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Wireless Weekly

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INCORPORATING "RADIO IN AUSTRALIA & NEW ZEALAND"

VOL. 14, No. 23.

FRIDAY, NOVEMBER 29, 1929

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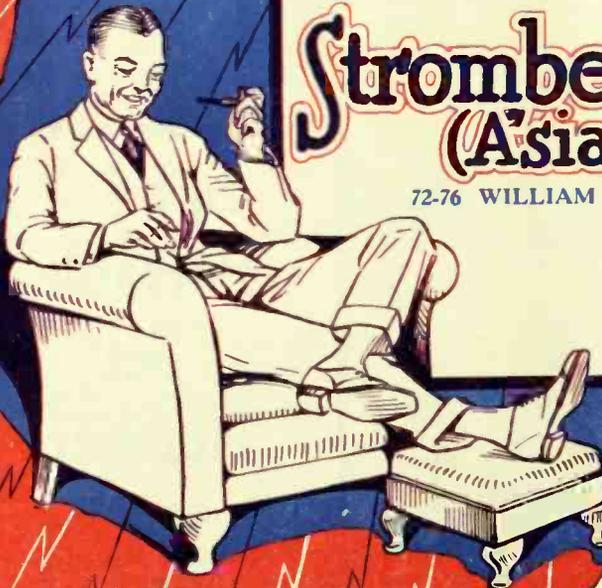
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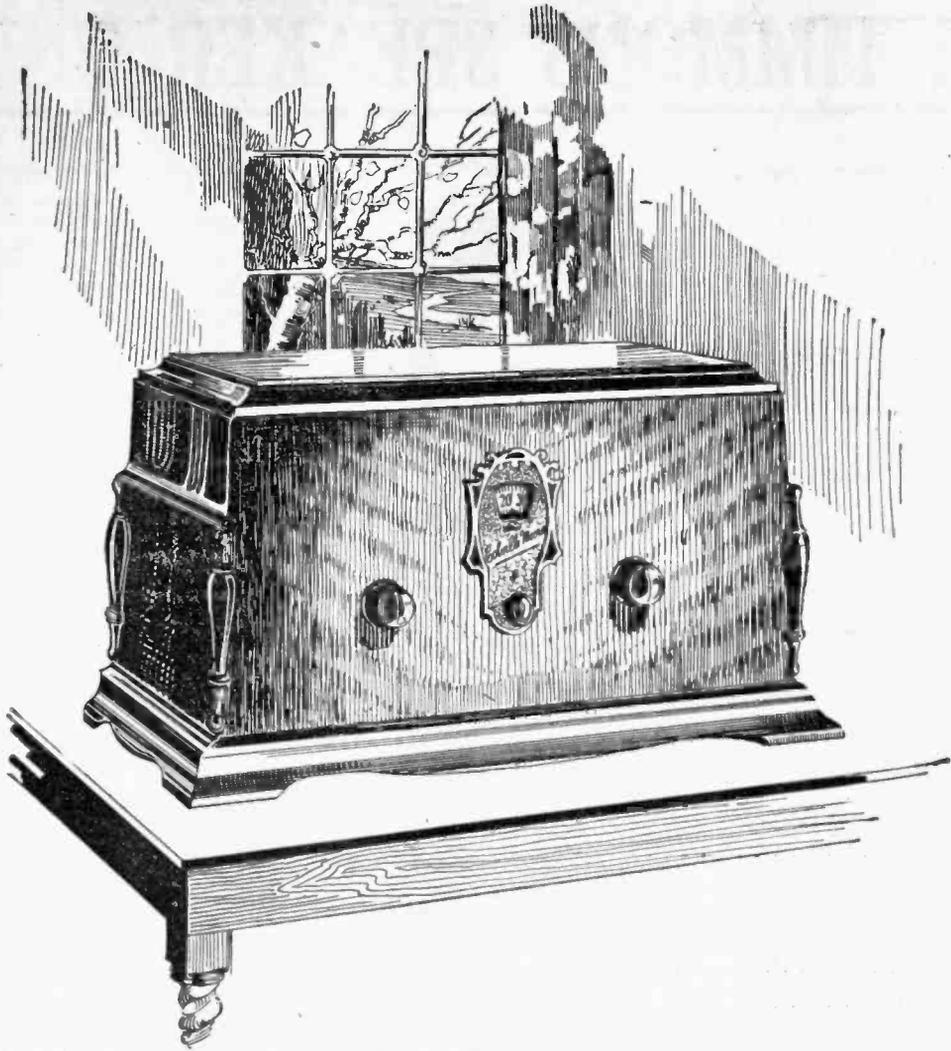
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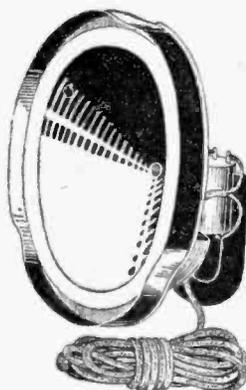
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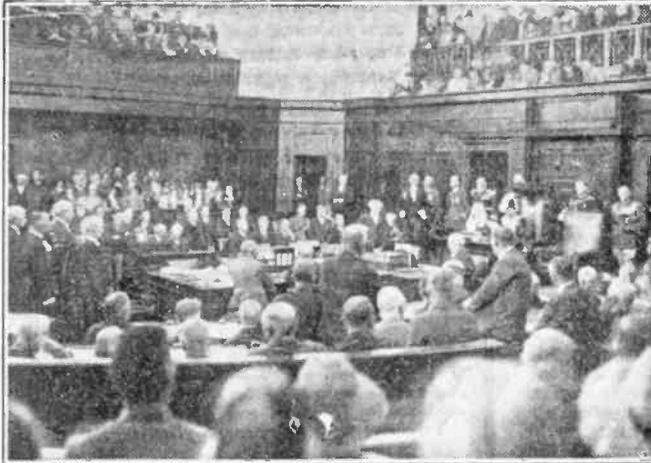
- PILOT RESISTOGRADS (New
Type), Used as Volume Control,
Eliminator Voltage Control, etc., 6/6**

PRICE'S RADIO SERVICE

WINGELLO HOUSE, ANGEL PLACE

Box 3326PP

For the first time a sitting of Federal Parliament was broadcast last week by 2FC. On the opening day microphones were installed in the Chamber, and the complete ceremony was put on the air. The accompanying illustration shows the chamber.



Extraordinary difficulties are in the way of broadcasting from Houses of Parliament, as Mr. Williams, who has a long experience in the political arena, recounts in the article below. The Scullion Government is the first to look favourably at broadcasting.

BROADCASTING PARLIAMENT

By H. P. WILLIAMS

DURING the past week the Sydney "A" Class stations added another world's record to their long list. This was brought about by 2FC broadcasting for the first time a sitting of the Federal Senate and the opening of the Commonwealth Parliament by His Excellency the Governor-General.

Some years have elapsed since 2FC managed to break into the State Parliament in New South Wales. Those behind the scenes still have very vivid recollections of the struggle which ensued between the Speaker and the Premier over that transmission. The management of 2FC, after many interviews with the Speaker, at last persuaded him of the glory that would, in years to come, attach to the fact that he was the first Speaker in any House of Parliament in the civilised world who had presided over a sitting, proceedings of which were broadcast to the world at large. This evidently appealed to the Speaker, and he permitted the lines to be run in and the microphones to be installed.

Sir George Fuller Objected

As soon as the then Premier of New South Wales—Sir George Fuller—heard that the sitting was to be broadcast, he entered the strongest protest, and this was backed up by his Ministers. The struggle then commenced, and all sorts of influences were brought to bear on the Speaker, in the hope of preventing the broadcast. The Speaker, however, was adamant, and claiming his right as controller of the domestic arrangements of the House over which he presided, he determined to keep faith with the Broadcasting Company.

