Red Devon by the Sea" (Clarke). 4.31: Popular items. 4.45: Stock Exchange, third call. 4.47: Gwynneth Lascelles, mezzo-soprano—(a) "Aubade" (Chaminade), (b) "Dawn, Gentle Flower" (Bennett). 4.54: Studio music. 5.0: "Big Ben"; close.

### EARLY EVENING SESSION

Announcer: A. S. Cochrane.

5.30: The chimes of 2FC. 5.35: The children's session, conducted by the "Hello Man"; letters and stories; music and entertainment. 6.30: Dalgety's market report (wool, wheat, and stock). 6.40: Fruit and vegetable markets. 6.43: Stock Exchange information. 6.48: Weather and shipping news. 6.50: Rugby wireless news. 6.55: Late sporting news. 7.0: "Big Ben"; late news service. 7.10: The 2FC Dinner Quartette, conducted by Horace Keats—(a) "Fairy Feet" (Finck), (b) "The Love Waltz" (Harold), (c) "At Gretna Green" (Fletcher), (d) "Hungarian Rhapsody No. 3" (Liszt).

### EVENING SESSION

Announcer: Laurence Halbert.

Accompanist: Ewart Chapple.

7.40: Popular music. 7.45: Programme announcements. 7.48: A record recital. 8.0: "Big Ben". From the State Theatre—the State Theatre Orchestra, conducted by Will Prior. 8.11: From the studio—Mona Deutcher, contralto—(a) "With a Swanlike Beauty Gilding" (Mozart).

(b) "Whither" (Schubert).  
(c) "The Post" (Schubert).  
8.18: Laurence Godfrey Smith, pianoforte solos.  
8.43: James Donnelly, songs at the piano.  
8.50: From the State Theatre, the stage presentation.  
9.20: From the studio, weather report.  
9.21: Mona Deutcher, contralto  
(a) "Secrecy."  
(b) "Fifinella" (Tchaikowsky).  
(c) "I Love Thee."  
9.27: A tale by the Storyteller.  
9.43: James Donnelly, songs at the piano.  
9.51: From the Hotel Australia—Cec Morrison's Dance Band.  
10.6: From the studio, late evening news service.  
10.14: From the Hotel Australia, Cec Morrison's Dance Band.  
10.28: From the studio, late weather report.  
10.30: From the Hotel Australia, Cec Morrison's Dance Band.  
10.57: From the studio, to-morrow's programmes.  
10.59: From the Hotel Australia, Cec Morrison's Dance Band.  
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. 8.15: News and information service from the "Daily Telegraph Pictorial." 8.45: 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. 11.30: Advertising hints. 11.40: Women's Session, conducted by Mrs. Cranfield. 11.45: A talk to the Younger Set by Marion Richards. 12.0: G.P.O. chimes. Special ocean forecast and weather report. 12.3: Pianoforte reproduction. An address by the American Consul-General (E. M. Lawton). 12.30: Shipping and mails. 12.35: Market reports. 12.40: "Sun" midday news service. 1.0: Studio music. 1.30: Talk to children and special entertainment for children in hospital, by Uncle Steve. 2.0: G.P.O. chimes. Close down.

### AFTERNOON SESSION.

Announcer: A. C. C. Stevens.

Accompanist: Kathleen Roe.

3.45: G.P.O. chimes. Popular music. 4.0: G.P.O. chimes. Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.15: Florence Grant, soprano—(a) "Sing, Sweet Bird" (Ganz), (b) "The Hallowed Hour" (Wood). 4.22: Enid Parker, violinist—(a) "Danse in G Minor" (Brahms), (b) "Serenade" (Pierne), (c) "Popular Medley." 4.30: Romano's Cafe Dance Orchestra, conducted by Bennie Abrahams. 4.37: From the Studio: Florence Grant, soprano—(a) "The Spring is in My Garden," (b) "Cupid" (Sanderson) (Tennent), (c) "Kookooburra" (Percerson). 4.39: "Sun" news service. 4.44: Enid Parker, violinist—(a) "Majur" (Mylinsky), (b) "Schon Rosmarin" (Kreislner). 4.50: Popular music. 5.0: Pianoforte reproduction. 5.15: Studio items. 5.27: Features of the evening programme.

### EARLY EVENING SESSION.

Announcer: Basil Kirke.

5.30: 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) "Friolette" (Ring), (b) "Gavotte" (Louis XIII.), (c) "The Fortune Teller" (Herbert), (d) "Cantilene" (Ganne), (e) "Serenade Espagnole" (Albeniz). 7.7: Australian Mercantile, Land, and Finance Co.'s report. Weather report and forecast by courtesy of Government Meteorologist. Producers' Distributing So-

ciety'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: Basil Kirke.

Accompanist: G. Vern Barnett.