It will be remembered that, by the strange workings of Providence, one of the most contentious measures ever before the State Parliament happened to come on during that day, and some of the most uproarious scenes ever known in a Parliament occurred. There were two factors which led to these scenes. A certain portion of the House, led by members of the Ministry, who were opposed to broadcasting, apparently wished

to make this first transmission so delicate that there would be a public outcry against the broadcasting of Parliament. Another part of the House saw in the fact that microphones were installed in the Chamber an opportunity to make the proceedings as farcical as possible, so as to discredit the Ministry for having brought down such a contentious measure as the "Ne Temere Bill." The result, however, was the greatest disappointment to both these elements in the State Parliament. The transmission was an outstanding success, and the Broadcasting Company received in the vicinity of 7000 letters appealing for more broadcasting from Parliament. In fact, several years elapsed before this agitation for more transmissions from the State House ceased.

In the light of this experience, it can be easily understood that all the efforts of the broadcasting stations to get into the Federal House at Canberra were side-tracked. Applications were made on many occasions to the Bruce Government, but were invariably turned down.

Consent of the President

When the new Labor Government was elected, immediate steps were taken to test the feeling of the Scullin Cabinet on the question of broadcasting from Canberra. Mr. W. J. Long, M.P., the Member for Tang, acted as an intermediary, and approached the new Prime Minister and several members of the Cabinet, who promised to bring the matter before the Ministry in their official capacity. The new Cabinet looked at the whole matter from the broadest aspect, and immediately agreed that the opening day's proceedings of the new Parliament should be made available to those resident in different parts of the Commonwealth, as well as to the more fortunate who could be present at Canberra.

The Broadcasting Company, having received permission to go ahead, then had to face certain traditional difficulties which attach to Federal Parliamentary proceedings. As the broadcast was to take place in the

Senate, it was necessary to get the consent of the President of that Chamber, who has absolute control over the domestic affairs of his own portion of Parliament. Then the greatest care had to be exercised in the installation of microphones. No chance could be taken, as once the division bells summoning members to the Chamber commenced to ring, no outsider is permitted to place a foot on the floor of the Senate Chamber. This meant that if anything had gone wrong with wires or microphones, no member of the broadcasting staff could enter the House to adjust the trouble.

No Wires, no Obstructions

A spot had then to be chosen from which the announcer could describe the proceedings without in any way interfering with the proceedings of the House. No wires were allowed to obstruct the passages, nor stands to block the view of any members or officers taking part in the proceedings. How all these difficulties were overcome and a successful transmission was carried out, is now known to listeners in this and the adjoining States. The Governor-General, His Excellency Lord Stonehaven, entered into the spirit of the proceedings, as did also Senator Kingsmill, President of the Senate. In delivering their speeches they saw that reception in the microphone was not overlooked, and in this way made for the general success of the first broadcast from the Federal Parliament.

That the Scullin Ministry has made a move in the right direction is demonstrated by the large mail that has been received by the Australian Broadcasting Company, Limited, from listeners who were able for the first time to be present, through wireless transmission, at the opening of the Federal Parliament and to hear the proceedings of a sitting of the Senate. It is hoped that now that the ice has been broken, the new Ministry will make the utmost use of wireless in granting to listeners the privilege of hearing debates on outstanding subjects, at various periods from the Federal Capital.

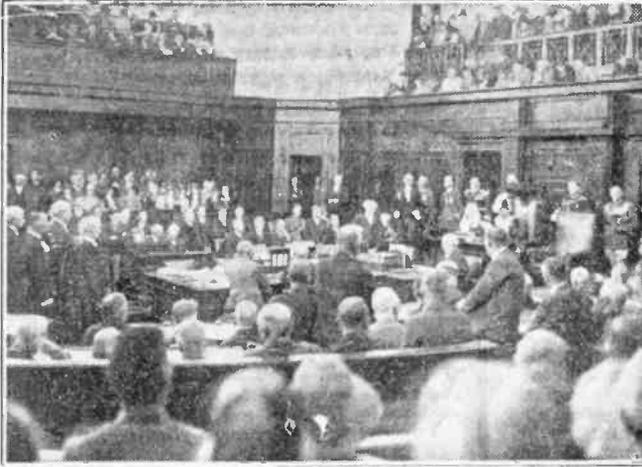
Vol. 14, No. 23
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November
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Incorporating 'Radio in Australia & New Zealand'

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Interstate Programmes, Wednesday, December 4

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: See Friday.

MORNING SESSION.

10.30 to 12.30: As usual.

MIDDAY SESSION.

1.0 to 1.15: As usual. 1.30: Transmission from the Rotary Club Luncheon.

EDUCATIONAL AND SPORTING.

2.0: Reading—Lord Burrell's Advice to His Son—Mr. John Coyne. 2.15: Description of Novice Handicap five furlongs. Ballarat Turf Club's Meeting at Dowling Forest, by Eric Welch. 2.20: Musical Interlude. 2.25: The Wonders of Nature—Mr. J. D. Jennings. B. Ag. Sc. 2.40: Musical Interlude. 2.45: Description by Eric Welch of Jumpers' Flat Race, one mile and a quarter. Ballarat Turf Club's Meeting at Dowling Forest. 2.30: Modern Democracies—Hon. J. H. Keating, LL.B.

THE RADIO MATINEE.

3.5: Paul Jeacle and his Band—"Love Thrills" (Bryan). "There's Your Leaf Cello" (Wending). 3.10: Alban Whitehead, baritone—"If I Might Come to You" (Squire). 3.15: Description by Eric Welch of Ballarat Turf Club Plate, six furlongs, Ballarat Turf Club's Cup Meeting at Dowling Forest. 3.20: Alban Whitehead, baritone—"The Floral Dance" (Moss). 3.24: Bruce Wite, piano—"Sparks" (Maxman). 3.27: Doreen Bruey, entertainer—"Husbins" (Leslie Weston). "Ain't It Nice?" 3.33: Paul Jeacle and his Band—"My Sugar" (Palmer). "Lila" (Cottler). 3.43: Description by Eric Welch of Greenfield Handicap, one mile, Ballarat Turf Club's Cup Meeting at Dowling Forest. 3.50: Carmen Mascagni, soprano—"Solveig's Song" (Gring). "Lament of Isis" (Bantock). 3.57: Paul Jeacle and his Band—"Let Me Dream in Your Arms Again" (Gilbert). "Last Night in Dreamy Slumberland" (Leslie). 4.3: Alban Whitehead, baritone—"Love's Old Sweet Song" (Molloy), selected. 4.5: "The Funeral" (Palmer). "Castles in the Air" (Smith). 4.13: Description of Ballarat Turf Club Purse, six furlongs, Ballarat Turf Club Races at Dowling Forest, by Eric Welch. 4.20: Doreen Bruey, entertainer—"On O'Connell I Shall Have to Call the Guard" (Elliott). "The Funeral of the late Mrs. Odgson." 4.27: Carmen Mascagni, soprano—"I Know a Lovely Garden" (D'Mardelot), selected. 4.34: Paul Jeacle and his Band—"Here We Are" (Kahn). "Round Evening" (Whitney). 4.43: Description of Flying Handicap five furlongs, Ballarat Turf Club's Races at Dowling Forest, by Eric Welch. 4.50: Close down.

THE CHILDREN'S CORNER.

3.45: "Little Miss Koekaburra".
EVENING SESSION.
 6.30: French, German and Swedish. Melody broadcast. 6.45: Cultivating Good Health—Some Common Errors Concerning the Teeth—Mr. F. P. Byrne. E.D.Sc. 7.0: Time signal. 7.1: Countryman's Session. 7.25: Modern Steels—Effect of Chromium on Steel—Prof. J. Nellis D.Sc. and Mr. SCHUMANN. 7.45: Our Radio Service to Listeners—Mr. H. K. Love. 8.0: Time signal.

NIGHT SESSION.

8.0: National Broadcasting Orchestra—"Taramella" (Father Moreno, New Norcia, W.A.). 8.6: "Hale and Dale"—entertainers—Modern Melodies. 8.13: Leslie Raphael—Syncopeated Pianisms. 8.20: Fred. Whitlow—Two Character Sketches from Dickens. "Dan" Pennothy—"Granfather".
HALF AN HOUR WITH SCHUMANN.
 8.26: National Broadcasting Orchestra—A Selection of Schumann's Songs.
 8.34: "Dedication"—A Love Story of Robert Schumann, introducing the Composer's most popular works, specially written for broadcasting by Gordon Ireland.

AN INTERLUDE OF HILARITY.

9.4: "The Tatlers"—A Light Comedy Company—present "A Patchwork Revue".
 9.24: National Broadcasting Orchestra—Selection from "Merric Ensland" (German).
 9.34: A Song Cycle—"The Daisy Chain," by Liza Lehmann. Twelve Songs of Childhood; Quartette. "Foreign Children" (contralto). "Fairies"; baritone. "Keepsake Mill"; soprano. "If No One Ever Marries Me"; tenor. "Stars" ("Escape at Bedtime"); quartette. "Seeing the World"; contralto. "The Ship That Sailed Into the Sun"; soprano. "The Swing"; baritone. "Mustard and Cress"; tenor. "The Moon"; quartette. "Thank You Very Much Indeed"; quartette. "Blind Man's Buff"; Singers: Soprano, Madame Ella Kingstons; contralto, Miss Winnie Mabvery; tenor, Mr. Val. Woff; baritone, Mr. Ernest Sage.

THE NIGHT MUSIC.

9.57: National Broadcasting Orchestra—Duet for Flute and Clarinet. "Lo, Here the Gentle Lark" (Bishop); Orlandini Intermezzo. "Egyptia" (Zamecni).
 10.5: "Hale and Dale"—More Popular Melodies. 10.13: Leslie Raphael—Syncopeated Pianisms. 10.20: British Official Wireless News. Meteorological information. Items of interest.

10.30: Paul Jeacle and his Band—Dance Music. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 181 Metres).

MORNING SESSION.

8.15 to 11.0: As usual.

MIDDAY SESSION.

12.0 to 2.0: As usual.

AFTERNOON SESSION.

2.1: Quartette—Virtuoso String Quartette. 2.8: So-

prano—Dusolina Giannini. 2.13: Piano and Cello—Beatrice and Margaret Harrison. 2.20: Soprano—Dusolina Giannini. 2.24: Orchestral—Mark Weber and his Orchestra. 2.28: Comedian—Frank Crumit. 2.31: Entertainers—Rudy Vale and his Connecticut Yankees. 2.34: Monologue—Leonard Henry. 2.37: Hawaiian Music—Hilo Hawaiian Orchestra. 2.40: Comedienne—Helen Kane. 2.43: Band—H.M. Coldstream Guards Band. 2.49: Violin—Pritz Kreisler. 2.52: Soprano—Margaret Sheridan. 2.55: Band—H.M. Coldstream Guards Band. 2.58: Quartette—De Reszke Singers Male Quartette. 3.1: Request Numbers. 3.20: The Pre-School Child—Creating a Love for Music—Miss M. Lush. 3.35: Musical Interlude. 3.40: Home Management—Scientific Cleansing—Miss Kathleen Bemingsfield. 3.55: Musical Interlude. 4.0: Women's Status in Other Countries—Mrs. Nora Collison. 4.15: Musical Reproduction. 5.0: G.P.O. Chimes. 5.1: Musical Reproduction. 5.30: Weather data. 5.45: Close down.

EVENING SESSION.

6.15: Dinner Music. 7.30: What's on the Air Tonight? 7.32: Sporting Results. 7.35: Latest Musical Releases. 8.0: G.P.O. Chimes.

NIGHT SESSION.

8.1: Why We Behave as Human Beings—The Acquisitive Instinct—Prof. J. A. Gunn, M.A., B.Sc., Ph.D.
 8.15: St. Vincent de Paul's Band—Selection, "Echoes of the Opera" (Rimmer).
 8.25: Russell Callow, tenor, and R. Nicholson, bass—"The Gendarmes" (Offenbach). "Vale" (Kennedy Russell).
 8.32: Pierrot and Pierrette—Pierrot with the piano and Pierrette with her saxophone.
 8.40: Jessie McMichael, soprano—"The Flutes of Arcady" (W. G. James). "Tiptoes" (Molly Carey).
 8.47: St. Vincent de Paul's Band—Descriptive: "From a Russian Village" (Marsden), Overture to "Faust" (Gounod).
 8.57: Alan Bell, comedian—"Viola" (Sterndale Bennett).
 9.5: St. Vincent de Paul's Band—Cornet Solo, "Parted" (Tosti).
 9.9: Russell Callow, tenor, and R. Nicholson, bass—"Soldiers and Comrades" (Adlam). "The Two Beggars" (Lane Wilson).
 9.16: St. Vincent de Paul's Band—Waltz, "Amour-euse" (Berger); Medley, "Savoy Welsh" (Somers).
 9.24: Jessie McMichael, soprano—"Love Went A-Riding" (Frank Bridge). "Dream Valley" (Quiller).
 9.31: Pierrot and Pierrette—Pierrette with her Saxophone and Pierrot with the Piano.
 9.39: A Mystery Story—"The Idol's Eyes"—J. Howlett Ross.
 9.54: St. Vincent de Paul's Band—Selection, "William Tell" (Rossini).
 10.4: Weather and News.
 10.14: Alan Bell, comedian—"The Independent Candidate" (Seaton).
 10.22: St. Vincent de Paul's Band—Selection, "Gems of Harmony" (Rimmer).
 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual. (See Friday). 7.45: Lecture, a talk arranged by the Queensland Agricultural High School and College.

NIGHT SESSION.

8.0: The Studio Dance Orchestra, dance music.
 8.10: Mrs. Lillian Corrigan, harpist, selected melodies.
 8.20: The Studio Dance Orchestra, dance music.
 8.30: John Morrison, entertainer—"Norah" (Anon.). "The Bachelor" (Anstey).
 8.40: The Studio Orchestra, dance music.
 8.50: Walter Land, tenor—"The Pirate" (Turner-Haley). "Lise Stars Above" (Gault).
 9.0: Metropolitan weather forecast; movements of lighthouse steamers.
 9.5: The Studio Dance Orchestra, dance music.
 9.15: Joyce Buckham, soprano—"The Passing of the Moon" (Purcell). "Once a Farmer and his Wife" (Welsh folk song).
 9.25: The Studio Dance Orchestra, dance music.
 9.35: Monument and Harrow, another argument.
 9.50: The Studio Dance Orchestra, dance music.
 10.0: News and weather.
 10.15: The Studio Dance Orchestra, dance music.
 10.25: Arthur Aldridge, tenor, selected numbers.
 10.35: The Studio Dance Orchestra, dance music.
 11.0: Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

Morning Session, Afternoon Session, and Evening Session to 7.40: As usual. 7.40: Rev. E. S. Kiek, M.A., B.D., will speak on "A Henpecked Hero." 7.55: An address to Boy Scout Music.

NIGHT SESSION.

8.10: The Cotton Pickers—"The Savoy American Medley" (Somers). "Honey".
 8.17: Community singing by the Apollo Radio Choir.
 8.27: Helen Fisher, violinist—"Hejne Kati" (Hungary).
 8.32: Gladys Harvey, soprano, selected.
 8.39: The Cotton Pickers, "That's Her Now."
 8.43: Harold Durdin, baritone—"The Lute Player"

(Alltisen). "The Song of the Tinker."
 8.50: A one-act play (produced by Beryl Alford), in which Beryl Alford and Frank Johnstone will take part.