8.0: G.P.O. chimes.  
David Craven, baritone.  
8.7: Rene Rich, violinist.  
8.14: The Snappy Trio, instrumentalists.  
8.24: Charles Lawrence and Frank Ryan, comedians.  
8.54: From the Victory Theatre, Kogarah—Horace Weber at the "Christie" Organ.  
9.14: From the Studio: Weather report.  
9.15: David Craven, baritone.  
9.22: Claude Corbett will talk on "General Sporting."  
9.37: Rene Rich, violinist.  
9.44: Charles Lawrence and Frank Ryan, comedians.  
9.54: From the Victory Theatre, Kogarah—Horace Weber at the "Christie" Organ.  
10.14: From the Studio:  
The Snappy Trio, instrumentalists.  
10.26: Late weather report.  
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. 11.45: Close down. 2.0: Music. 2.5: Women's radio service, by Mrs. Dorothy Jordan. 2.50: Music. 3.0: Address. 3.30: Close down. 5.30: Children's Session by Uncle George. 7.0: Music. 7.45: Feature story. 8.0: Miss Mary Neal, contralto. 8.7: Symphony Orchestra. 8.15: Mr. Clifford Lathlean, baritone. 8.30: Madame Betts-Vincent, in an illustrated talk on the making of music. 8.45: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 8.50: Mr. Leon Novello, tenor. 9.0: Weather report. 9.3: Address. 9.15: Symphony Orchestra. 9.25: Miss Mary Neal, contralto. 9.35: Humorous interlude by Mr. Jack Win and Mr. Heath Burdock. 9.40: Band selections. 9.50: Mr. Leon Novello, tenor. 10.0: Instrumental music. 10.30: Close down.

## 2UW

### MIDDAY SESSION.

12.30: Request numbers. 1.0: G.P.O. clock and chimes. Music. 1.15: Talk on Home-craft, by Pandora. 1.40: Music and request numbers. 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: Music. 8.15: Garden talk, by Mr. S. Hunt. 8.30: Request items. 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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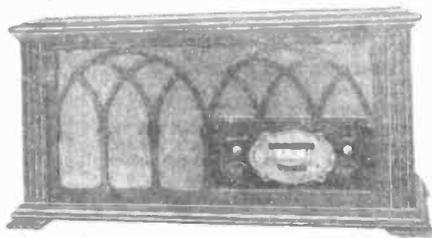
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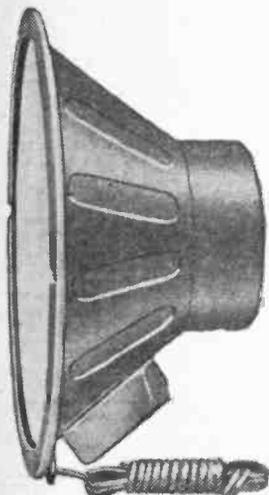
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# Interstate Programmes, Thursday, July 4

## 3LO

### EARLY MORNING SESSION.

7.15 to 8.15 See Friday

### MORNING SESSION.

11.0: 3LO's Afternoon Tea Recipe. Apple and Coconut Sandwiches. 11.5: Captain Donald MacLean will continue his series of talks on "Famous Women of History." 11.25: Miss B. Macaulay will continue her talks on "Astrology—A new factor in education." "Were you born between March 21st and April 20th?" 11.45: Matron Moreland will speak on "Mothercraft."

### MIDDAY NEWS SESSION.

12.0: Melbourne Observatory time signal Express train signal. 12.1: British official wireless news from Rugby: Reuters and the Australian Press Association 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.

### COMMUNITY SINGING.

12.20: Community singing, old-time choruses, conducted by Frank Haberley; Ern Hall's Radio Revellers with Hugh Huxham, Arthur Douglas, Mildred and Connie, violin and harp. 12.40: Stock Exchange information; prices received by the Australian Mines and Metals Association from the London Stock Exchange this day. 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. 1.55: Close down.

### AFTERNOON SESSION.

2.15: The Station Orchestra—"The Star Spangled Banner." "The Evolution of Dixie" (Lake). 2.25: Linda Wald, Soprano—Selections from her repertoire. 2.32: The Jedral Trio (Alva Hattenbach, violin; Edna Hattenbach, cello; John Simons, piano). The Trio—"To a Wild Rose" (MacDowell), "To a Water Lily" (MacDowell), "False Gentle" (Nevin). John Simons, piano—"From an Indian Lodge," "Will of the Wisp," "By a Meadow Brook" (MacDowell). The Trio—"The Rosary" (Nevin), "Narcissus" (Nevin). 2.50: Description of Public Schools football match, Melbourne Grammar School v. Wesley College, at M.C.C. by Mel Morris. The Station Orchestra—Overture, "Chal Romano" (Keteleby). 3.9: Linda Wald, soprano—"A Memory" (Park), "Wild Rose Lane" (Easthope Martin). 3.18: Joe Barrille, flute—"Gipsy Dance" (German). 3.20: Description of Public Schools football match, Melbourne Grammar School v. Wesley College. 3.30: The Station Orchestra—Selection, "The Desert Song" (Romberg). 3.40: Jean Sinclair, contralto—"Till I Wake" (Woodforde-Flinden), "I Pass Your Garden Singing" (Wynne). 3.47: The Station Orchestra: "In a Persian Garden" (Lehmann). 4.0: Description of Public Schools football match, Melbourne Grammar School v. Wesley College, at M.C.C. 4.15: Jean Sinclair, contralto—"The Ballist's Daughter," "Barbara Allen" (Old English). 4.22: The Station Orchestra: Musical gems of Tschakowsky. 4.30: "Herald" news service; Stock Exchange information; press scores in a billiard match, Walter Lindrum v. Willie Smith. 4.35: Description of Public Schools football match, Melbourne Grammar School v. Wesley College, at M.C.C. 4.45: Evensong, transmitted from St. Paul's Cathedral, Melbourne. 5.30: First day of V.C. races, at Flemington; races at Moonee Valley on Saturday; schools' football match. 5.35: Close down.