9.0: Chimes.
 9.1: Weather.
 9.2: Overseas grain report.
 9.3: Announcements.
 9.5: Community singing by the Apollo Radio Choir.
 9.15: The Cotton Pickers, "Invercargill March."
 9.19: Gladys Harvey, soprano, selected.
 9.28: Helen Fisher, violinist, "Capriccio Viennols" (Kreisler).
 9.30: Harold Durdin, baritone—"Somewhere South of Shanghai" (Lumsdaine). "Tally Ho" (Leoni).
 9.37: Instrumental number.
 9.41: Community singing by the Apollo Radio Choir.
 9.51: Helen Fisher, violinist, "Air on G String" (Bach).
 9.55: Beryl Alford, elocutionist.
 10.0: The Cotton Pickers, "Rio Rita" (Tierney).
 10.4: Community singing by the Apollo Radio Choir.
 10.15: News, sporting.
 10.30: Dance music.
 11.0: Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION, MORNING SESSION, MIDDAY SESSION, THE RADIO MATINEE, and EARLY EVENING SESSION, as usual.
EVENING SESSION—8.0: Chimes. 8.2: Grand Concert arranged by the Coolgardie Liedertafel. 10.5: Announcements. 9.5: Coolgardie Liedertafel. Perth. Dance Band. 10.59: Weather. 11.0: Close down.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.30 a.m.: Selections. 11.34: Midlands weather forecast. 11.35: Selections. 11.55: Tasmanian stations 9 a.m. weather report. 12.0: G.P.O. clock chimes the hour. 12.1: Shipping information; mail notices; Housewives' Guide. 12.8: Selections. 12.30: "Mercury" news service; announcements. 12.40: Selections by the Melody Masters. 1.5: Railway auction sales. 1.10: Selections by the Melody Masters. 1.20: Transmission from the Imperial Hotel, Collins Street, Hobart—speeches at the Rotary Club luncheon. 2.0: Close down. 2.1: Selections. 3.4: Weather information. 3.5: Selections. 4.15: Readings from the "Illuminated Tasmanian Mail." 4.30: Close down. 6.15: Children's Corner, with Bertha Southey Brammall. 7.19: Recorded music. 7.30: News session; Mr. Ryerdy who continues her talks on "Local Industries." 7.50: James Council will speak on "Topics of the Week." 8.1: Selections. 8.15: A record recital of popular numbers specially arranged by Findlay's Music Warehouse. 9.30: News session. 9.45: Record recital. 9.0: G.P.O. clock chimes the hour. 10.1: Close down.

2UW

Radio Broadcasters, Ltd., Paling's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION

12.30 to 4.30, as usual.

EVENING SESSION

5.30: Children's Hour.
 6.30: Close.
 7.0: Request numbers.
 7.45: Talk by Mr. F. E. Buckell, "Photo-electric cell and its applications."
 7.50: Music
 8.0: Band concert.
 9.0: Comments on Foreign Affairs by Mr. J. M. Prentice.
 9.10: Music.
 10.30: Close.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION, 7.15 to 8.30: as usual.

MIDDAY SESSION, 10.0 to Noon: as usual.

EVENING SESSION.

6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Orchestral Dinner Concert. 7.55: News from the "Sun." 8.0: Clock and Chimes. 8.1: Overture, "Semiramis." 8.10: Vocal and Orchestral Items. 10.15: Close down.

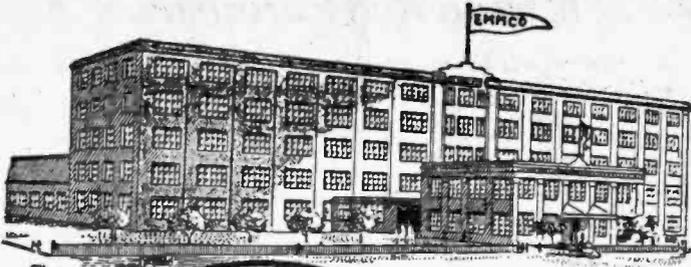
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Interstate Programmes, Thursday, December 5

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: As usual.

MORNING SESSION.

10.30 to 12.30: As usual.

MIDDAY SESSION.

1.0 to 1.15: As usual.

EDUCATIONAL SESSION.

2.0: Great Australians—David Syme—Mr. J. Howlett Ross.

SPORTING INTERLUDE.

2.13: Description of Dowling Forest Hurdle Race, two miles, by Eric Welch; Ballarat Turf Club's Meeting at Dowling Forest, 2.20: M.u.c. Explained and Illustrated—Mr. C. E. Monteith, F.R.C.O. 2.25: Musical Interlude. 2.43: Description of Trial Handicap, five and a half furlongs, by Eric Welch; Ballarat Turf Club's Meeting at Dowling Forest. 2.50: Moments with Mark Twain—by the Storeteller.

THE RADIO MATINEE.

3.5: Royal Brass Band—March "Flying Squadron"; cornet solo. "My Ole Kentucky Home." 3.13: Description of Ballarat Cup, one mile and a quarter, by Eric Welch; Ballarat Turf Club's Races at Dowling Forest. 3.20: Elsie Westcott, violin—"Mazur" (Mylharski). "Hindoo Chant" (Rimsky-Korsakov). 3.27: Victor Baxter, tenor—"At the Midhour of Night" (Gowart). "Little Northern Window" (Anthony Dore). 3.34: Royal Brass Band—Selection from the works of Schubert. 3.43: Description of Welter Handicap, seven furlongs, Ballarat Turf Club's Meeting at Dowling Forest, by Eric Welch. 3.50: Comedy Sketch—"South-West" and "South-West," by Vera Berlinger. Gertrude Mullins, Mrs. Maurice Dudley; Hon. Arthur Cunningham; Arthur J. Fay. Scene: A Seat in a London Park. 4.5: Royal Brass Band—Reverie. "Just a Memory." "Lovin' Smiles of Sister Kind" (Gounod), from "Faust." 4.13: Description of Ercildoune Steeplechase, two miles, Ballarat Turf Club's Races at Dowling Forest, by Eric Welch. 4.20: Elsie Westcott, violin—Brindisi Waltz (Alardi), "Lullaby" (Cyril Scott). 4.27: Victor Baxter, tenor—"Thou Art Risen, My Beloved" (Coleridge Taylor). "The Evening Star" (Edith Harrhy). 4.34: Royal Brass Band—Cornet solo. "Watchman, What of the Night?"; fox-trot. "Dream Kisses." 4.43: Description of Farwell Handicap, six furlongs, Ballarat Turf Club's Cup Meeting at Dowling Forest, by Eric Welch. 4.50: Acceptances and barrier positions for the V.R.C. Benevolent Fund Race Meeting at Moonee Valley on Saturday, December 7. 4.55: Close down.

THE CHILDREN'S CORNER.

8.45: "Bobby Bluejean" and "Clever Clarice."

EVENING SESSION.

8.35: Melody Broadcast. 6.40: Let's Talk about Our Animals—More about the Sheep Dog—Mr. J. I. Moore. 6.55: Musical Interlude. 7.0: Time signal. Countryman's Session. 7.25: For the man on the land. 7.40: News. 7.45: The Latest Books—Capt. C. H. Peters. 9.0: Time signal.

NIGHT SESSION.

8.0: National Broadcasting Orchestra—Overture. "The Magic Flute" (Mozart).
8.2: Alban Whitehead, baritone—"Qui Idem" (Mozart) (from "The Magic Flute").
8.15: You will hear the Outstanding Personality of Queen of the Week.
8.30: Paul Jeacle and his Band—Dance Music.
8.40: Mac Seaton, soubrette—"Old Pals are the Best Pals After All."
8.43: Paul Jeacle and his Band—Dance Music.
8.53: Leo Fisher, tenor—"My Dear" (Ball).
8.58: Paul Jeacle and his Band—Dance Music.
9.6: Alban Whitehead, baritone—"A Popular Hit."
9.9: Paul Jeacle and his Band—Dance Music.
9.19: Mac Seaton, soubrette—"Goodness Gracious Greece."
9.23: Paul Jeacle and his Band—Dance Music.
9.37: Leo Fisher, tenor—"Duna" (MacGill).
9.38: Paul Jeacle and his Band—Dance Music.
9.46: Alban Whitehead, baritone—"New Number."
9.50: Paul Jeacle and his Band—Dance Music.
10.0: Mac Seaton, soubrette—"Pagan Love Song."
10.7: Paul Jeacle and his Band—Dance Music.
10.17: Leo Fisher, tenor—"O Flower Divine" (Wood).
10.16: Paul Jeacle and his Band—Dance Music.
10.24: Mac Seaton, soubrette—Selected.
10.30: News Session.
10.40: Paul Jeacle and his Band—Dance Music.
10.50: Leo Fisher, tenor—"Fat L'il Feller" (Gordon).
10.53: Paul Jeacle and his Band—Song and Synopation.
11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 184 Metres).

MORNING SESSION.

8.15 to 11.0: As usual.

MIDDAY SESSION.

12.0 to 2.0: As usual.

AFTERNOON SESSION.

2.1: Orchestra—The "Black and his Orchestra."
2.4: Quartette—Criterion Male Quartette (Negro Spirituals). 2.7: Violin—Frederick Fradkin. 2.10: Comedian—Freddie Rose. 2.13: Orchestra—Freddie Black. 2.15: The Dime Stairs Duet—Bernard and Robinson. 2.19: Cornet—Herbert L. Clarke. 2.22: Soubrette—Marion Harris. 2.25: Band—Walter B. Rogers' Brass Band. 2.28: Duet, Bernard and Robinson. 2.31: Or-

chestral—Hawaiian Novelty Orchestra. 2.34: Comedian—Vernon Dalhart. 2.37: Band—Walter B. Rogers' Brass Band. 2.40: Quartette—Criterion Male Quartette. 2.43: Orchestra—Cleveland Symphony Orchestra. 2.61: Baritone—Richard Bonelli. 2.64: Violin—Frederick Fradkin. 2.67: Band—Vassella's Italian Band. 3.0: Request Numbers. 3.0: From Kooyong Tennis Courts—Description of Inter-State Tennis Matches by Mr. A. W. Dunlop.

MAINLY FOR WOMEN.

3.20: Christmas Presents—Miss Hattie Knight. 3.35: Musical Interlude. 3.40: Food and Cookery—The Development of Electric Cooking—Miss B. Osborne. 3.55: Musical Interlude. 4.0: Your Health and Appearance—The Value of Sport in your Daily Life—Miss Evelyn N. Ellis. 4.15: From Kooyong Tennis Courts—Description of Inter-State Tennis Matches by Mr. A. W. Dunlop. 4.30: Musical Reproduction. 4.45: Evensong transmitted from St. Paul's Cathedral. 5.15: Weather. 5.30: From Kooyong Tennis Courts—Description of Inter-State Tennis Matches by Mr. A. W. Dunlop. 5.45: Close down.

EVENING SESSION.

6.15: Dinner Music. 7.30: What's on the Air Tonight? 7.32: Sporting Results. Acceptances and barrier positions for the V.R.C. Benevolent Fund Races at Moonee Valley on Saturday, 7th December. 7.35: Latest Musical Releases. 8.0: G.P.O. Chimes.

NIGHT SESSION.

8.0: Round and About by the Odd Men Out—Whose Subject To-night is "Do You Like Fish?" 8.15: A Studio Reproduction of Piano Concerto in A Minor, Op. 16 (Grieg)—Allegro Molto Moderato. Adagio, Allegro Moderato Molte e Marcato. By Arthur De Greef and the Royal Albert Hall Orchestra, conducted by Sir Landon Ronald. ¼
8.45: A Studio Reproduction of "Valkyrie" (Wagner). Characters: Brunnhilde, Mmes. Frida Leider and Florence Austral; Sieglinde, Coeta Lyungberg; Siegmund, Walter Widlop; Wotan, Frederik Schorr; Hunding, Howard Fry; the Eight Valkyries. 10.20: Weather. News. 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual (See Friday). 7.45: Lecturette, "Our Rural Resources," No. 2, by Mr. J. F. F. Reid, editor of the Queensland Agricultural Journal.

NIGHT SESSION.

8.0: Group I. Grand opera, 4QG Symphony Orchestra (conducted by Erich John), overture, "Norma" (Bellini); Phyllis Verner, soprano, "Stride la Vampa, from "Il Trovatore" (Verdi); 4QG Symphony Orchestra, selection from "Carmen" (Bizet); Stanley Tamblin, bass-baritone, "She Alone Charmeth my Sadness," from "Irene" (Gounod). Group II. Eastern Suite—4QG Symphony Orchestra, "Egyptian Idyll" (Julia Nixon), "Turkish Patrol," march (Michodis); Hilda Cooper, contralto, "Till I Wake" (Woodford Flinder); 4QG Symphony Orchestra, Oriental fantasia, "Yishma El" (Jalowiez); George Williamson, tenor, "I'll Sing Thee Songs of Arab" ("Clay"); 4QG Symphony Orchestra, "Egyptian Ballet," second movement (Lutigin); "In the Bazaar" (Leigh). 9.0: Weather. 9.1: Movements of travelling dental clinic. 9.2: Group III. Classical; Phyllis Verner, soprano, "Still as the Night" (Bohni); 4QG Symphony Orchestra (conducted by Erich John), "L'Arlesienne Suite" (Bizet); "Prelude"; Stanley Tamblin, bass-baritone, "Song of Hybras, the Cretan" (Elliott); 4QG Symphony Orchestra, ("L'Arlesienne Suite," "Bizet"; "Adagio" and "Parade"); Group IV. Miscellaneous; Hilda Cooper, contralto, "The Dream Minuet" (Beethoven); 4QG Symphony Orchestra, selection from "H.M.S. Pinafore" (Gilbert and Sullivan); George Williamson, tenor, "Father O'Flynn" (Stanford); 4QG Symphony Orchestra, overture from "Jolly Bobbers" (Suppe). 10.0: News and weather; close.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

Morning Session, Afternoon Session, and Evening Session to 7.20: As usual. 7.20: Dr. G. H. Wright will continue his series of literature talks. 7.35: A talk on tennis. 7.45: Mr. A. M. Whittenbury, Hints to Poultry Breeders.

NIGHT SESSION.

8.0: Programme review.
8.10: G. Carubia (mandolinist) and C. Vincenco (steel guitar).
8.17: Fred Williamson, tenor—"Sea Fever" (John Ireland). "Phyllida" (Coates).
8.24: Hilda Reimann, violinist—"Meditation from Liszt's 'Massenet'"; "Tambourin" (Tossez).
8.31: Rex and Don.
8.41: Jean Finlay, pianist, "Gavotte" (Brahms).
8.48: Linda Waid, soprano.
8.55: Hilda Reimann, violinist. "Humoresque" (Dvorak).
9.7: Meteorological information, including Semaphore tides.
9.2: Overseas grant report.

9.3: Announcements.

9.3: G. Carubia (mandolinist) and C. Vincenco (steel guitar).

9.9: Fred Williamson, tenor—"My Lady Sleep" (Cyril Scott). "Crying Waters."

9.17: Jean Finlay, pianist—"Towing Pateh" (John Ireland). "Ragamuffin" (John Ireland).

9.28: Linda Waid (soprano) and Jean Sinclair (contralto), selected.

9.33: Hilda Reimann, violinist—"Valse" (Kuhlan). 9.47: Don and Rex.

9.57: G. Carubia (mandolinist) and C. Vincenco (steel guitar).

10.1: Jean Sinclair, contralto.

10.9: Jean Finlay, pianist.

10.15: News; sporting service, resume of Ballarat race results.

10.30: Dance music.

11.0: Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION, MORNING SESSION, MIDDAY SESSION, THE RADIO MATINEE, and EARLY EVENING SESSION, as usual.