### CHILDREN'S HOUR.

5.45: Stories and entertainment for the children. 6.50: Captain Donald MacLean, more stories of adventure.

### 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 Tasmanian Government Tourist Department, L. S. Bruce will speak on "Winter Sports in Tasmania."

### NIGHT SESSION.

8.1: Programme announcements. 8.2: The Radio Revellers—"I Fell Head over Heels in Love" (Thayer), "Sonny Boy" (Brown), "Sally of My Dreams" (Kernell). 8.11: Linda Wald, Soprano—"Love, I have won you" (Landon Ronald). 8.14: The Radio Revellers—"You're a Real Sweetheart" (Friend), "The Tle Trot" (Penso), "Where the Cot, Cot, Cotton Grows" (Kilmer). 8.23: Arthur Douglas, Scotch comedian—"Mr. McGregor." 8.26: The Radio Revellers—"Cinnamon Cake" (Bernard), "My Fleurette" (Kimbrough), "Avajan Town" (Brown). 8.35: Ern Hall, Saxophone—Selected. 8.38: The Radio Revellers—"Shake that Thing" (Jackson), "Glad Rag Doll" (Ager), "You are Wonderful" (Ash). 8.47: Mildred and Connie, Harp and Violin—Selections from their Repertoire. 8.50: The Radio Revellers—"There ought to be a law against that" (Friend), "The Rose of Flanders" (O'Hagen).

"Oh, Ya Ya" (Frich). 8.59: Linda Wald, Soprano—"Love's Young Dream" (Moore). 9.2: The Radio Revellers—"Stars are the Windows of Heaven" (Mallet), "Only a Rose" (Prinzi), "That's Her Now" (Ager). 9.11: Bob Brookshaw, Piano—"Kulce and Knifty" (Bargy). 9.14: The Radio Revellers—"Song of the Vagabonds" (Prinzi), "Japanay" (Klerner), "Constantinople" (Cariton). 9.23: Arthur Douglas, Scotch Comedian—"Ohio." 9.26: The Radio Revellers—"Minnesota" (Wallace), "Fireworks" (Williams), "Roses of Yesterday" (Berlin), 9.35: Mildred and Connie, Harp and Violin—Selections from their Repertoire. 9.38: The Radio Revellers—"Jo Anne" (Ward), "Gypsy" (Gilbert), "Honey" (Simons). 9.47: Linda Wald, Soprano—"To You" (Speaks). 9.50: The Radio Revellers—"Flower of Love," "When the Right one Comes Along" (Gibert), "Wear a Hat with a Silver Lining" (Sherman). 10.0: News service; meteorological information; British official wireless news from Rugby; announcements. 10.15: The Radio Revellers—"One Alone" (Romberg), "Just give the Southland to me" (Bisset), "The Desert Song" (Romberg). 10.24: Arthur Douglas, Scotch comedian—"A Few Merry Moments." 10.27: The Radio Revellers—"A Room with a View" (Coward), "What a Girl" (Sanders), "Dynamite" (Henderson). 10.36: Mildred and Connie, Harp and Violin—Selections from their Repertoire. 10.39: The Radio Revellers—"The Dance of the Blue Danube" (Fisher), "Rosetime" (Hall), "Me and the Man in the Moon" (Monaco). 10.48: Harry Bennett, zylophone—Selected. 10.51: The Radio Revellers—"When you said Good Night" (Donaldson), "Dooley Dooley Do" (Sherwin), "Counting the Milestones" (Tilsley). 11.1: The Radio Revellers—"My Starlight" (Rose), "Daybreak" (Evans), "Slivering" (Doody), "Promiss Me" (Van Sooth), "Ready for the River" (Moret), "My Stormy Weather Pat" (Plantadosi), "What'll You Do?" (Cohn), "Do You?" (Plantadosi), "Pa's Old Hat" (Guy). 11.30: God Save the King.

## 4QG

### EARLY MORNING SESSION.

7.43 to 8.30: See Friday

### MORNING SESSION.

11.0 to 12.0: See Friday.

### MIDDAY SESSION.

1.0 to 2.0: See Friday.

### AFTERNOON SESSION.

3.0 to 4.30: See Friday.

### EARLY EVENING SESSION.

8.0 to 7.45: See Friday.

### NIGHT SESSION.

#### PART I

The first portion of to-night's programme will be provided by Mr. Eric Hayne's Party.

#### PART II

9.0: Metropolitan Weather Forecast. 9.1: Cecile Hives (Soprano)—"Bleak Wins" (Dorothy Posert). 9.5: W. H. Davis (Cornetist)—"Imperial Polka" (Round). 9.10: Fred. Beckett (Tenor)—"Sally Horner." 9.14: Mabel Theodor (Soprano)—"Pips of the Ring" (Kern). 9.20: W. H. Davis (Cornetist)—"Annie Laurie" (Round). 9.25: Cecile Hives (Soprano)—"For Thee" (Ethel Barnes).

#### PART III

9.30: A short Recital of electrically reproduced records. 10.0: News; Weather. Close down.

## 5CL

### MORNING SESSION.

11.30 to 2.0: See Friday.

### AFTERNOON SESSION.

3.0 to 4.30: Studio concert, interspersed with recordings.