EVENING SESSION.—8.0: Chimes. 8.2: Perth City Band. 8.14: James Carnochan, baritone. 8.17: Perth City Band. 8.29: James Carnochan, baritone. 8.32: Perth City Band. 8.41: James Carnochan, baritone. 8.47: Perth City Band. 9.1: Announcements. 9.6: A.G. Revue Company, produced and presented by Harry Graham. Artists: Harry Graham, entertainer; Dorothy Manning, soprano; David Lyle, tenor; Ruben Betts, crooning baritone; and Beryl Scott, pianist. 10.1: What's on the Air To-morrow? 10.5: Temple Court Dance Band, conducted by Merv. Lyons. 10.59: Weather. 11.0: Close down.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.30 a.m.: Morning melodies. 11.34: Midlands weather forecast. 11.35: Adeline Eager will speak on "Household Hints." 11.50: Musical selections. 11.55: Tasmanian stations 9 a.m. weather report. 12.1: Shipping information; mail notices; Housewives' Guide. 12.3: Selections. 12.30: News service; announcements. 12.40: Selections. 1.5: Railway auction sales. 1.10: Selections. 1.30: Close down. 3.0: G.P.O. clock chimes the hour. 3.1: Selections. 3.4: Weather information. 3.5: Musical selections. 4.15: A representative of the Child Welfare Association will speak on "Before School Age." 4.30: Close down. 6.15: Children's Corner, with "Uncle David" and "The Story Lady." 7.10: Recorded music. 7.30: News session. 7.40: Under the auspices of the "Come to Tasmania" Organisation J. J. Reid will speak on "Tasmania for a Holiday." 7.50: Sid Jones will speak on "Cricketer Activities." 8.0: G.P.O. clock chimes the hour. 8.1: Selections. 8.15: 7ZL's Community Singing. 8.45: One-act play, "A Marriage has been Arranged." 9.0: Community Singing (continued). 9.30: News session. 9.45: Selections. 10.1: Close down.

2UW

Radio Broadcasters, Ltd., Pallin's Building, Ash St., Sydney (Wavelength, 365 Metres).

MIDDAY SESSION

12.30 to 4.30, as usual.

EVENING SESSION

5.30: Children's Hour.

6.30: The Meccano Club. Close.

6.45: Close.

7.0: Request numbers.

7.45: Garden talk by Mr. S. H. Hunt.

9.0: Soprano and contralto recital.

9.0: Comments on Foreign Affairs by M. M. Prentice.

9.10: Music.

10.30: Close.

MADAME HESELEVA, soprano, will be on the air from 3LO on December 3 in a programme of operatic numbers. Madame Heseleva has had much experience in both grand and light opera, and studied at the famous Petrograd Conservatorium, giving many recitals throughout Southern Russia.

AN original musical programme will be given from 3LO on December 6 by Gregory Ivanoff, when, under the title of "Echoes from the Theatre," many well-known classical and popular numbers will be introduced. Every type of musical performance will be visited; grand opera, musical comedy, and vaudeville will be taken in turn.

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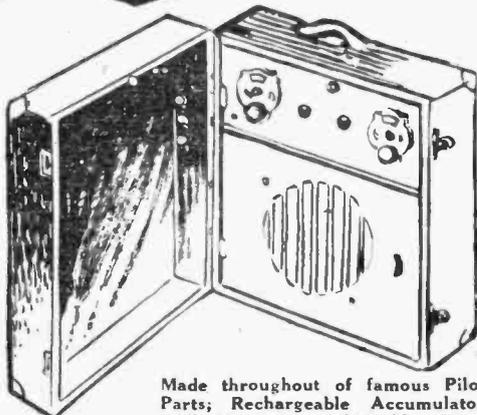
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Local Programmes, Thursday, December 5

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Sydney Morning Herald."
- 7.7: Austradio musical reproduction.
- 7.45: Malls and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the studio.
- 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
- 10.32: A.B.C. Racing Observer.
- 10.45: HORACE WEBER at the GRAND ORGAN.
- 11.0: HOUSEHOLD HELPS: Domestic Notes by Miss Ruth Furst.
- 11.10: CABLES (Copyright). Sun-Herald and A.P.A. News Service.
- 11.15: MORNING DEVOTION.
- 11.30: Austradio musical reproduction.
- 11.53: British Official Wireless Press.
- 12.0: "Big Ben"; Stock Exchange and metal quotations.
- 12.5: ELEANOR ROSS—"With the Poets—Alfred Tennyson."
- 12.20: Midday weather forecast and weather synopsis. Special produce market session for the man on the land, supplied by the State Marketing Board.
- 12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch-hour music.
- 2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 2.7: To-day's acceptances, by the A.B.C. Racing Observer.
- 2.17: Studio music.
- 2.27: Announcements.
- 2.30: THE RADIO MATINEE—2.30 to 4.30 p.m.
- 2.30: THE POPULAR TRIO.
- 2.42: GERTRUDE GRAY, mezzo-soprano—(a) "Pale Moon" (Logan). (b) "Trees" (Rasbach).
- 2.49: THE POPULAR TRIO.
- 3.0: C. N. BAERYTZ will speak on "Spoken English."
- 3.15: THE POPULAR TRIO.
- 3.30: GERTRUDE GRAY, mezzo-soprano. (a) "Still as the Night" (Bohm). (b) "Sunday" (Brahms).
- 3.37: MODERN BALLADS.
- 3.52: THE POPULAR TRIO.
- 4.0: MRS. E. HUME will tell of "Experiences of a Lady Announcer."
- 4.15: THE POPULAR TRIO.
- 4.28: Stock Exchange, third call.
- 4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Good-night" stories, told by Aunt Goodie.
- Ward Leopold, the Strummin' Serenader.
- 6.45: Dinner-hour music.
- 7.20: A.B.C. sporting service.
- 7.25: Special country session. Stock Exchange resume. Markets. Weather forecast. Late news from the "Sun" and "News." Truck bookings.
- 7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- Our feature to-night is the "Miser's Scene" from "La Cloches de Corneville." This will be preceded by a short humorous sketch, "Father Buys a Crystal Set." 2BL offers a little of everything, unusual brass quartette numbers, song groups, droll Irish stories, violin solos, smart monologues, a talk of interest, and the weekly sound film feature.
- 8.0: FROM THE CAPITOL THEATRE: The Overture, Horace Sheldon and J. Knight Barnett at the Wurlitzer.
- 8.12: FROM THE STUDIO: PEGGY DUNBAR, contralto.
- 8.19: FROM THE CAPITOL THEATRE: J. KNIGHT BARNETT at THE WURLITZER.
- 8.29: "FATHER BUYS A CRYSTAL SET"—A comedy sketch, in one act, by Lynwood Roberts and Company.

8.49: THE COUNTRY MAN'S WEATHER SESSION—

- (a) New South Wales forecasts.
- (b) Inter-State weather synopsis.
- 8.51: THE MISER'S SCENE FROM "LA CLOCHES DE CORNEVILLE." Under the direction of Lynwood Roberts, who will play the part of the Miser. Vocal numbers by the Wireless Singers, directed by Joseph Post.
- 9.31: FROM THE CAPITOL: The Stage Presentation. Horace Sheldon's Capitoliens, with J. Knight Barnett at the Wurlitzer.
- 9.48: FROM THE HOTEL AUSTRALIA: Cec. Morrison's Dance Band. FROM THE STUDIO—
- 10.0: ILLUSTRATED MUSIC LECTURE—"The Art Song"
- 10.15: Announcements.
- Late official weather forecast.
- 10.28: FROM THE HOTEL AUSTRALIA: Cec. Morrison's Dance Band.
- 11.30: CLOSE. NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
- 8.16: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Malls and shipping information.
- 8.50: Memory melodies.
- 9.0: This morning's story.
- 9.30: A musical interlude.
- 9.40: British official wireless press.
- 9.45: New music.
- FROM THE 1929 RADIO DISPLAY AT THE STATE SHOPPING BLOCK.
- 10.2: News from the "Labor Daily."
- 10.5: News from the "Sydney Morning Herald."
- 10.10: Austradio musical reproduction.
- 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley
- 11.0: G.P.O. chimes. Close down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
- 12.2: A pianoforte recital.
- 12.30: LUNCH-HOUR MUSIC.
- 1.0: Afternoon news from the "Sun" and the "News."
- 1.5: Austradio musical reproduction.
- 2.0: J. KNIGHT BARNETT at the Wurlitzer.
- 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.50 to 5.45 p.m.