### EVENING SESSION.

6.0: Chimes. 6.1: Children's Happy Moments. 6.30: The Blue Bird Girls' Choir. 6.45: 5CL's sporting service, including Port Augusta race results. 6.50: Athletics. 7.1: Senior Birthday League greetings. 7.2: Stock Exchange. 7.5: General market reports. 7.10: Dr. G. H. Wright, M.A., will continue his series of talks on Literature. 7.25: Mr. A. Bertram Cox will speak on "Lacrosse Activities." 7.40: Mr. A. Whittenbury, hints to poultry breeders.

### NIGHT SESSION.

8.0: Chimes. 8.10: Ruby Dunstan, lyric soprano—"The Blackbird's Song" (Scott), "The Bitterness of Love" (Dunn). 8.17: Recordings. 8.23: Graham Burgin, baritone—"Less than the Dust" (Amy Woodforde-Flinden), "Till I Wake" (Amy Woodforde-Flinden). 8.30: From the Adelaide Town Hall—The Lord Mayor's Ball. From 5CL Studio—Radio Problems Solved. "Atmos" will help you with your Radio troubles. End of Interval. From Adelaide Town Hall. Continuation of Lord Mayor's Ball. From 5CL Studio. 10.10: General news service. British official wireless news. Meteorological information. Announcements. Results of S.A. City and Suburban Amateur Billiard League tournament. 10.20: 5CL's sporting service, including Port Augusta race results. 10.30: Close down.

## 6WF

10.0: Tune in; gramophone and phonograph records from the studio. 11.0: Close down. 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. 1.2: Panatrophe hour relayed from Messrs. Musgrove's, Ltd., Lyric House Perth. 2.0: Close down. 3.30: Tune in. 3.35: Afternoon tea music relayed from the Carlton Cafe; vocal items from the studio. 4.30: Close down. 6.45: Tune in. 6.48: Bedtime stories by Uncle Duffy. 7.5: Light music by the Perth Piano Trio. 7.30: Commercial and general information. 7.45: Talk. 8.0: Time signal. 8.1: First weather bulletin. 8.3: Concert by the Perth City Band, conducted by Mr. Les. M. Price; instrumental items by the Maoriand Duo. 8.50: Late news items by courtesy of the "Daily News" Newspaper Co., Ltd.; station announcements; snips within range announcement. 9.5: 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 6.45 a.m.

## 7ZL

### MIDDAY SESSION

11.30 to 1.20: See Friday. 1.30: Close down.

### AFTERNOON SESSION

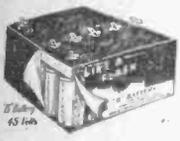
3.0 to 4.30: See Friday.

### EARLY EVENING SESSION

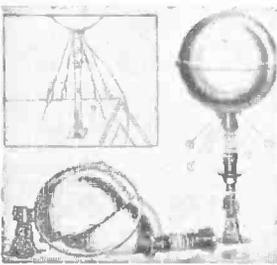
8.15: Recordings. 6.30: "The Story Lady," 1.0 answers to letters and birthday greetings by "Uncle David." 7.5: Betty Braithwaite will play the piano for the wee folk, Brahms' "Waltz." "Students' Serenade." 7.15: News session. 7.25: Aid H. H. Party will speak on "Independence Day."

### EVENING SESSION

7.30: Under the auspices of the "Come to Tasmania" organization, J. B. Reid will speak on "Tasmania for Tourists." 7.45: W. H. Cumine will speak on "Soccer." 8.0: Chimes. 8.15: 7ZL's Old-time Night, Alla Polacca Orchestra interspersed with gramophone; 7ZL Alla Polacca Orchestra, waltz "Honey-moon" (Waltz); Cecil Sherwood, tenor, "Eleanor" (Taylor); 7L Alla Polacca Orchestra, schottische "The Empire"; John McCormack, tenor, "Ahl Moon of My Delight" (Lehmann); 7ZL Alla Polacca Orchestra, baritone, "Finking" (Fools); Kiribay Orphan, contralto, "Boys' Song"; 7ZL Alla Polacca Orchestra, lancers, "Song of a Soldier"; Robert andford, baritone, "The Erl King" (Schubert); 7ZL Alla Polacca Orchestra, veleta, "Ever Thine" (Newman); Cecil Sherwood, tenor, "Soft Beams the Light" (Donizetti); 7ZL Alla Polacca Orchestra, two-step, "Denham" (Code); Kiribay Orphan, contralto, "The Pretty Creature"; 7ZL Alla Polacca Orchestra, waltz "Poet and Peasant" (Kendall); John McCormack, tenor, "Drink to Me Only"; 7ZL Alla Polacca Orchestra, polka, "Dixie" (Rofler); John Brownlee, baritone, "The Wolf Conquains"; 7ZL Alla Polacca Orchestra, caravosiana, "Varsoviana"; Alma Gluck, soprano, "Bohemian Cradle Song" (Metana); 7ZL Alla Polacca Orchestra, Highland schottische, "Keel Row"; J. C. G. tenor, "I Fear You Calling"; 7ZL Alla Polacca Orchestra, polka mazurka, "Polacca Flowers"; Kenneth Walters, baritone, "The Floral Dance"; 7ZL Alla Polacca Orchestra, waltz, "The Merry Widow." 9.60: News session. 10.1: Close down.



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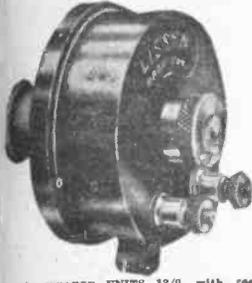
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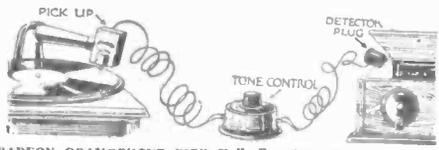
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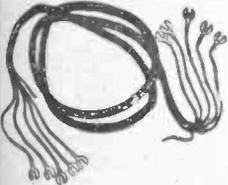
MIDGET ORMONDE VERNIER DIALS, 6/6.



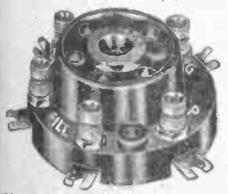
AMPLION RADIOLUX CONE SPEAKERS. R.C.O. SENIOR. £7/15/-. Now 56/-. Oak Cabinets.



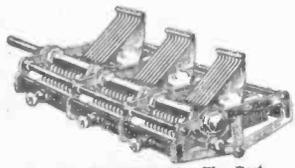
MUSIC MASTER HORN SPEAKER. Were £9. Now 70/.



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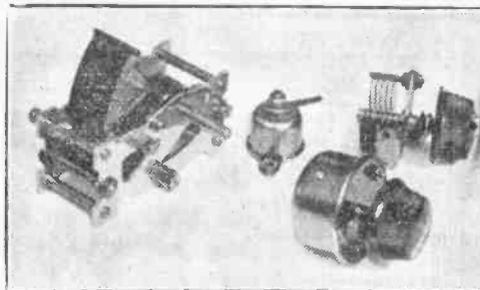
They are designed to fill a modern radio requirement.

The Technical Editor of "Wireless Weekly" recently tested the "Essanay" products, and recommends Essanay Screened Neutralising Condensers for the 1929 Neutrodyne described in the Exhibition number of this magazine.

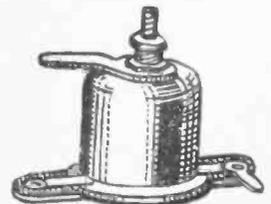
Essanay Condensers are fitted with one hole fixing.



Four Essanay Types of Condenser



### Essanay Variable Condensers



THE ESSANAY Screened Neutralising Condensers will be found an ideal type for the 1929 Neutrodyne. Price . . . . . 3/9  
ESSANAY Shielded Midget for receivers using screen grid valves and suitable midget coils, is particularly interesting to short wave enthusiasts. Price . . . 6/6  
THE ESSANAY standard .0005 M.F.D. S.L.F. variable condenser is a good solid engineering job, with a smooth running rotor. Price . . . . . 10/6  
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DAILY TELEGRAPH CHAMBERS, KING STREET, SYDNEY

# The WIRELESS WEEKLY RADIO INFORMATION SERVICE

Under the direction of Ross A Hull

**W.D. (Sydney)**—The crystal is not of much use below 20 metres. However, using small coils and capacitors, you will probably be able to get a little more than this with a carbonylum detector circuit. Try a 1000 p.f. aerial to first turn of primary. End of primary to earth. First turn of secondary to one end of crystal and to fixed plates of condenser. Other side of crystal to one side 'phones, and other side plates to moving plates of condenser, and to first turn of secondary.

**W.T. (North Queensland)**—Never heard of these type valves. Be carbocells, depends on type valves used. Please advise.

**J.B. (Seelye)**—Circuit O.K. No queries were asked to circuit.

**Subscriber (no address)**—Sorry, no room here at present. Many such circuits have been published since January.

**D.S. (Hawthick)**—Circuit you forwarded was a 10-getter. Back-of-panel wiring diagram published by article, May 10, 1929.

**F.C. (Carton)**—Grid leak or eliminator trouble. Try eliminator about 2ft. away from set, and do not leave off earth connection.

**Toby (Edgell)**—Not necessary. A stage of R.F. is usually necessary, as per Marco Four.

**F.P. (Tom Ugly's Point)**—Yes, set can be electrified. Eliminator in use is not giving sufficient current. Use rectifier in place of receiving valve.

**W.J. (Byde)**—Do not know WFA, but think you mean WFAI, the Eleanor Boling Byrd supply ship in the Antarctic.

**K.K. (Mt. Druitt)**—Probably VK2LD or VK2AR.

**A.B. (Kelsie)**—S.L.F. means straight-line frequency. It is merely a term used to differentiate between various types of condensers. The difference lies in the fact that the plates are shaped so that distance with unequal frequency separation are spread over the same range of the dial. Make the alteration to the circuit published in last issue as shown. Too many turns on reaction coil. Try removing about 10 turns. Transference of energy from parallel wires. I value S.W. set O.K. Do not know the set referred to. Glad you like "Proving Radio." No "P.R." clubs at Bathurst, but you might try to start one. Any readers interested please write to A. Hazelton, "Hazeldene," Kelso.

**GENERAL**—Mr. W. Hudson, Wyangulla Dam, via Woodstock, is anxious to meet anyone interested in short-wave receivers in the Cowra-Bathurst districts. Circuits and ideas exchanged.