- 2.30: HALF AN HOUR WITH SILENT FRIENDS.
- 3.0: ROMANO'S DANCE ORCHESTRA, under the direction of Bennie Abrahams.
- 3.12: CLIFF HANNEY, violinist—(a) "Serenade Espagnole" (Charninade-Kreisler). (b) "Spanish Dance" (Grandos-Kreisler).
- 3.19: A NEW SONG.
- 3.22: ROMANO'S DANCE ORCHESTRA, under the direction of Bennie Abrahams.
- 3.32: MODERN MUSIC.
- 3.45: ROSE ANTILL DE WARREN will give a talk.
- 4.0: ROMANO'S DANCE ORCHESTRA, under the direction of Bennie Abrahams.
- 4.12: CLIFF HANNEY, violinist—(a) "Pale Moon" (Logan-Kreisler). (b) "Canzonette" (D'Ambrosio).
- 4.19: SONGS OF YESTERDAY.
- 4.26: ROMANO'S DANCE ORCHESTRA, under the direction of Bennie Abrahams.
- 4.36: A pianoforte recital.
- 4.45: The Trade Hour—Demonstration music
- 5.45: Weather information. Close down.
- THE DINNER HOUR—6.15 to 7.55 p.m.
- 6.15: DINNER QUARTET.
- 6.45: THE GIRLS' RADIO CLUB, conducted by Miss Gwen Varley.
- 7.5: The Country Man's Market Session—Wool, wheat, stock, farm produce, fruit, and vegetable markets.
- 7.20: DINNER MUSIC.
- 7.45: Austradio musical reproduction.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

- 2BL's programme to-night is on popular lines, with unusual Brass Quartette items,

droll Irish humor, snappy monologues, violin solos—here is a little of everything to titillate the public taste.

Thursday is 2FC's play night, and this evening "The Miser's Scene," from "La Cloches de Cornville," under the direction of Lynwood Roberts, a short sketch, "Father Buys a Crystal Set," to add spice of humor to the programme.

- 8.0: NEWTOWN BRASS QUARTET—"Spring" (Round).
- 8.8: DROLL IRISH HUMOR.
- 8.11: MARJORY ALLOMES, contralto—(a) "Si vous l'aviez compris" (Denza). (b) "The Last Hour" (Kramer).
- 8.18: DULCIE BLAIR, violinist—(a) "Meditation," from "Thais" (Massenet). (b) "Liebesleid" (Kreisler).
- 8.25: ANOTHER JEST FROM THE SON OF ERIN.
- 8.28: 2BL'S WEEKLY SOUND FILM FEATURE.
- 8.44: WARD LEOPOLD, the Strummin' Serenader—(a) "Pagan Love Song." (b) "Heart of Mine" (Silvers).
- 8.49: DOROTHY NALL, monologues—(a) "We Ain't Ari Proud of Dad" (Cory). (b) "One Little One More" (Bennett).
- 8.56: ROGER JONES and ANNE LUCIANO, vocal duets—(a) "Homeward to You" (Coates). (b) "Deep Night" (Henderson). (c) "I Love to Hear You Singing" (Wood). (d) "Pagan Love Song."
- 9.3: MORE IRISH QUIPS.
- 9.8: NEWTOWN BRASS QUARTET—"Summer" (Round).
- 9.15: MARJORY ALLOMES, contralto—(a) "The Fuchsia Tree" (Quilter). (b) "Dreaming of Home" (arr. Besley).
- 9.22: "PAT SAID TO MIKE."
- 9.28: Weather information for the man on the land.
- 9.30: A talk by FRED ARLINGTON-BURKE on "Australia and Recent American Financial Crash."
- 9.45: DULCIE BLAIR, violinist—(a) "Poem" (Fibich). (b) "Slavonic Fantasia" (Dvorak-Kreisler).
- 9.52: ANNE LUCIANO, soprano—"Full Moon" (Woolmer).
- ROGER JONES, baritone—"For Remembrance" (Woolmer).
- 10.2: DOROTHY NALL, monologues—(a) "Second Hand Rose" (Hanley). (b) "Aren't Men Funny Creatures" (Elliot).
- 10.12: NEWTOWN BRASS QUARTET—"Autumn" (Round).
- 10.20: IRISH NIGHTCAP.
- 10.25: Late news from the "Sun" and "News." Late weather forecast.
- 10.30: NATIONAL ANTHEM. CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 1.30 to 4.0, 5.15 to 8.0 As usual.
- 8.0: Miss Edna Lister, contralto.
- 8.7: Band Selections.
- 8.15: Mr. Leslie Herford, baritone.
- 8.22: Instrumental Quartette.
- 8.30: Mr. Jack Win and Miss Nora Windle in a Humorous Sketch.
- 8.40: Symphony Orchestra.
- 8.50: Miss Gwen Selva, soprano.
- 9.0: Weather report.
- 9.3: Address.
- 9.15: Band Selections.
- 9.25: Miss Edna Lister, contralto.
- 9.35: Mr. Jack Win and Miss Nora Windle in a Humorous Sketch.
- 9.45: Symphony Orchestra.
- 9.50: Mr. Leslie Herford, baritone.
- 10.0: Instrumental Music.
- 10.30: Close down.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

- EVENING SESSION.
- 6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Dinner Music. 7.55: Programme announcements and news from the "Sun." 8.0: Clock and Chimes. 8.1: Overture; "Pique Dame" Fantasia. 8.10: Instrumental Selections. 10.15: National Anthem.

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Electric Reinartz Three

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These were chosen because of their undisputed superiority, their excellence of design and finish, and moderate price.

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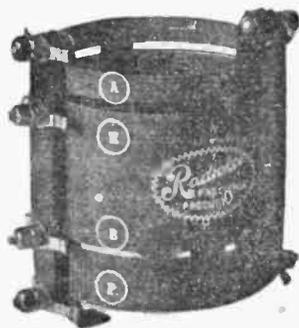
RADIOKES "B" Voltage Dividing Resistor, tapped 180, 135, 90, 45 volts. Price, 8/6 each.

RADIOKES R.F. Choke, 8/6 each.

RADIOKES Centre Tapped Resistors for AC Filament use, 10, 20, 50 ohms., 2/6 each.

RADIOKES Midget Condenser, 23-plate type. Price, 8/6 each.

RADIOKES "C" Bias Resistor, Vitreous type, 2000 ohms 5/6, 2500 6/- each.



"W.W." Screen-Grid Portable

featured in this issue, also employs Radiokes components for reliability, Efficiency, excellence of design, and beauty of finish.

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Interstate Programmes, Thursday, December 5

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: As usual.

MORNING SESSION.

10.30 to 12.30: As usual.

MIDDAY SESSION.

1.0 to 1.15: As usual.

EDUCATIONAL SESSION.

2.0: Great Australians—David Syme—Mr. J. Howlett Ross.

SPORTING INTERLUDE.

2.13: Description of Dowling Forest Hurdle Race, two miles, by Eric Welch; Ballarat Turf Club's Meeting at Dowling Forest. 2.20: Music Explained and Illustrated—Mr. C. E. Monteith, F.R.C.O. 2.25: Musical Interlude. 2.43: Description of Trial Handicap, five and a half furlongs, by Eric Welch; Ballarat Turf Club's Meeting at Dowling Forest. 2.50: Moments with Mark Twain—By the Storeteller.

THE RADIO MATINEE.