**W.H. (Woodstock)**—Re grid leak, a matter of choice in S.O. receivers you must have a grid return for the detector. Re coils, see Midget S.O. Four. Glad you like "P.R." No wire was attached to your letter. Such samples should be placed in envelopes and pinned to letter. Be brains to work on your finding is correct.

**P.M. (The Split)**—No, you cannot expect 3LO during daytime on a one-valve receiver. Countryman's One Valve (improved circuit appeared last week). Bulletin 'phones good.

**J.P. (Lewisham)**—Place a 1mf. condenser tested on coils in series with valve. Leave out connection from filament to earth.

**J.M.P. (Sans Souci)**—Connect "C" battery and 'phones in series with primary winding. You should hear a loud click. When secondary winding is being "tick" will not be quite so loud. If no click is heard, there is a breakdown. Secondary (if intact) may be used as a choke. No need to remove defective winding. A 100,000-ohm fixed resistor may be placed across primary if it is burned out.

**A.I.S. (Willingoughby)**—Two-volt valves O.K. Depends on make. Circuit of Improved Countryman's One Valve appeared last week. Look up queries for a few more. S.G.B. plus plenty of small S.W. receiver circuits. Countryman's One will do the work required.

**V. (Byde)**—The Marco Four.

**B.R.M. (Queensland)**—Is power laid on? If so, suggest wet "B" battery. Description will appear soon. If no power is available, Carbocells may be used.

**V.R.L. (Queensland)**—Circuit O.K. A442 may be used as per Marco Five. Any good 4-1 transformer will be O.K. Resistance R8 is necessary, unless you have facilities for making taps on your battery for a few volts. S.G.B. plus voltage is critical. C bias will depend on type used.

**J.C. (Bardwick)**—All Electric Three.  
**J.C. (Kingslton)**—Neon lamps can be obtained

from B.G.E. The other lamp mentioned is not a neon lamp, but may be used.

**W.T. (Queensland)**—A S.W. adaptor, using S.G.R.F. stage and ordinary detector was published recently. Article by Graffam. Distance-getter.

**J.N. (Singleton)**—Same aerial O.K. 40ft. high, vertical. Either Philips or Radiotron valves will be O.K.

**L.W.P. (Willingoughby)**—You should have repeated your queries. They would have occupied this space.

**S.C. (Woolahra)**—Loosen aerial coupling. Inside aerial O.K. Picks up less outside interference, as house is partly screened. Try a .0001 fixed condenser in series with the aerial. Loosening aerial coupling (as suggested above) should help considerably.

**H.L. (Haberfield)**—Yes, certainly. About a month.

**A.T.R. (Yanco)**—Providing number of valves in set does not exceed three, eliminator O.K. If more than three valves are used a special rectifier costing 12/6 must be obtained in place of the 201A.

**W.C. (Swansea)**—Glad our advice remedied trouble. Bell transformers O.K. Angus and Robertson publish a book dealing with the design and construction of power transformers and chokes.

**J.A.I. (Glenside)**—Your answer has already appeared.

**A.N.B. (Tamworth)**—Transformer O.K.

**S.F. (Cloveley)**—Probably RPN, but it is hard to tell you unless you mention what wave length was used.

**GENERAL**—Can any reader please supply Mr. H. Walker, Redcliffs, Victoria, with a copy of WIRELESS WEEKLY dated February 1, 1929. (Understand this is the full address.)

**W.E.B. (Mittagong)**—Take our first R.F. valve; insulate one of the filament prongs with a piece of blotting paper; replace valve; tune in local station to full volume; adjust neutraliser till station fades almost right out; remove insulation from valve prong; station should now be at good volume. Next, remove any condensers in series with aerial; insulate first filament prong again; and repeat procedure, only on this occasion tune in an inter-State station (if possible) near the centre of the broadcast band, say H.O. Neutraliser with each R.F. valve, removing insulation from previous valve prong before proceeding with neutralising.

**D.W.A. (Birkenhead)**—Sorry, no room in queries to publish complete list of ham abbreviations; but it may be possible to print them on another page in a future issue.

**B.R.C. (Clifton Hill)**—B409. Eumeco condensers quite O.K.

**W.D. (Victoria)**—We do not keep blue prints. These can be obtained from Economic Radio Co., Levensons, Colville Moore, etc. PI O.K.; valves mentioned quite suitable. Aerial 50 feet long, including lead in, otherwise you will get interference from 3LO and 3AR. See below.

**GENERAL**—Can any reader please oblige Mr. William Dohman, 131 Victoria Street, East Brunswick, N.J., Victoria, with a copy of WIRELESS WEEKLY containing the PI circuit?

**P.J.T. (Lithgow)**—You can learn all about ohms, condensers, coils, and trickle chargers from "Proving Radio." Each of the subjects mentioned in your letter have already been treated in "Proving Radio." The rest of your letter puzzles: "Will you tell me how to make the New Year Three which you have described in this week's WIRELESS WEEKLY?" Please elucidate.

**F.B. (Normanhurst)**—Circuit is a modified Retzius. Yes, can be used for S.W. reception if proper coils and condensers are used. A415 not ideal for second stage. This valve is a special detector. Sug. get 340y for 3AR. See below.

**H.L. (Langueville)**—Sorry, no room for these circuits in queries columns at present. Follow out R.F. stage of Marco Four (not the A.C. edition, but the original Marco, last published February 1, 1929).

**C.A.P. (Tweed River)**—A S.W. adaptor is quite as simple to control as an ordinary S.W. set. The connection from E to E and F is correct. It may be left out if desired, but a rule of step up in volume is noticed when this contact is made, though (using may be a little broader. On S.W., however, this is not so important, as generally tuning is very sharp. Rheostat must be used.

**J.P. (South Australia)**—Browning Drake or Neutrodyne. Blue Prints can be obtained from local radio shops or from Colville Moore, Economic Radio, Levensons, etc., of Sydney.

**"MIDGET" (Queensland)**—Condenser C4 not absolutely necessary, but was used in All-Empire to help balance up the circuit. No; do not try the coil kit mentioned, but it should be quite O.K. Some audio as used for Midget and All-Empire will be O.K. for Air King. If you want a really good receiver, build the Signal Box Four, published last week. Parts suitable.

**"MUG" (Woolowin)**—Depends on the type set to be used. Suggest you see the A.R.R.L. Handbook, wherein data charts will enable you to construct the transformer to your own particular requirements. Several important factors (required before construction can be commenced) were not stated by you.

**M.H.T. (Hazelbrook)**—Grid leak trouble or grid bias. May be broken down primary in transformer.

**L.S. (Hamilton)**—Circuit O.K. Condensers can be gauged, if filament returns from condensers are common, the condensers can be gauged. Coils as per 1929 Neutrodyne. Maximum capacity of neutralising condenser .0005. Maximum capacity of reaction condenser .00035. Everything else in order.

**W.A. (Blakehurst)**—Potentiometer is used to vary grid bias. Do not favor the valve mentioned. Having tuning when rheostat is turned more than 3/4 all way on may be caused through using too high filament voltage, too high plate voltage on detector, wrong value grid bias, faulty detector valve. Addition of condensers mentioned would diminish filament voltage; you neutralise the Solodyn. If inbalanced this would help set to howl.

**W.M.B. (Graville)**—Enlarging coil former will not assist. It will only raise wave length. Trouble is that circuit is out of date, and practically useless. Suggest you build the "Kuk" or one of the simpler crystal receivers which have appeared in these columns from time to time. In the meantime, try making these few alterations. Over the coil (in its centre) wind 20 turns 24 gauge D.C.C. Now rewire as follows: Aerial terminal to first turn of 20 turn coil (which should be wound in same direction as larger coil), earth terminal to other end of 20 turn coil. One side of crystal to fixed plates of condenser and to first turn of large coil. Other side of crystal to one side of 'phones. Other side of 'phones to moving plates of condenser and to last turn of large coil. If tuning still a little broad, remove one or two turns at a time from the smaller coil until tuning is O.K. Use a good aerial-earth system.

**O.W.G. (Queensland)**—You ask for four copies of O.W.G., but enclose no stamps. We have one of each of these copies on hand for you. A notice has been published in these columns.

**GENERAL**—Can any reader please supply Mr. E. W. Goodman, Thurlgoona Station, Cumnahilly, Queensland, with copies of WIRELESS WEEKLY dated April 5, 12, May 31, March 29, 1929.

**M.R.H. (Lans Cove)**—Primary of transformer probably cause of trouble. Also look to "B" battery.

**GENERAL**—Can any reader please supply Mr. W. H. Fane, South Pambula Post Office, New South Wales, with copies of WIRELESS WEEKLY, dated February 1 and March 29, 1929.

**H.P.M. (Kamsilah)**—It would take an expert radio-electrician to alter your commercially-made receiver to one using four stages of S.O. radio frequency, and I doubt whether the set would be very stable using this number of S.G. R.F. stages. In any case, your

## QUERY COUPON

If you are in difficulties about reception or set-construction, let us know, and we will endeavor to help you right. Make your questions brief to the point, and, where possible, show layout and wiring design. Under no circumstances will answers to queries be made by letter or by telephone. All answers will appear in the columns of this department. Please enclose stamps to indicate how you wish to receive this coupon.

The Radio Information Service  
 147 Rialto Building, Sydney  
 Please enclose the coupon with your questions to indicate how you wish to receive this coupon.

present cabinet would not be large enough, and many additional parts would be required. It would be no easy matter to make the alterations. Judging by general report, three stages of S.G. R.F. give practically all the gain that could ever be desired. The writer made up a set using three stages, and it has been very successful. Four stages would probably be rather impractical. Suggest you use two stages of tuned S.G. R.F., and one stage of three element valve R.F. You will find that Inter-State stations can be heard in daytime with this arrangement if local reception conditions are at all favorable.

**C.K. (North Sydney).**—Have given up headache powders, and taken to Aspro. Trouble is probably in detector valve. With the valves you are using, you will require more than 4½ volts grid bias. See instruction sheet with valve.

**F.R. (Wollongong).**—You are one of many. Don't let a little fault in your receiver upset you. The reason why your set fades away a few seconds after switching on is probably because your "A" battery is flat.

**GENERAL.**—Can any reader please supply Mr. A. J. Smith, Weabonga, via Tamworth, with back numbers of WIRELESS WEEKLY containing "Proving Radio"?

**Renown Three (Leeton).**—May be using too much plate voltage on detector; plate and grid leads too close; wrong grid bias; flat "B" battery. No need to alter coil, condenser should be O.K. No Amperite made to that resistance. All parts mentioned will be in order, providing Amperites are suitable to valves used. Thanks for comment.

**GENERAL.**—Can any reader please supply Mr. Edward Arnold, Oxford Street, City (full address given), with a copy of WIRELESS WEEKLY containing a good four-valve short-wave receiver using Radiokes Screen Grid Kit.

**J.C.H. (Five Dock).**—Primary 15 turns, 24 gauge wire on 3in. former. Space quarter-inch. Secondary (L2), 47 turns. On other side of primary, quarter-inch away, wind L3 (trap circuit), 50 turns. 4½ volt battery too large. 1½ volt is all that is required with the stabilising unit.

**E.M.W. (Taree).**—Back of panel diagrams are practically useless, as the person drawing them usually makes an effort like that of a well-inked fly. Try reversing connections to condenser. Place R.F. choke in series with plate of detector valve and P terminal of first transformer. You are tuning the set wrongly. Adjust the second condenser until you hear a hissing sound in the telephones. Get this sound as loud as possible. You will find there is one spot where the hissing gradually dies away. This is where you should work. If the hiss goes out with a pop, look to detector voltage and grid leak. Tune with the first dial, adjusting the second dial so that

the maximum "hiss" or oscillation (not squeal) can be heard in the telephones. When tuning in a telephony station, operation is different. Proceed with your Go-Getter as above until the carrier is struck. Now tune the first dial until the carrier wave is at a low pitch, and adjust the second condenser until it is loud again. You will find the carrier getting louder each time. You may have to do this four or five times, and your ultimate dial reading will usually be many degrees from where you first struck the carrier. When eventually you have the carrier at its loudest point, gradually adjust the second condenser until the set is out of oscillation, i.e., until the carrier howl stops. Now adjust the first condenser, until the telephony can be heard at good volume. Finish off by re-adjusting the second condenser. If the phone station cannot be got with the detector out of oscillation, reduce plate voltage and increase grid leak resistance.

**"Marco" (Narrabri).**—3¼in. formers. If 3½in formers used, reduce number of turns slightly. No need to alter coils for valves mentioned.

**W.R.A.R. (Tasmania).**—Sorry, no room for such a circuit at present. Suggest you first procure one of the valves mentioned (i.e., the E442), and use it as shown in the accompanying sheet. The other valves may be used in the set, providing D.C. is used. No, do not recommend use of A.C. on the 415, as you will hear nothing but hum. A415 is special detector. Filter will take care of fluctuation if properly designed. Build up filter from circuit shown with the Economist "B" eliminator, shown in WIRELESS WEEKLY a few months ago, but use 4 mfd. condensers, tested 500 volts, and 15 Henry chokes.

**A.D.F. (Ashfield).**—Charging rate would be too high. If you proceed with your idea, the plates of the accumulator would probably buckle, and paste would fall to the bottom of the cell, causing a short. Primary 15 turns, secondary 50 turns. 3in. diameter former. Place a 002 fixed condenser across secondary of transformer.

**W.H.L. (Sydney).**—Doubt if you can manage it yourself, but it's worth trying. 24-gauge D.C.C. rather large for such a job, but approximately 80-100 turns will be required for the secondary. For coupling R.F. to detector, wind about 35 turns as R.F. plate coil, and couple up to detector secondary. Using a S.W. S.G. receiver on the broadcast band, you will find it necessary to use larger condensers to tune over the whole band.

**E.M.F. (Wollongong).**—Circuit O.K. Keep transformer well away from receiver. Arrangement O.K. Any valve of general purpose type can be used as a rectifier, providing filament current does not exceed the possible output of the transformer secondary. Valves O.K.

**W.H.L. (Glebe Point).**—Would cost 1d per night at the most.

Now that winter is here and the rain and cold keep you indoors, rake out that old set and let us modernise it so that you may get the best out of the air. You will find our prices right and our work guaranteed. Let us quote you—any advice free.

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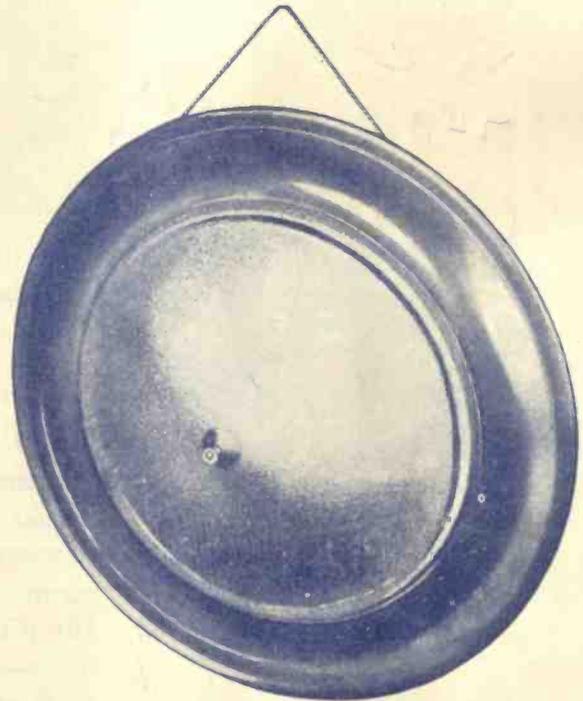
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