3.5: Royal Brass Band—March "Flying Squadron"; cornet solo. "My Ole Kentucky Home." 3.13: Description of Ballarat Turf Club's Races, at Dowling Forest. 3.20: Elsie Westcott, violin—"Mazur" (Mylharski). "Hindoo Chant" (Rimsky-Korsakov). 3.27: Victor Baxter, tenor—"At the Midhour of Night" (Coward). "White Northern Windows" (Anthony Dare). 3.34: Royal Brass Band—Selection from the works of Schubert. 3.43: Description of Welter Handicap, seven furlongs. Ballarat Turf Club's Meeting at Dowling Forest, by Eric Welch. 3.50: Comedy Sketch—"South-East and North-West," by Vera Berlinger. Gertrude Mullins, Mrs. Maurice Dudley, Hon. Arthur Cunningham, Arthur J. Fay. Scene: A Seat in a London Park. 4.5: Royal Brass Band—Reverie. "Just a Memory" (Loving Smile of Sister Kind" (Gounod), from "Faust." 4.13: Description of Eriellidoune Steeplechase, two miles. Ballarat Turf Club's Races at Dowling Forest, by Eric Welch. 4.20: Elsie Westcott, violin—"Brindisi Waltz" (Alard). "Lullaby" (Cyril Scott). 4.27: Victor Baxter, tenor—"Thou Art Risen, My Beloved" (Coleridge Taylor). "The Evening Star" (Edith Harrhy). 4.34: Royal Brass Band—Cornet solo. "Watchman, What of the Night?"; fox-trot. "Dream Kisses." 4.43: Description of Farewell Handicap, six furlongs. Ballarat Turf Club's Cup Meeting at Dowling Forest, by Eric Welch. 4.50: Acceptance and barrier positions for the V.R.C. Benevolent Fund Race Meeting at Moonee Valley on Saturday, December 7. 4.55: Close down.

THE CHILDREN'S CORNER.

8.45: "Bobby Bluebird" and "Clever Clarice." **EVENING SESSION.**
6.35: Melody Broadcast. 6.40: Let's Talk About Our Animals—More About the Sheep Dog—Mr. J. I. Moore. 6.55: Musical Interlude. 7.0: Time signal. 7.1: Countryman's Session. 7.25: For the man on the land. 7.40: News. 7.45: The Latest Books—Capt. C. H. Peters. 9.0: Time signal.

NIGHT SESSION.

8.0: National Broadcasting Orchestra—Overture. "The Magic Flute." 8.2: Alban Whitehead, baritone—"Qui Idem" (Mozart) (from "The Magic Flute"). 8.15: You will hear the Outstanding Personality or Question of the Week. 8.20: Paul Jeacle and his Band—Dance Music. 8.40: Mac Sinton, soubrette—"Old Pals are the Best Pals After All." 8.43: Paul Jeacle and his Band—Dance Music. 8.53: Leo Fisher, tenor—"Dona" (MacGill). 8.58: Paul Jeacle and his Band—Dance Music. 9.4: Alban Whitehead, baritone—A New Number. 9.50: Paul Jeacle and his Band—Dance Music. 10.0: Mac Sinton, soubrette—"Fagan Love Song." 10.7: Paul Jeacle and his Band—Dance Music. 10.9: Leo Fisher, tenor—"O Flower Divine" (Wood). 10.16: Paul Jeacle and his Band—Dance Music. 10.26: Mac Sinton, soubrette—Selected. 10.30: News Session. 10.40: Paul Jeacle and his Band—Dance Music. 10.50: Leo Fisher, tenor—"Pat Li' Feller" (Gordon). 10.53: Paul Jeacle and his Band—Song and Syn-copation. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 184 Metres).

MORNING SESSION.

8.15 to 11.0: As usual.

MIDDAY SESSION.

12.0 to 2.0: As usual.

AFTERNOON SESSION.

2.1: Orchestral—Frank Black and his Orchestra. 2.4: Quartette—Criterion Male Quartette (Negro Spirituals). 2.7: Violin—Frederick Fradkin. 2.10: Comedian—Freddie Rose. 2.13: Orchestral—Freddie Black. 2.15: The Dixie Stars Duet—Bernard and Robinson. 2.19: Cornet—Herbert L. Clarke. 2.22: Soubrette—Marion Harris. 2.25: Band—Walter E. Rogers' Brass Band. 2.28: Duet, Bernard and Robinson. 2.31: Or-

chestral—Hawaiian Novelty Orchestra. 2.34: Comedian—Vernon Dalhart. 2.37: Band—Walter E. Rogers' Brass Band. 2.40: Quartette—Criterion Male Quartette. 2.43: Orchestral—Cleveland Symphony Orchestra. 2.51: Baritone—Richard Bonelli. 2.54: Violin—Frederick Fradkin. 2.57: Band—Vassella's Italian Band. 3.0: Request Numbers. 3.0: From Kooyong Tennis Courts—Description of Inter-State Tennis Matches by Mr. A. W. Dunlop.

MAINLY FOR WOMEN.

3.20: Christmas Presents—Miss Hattie Knight. 3.35: Musical Interlude. 3.40: Food and Cookery—The Development of Electric Cooking—Miss B. Osborne. 3.55: Musical Interlude. 4.0: Your Health and Appearance—The Value of Sport in your Daily Life—Miss Evelyn N. Ellis. 4.15: From Kooyong Tennis Courts—Description of Inter-State Tennis Matches by Mr. A. W. Dunlop. 4.30: Musical Reproduction. 4.45: Evenson transmitted from St. Paul's Cathedral. 5.15: Weather. 5.30: From Kooyong Tennis Courts—Description of Inter-State Tennis Matches by Mr. A. W. Dunlop. 5.45: Close down.

EVENING SESSION.

6.15: Dinner Music. 7.30: What's on the Air Tonight? 7.32: Sporting Results. Acceptances and barrier positions for the V.R.C. Benevolent Fund Races at Moonee Valley on Saturday, 7th December. 7.35: Latest Musical Releases. 8.0: G.P.O. Chimes.

NIGHT SESSION.

8.0: Round and About by the Odd Men Out—Whose Subject To-night is "Do You Like Fish?" 8.15: A Studio Reproduction of Piano Concerto in A Minor, Op. 16 (Grieg)—Allegro Molto Moderato. Adagio. Allegro Moderato Molte e Marcato. By Arthur De Greef and the Royal Albert Hall Orchestra, conducted by Sir Landon Ronald. 8.45: A Studio Reproduction of "Valkyrie" (Wagner). Characters: Brunnhilde, Mmes. Frida Leider and Florence Austral; Sieglinde, Goeta Lyjungberg; Sigmund, Walter Widdop; Wotan, Frederick Schorr; Hunding, Howard Fry; The Eight Valkyries. 10.20: Weather. News. 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual. (See Friday). 7.45: Lecture, "Our Rural Resources," No. 2, by Mr. J. F. P. Reid, editor of the Queensland Agricultural Journal.

NIGHT SESSION.

8.0: Group I, grand opera. 4QG Symphony Orchestra (conducted by Eric John), overture, "Norma" (Bellini); Phyllis Verner, soprano, "Stride la Vampa," from "Il Trovatore" (Verdi); 4QG Symphony Orchestra, selection from "Carmen" (Bizet); Stanley Tamblin, bass-baritone, "She Alone Charmeth my Sadness," from "Irene" (Gounod); Group II, Eastern Suite—4QG Symphony Orchestra, "Egyptian Idyll" (Julia Nixon), "Turkish Patrol," march (Michodis); Hilda Cooper, contralto, "Till I Wake" (Woodford Finden); 4QG Symphony Orchestra, Oriental fantasia, "Yishma El" (Jaslowicz); George Williamson, tenor, "I'll Sing Thee Songs of Araby" (Clay); 4QG Symphony Orchestra, "Egyptian Ballet," second movement (Lugini), "In the Bazaar" (Leigh). 9.0: Weather. 9.1: Movements of travelling dental clinic. 9.2: Group III, Classical; Phyllis Verner, soprano, "Ill as the Night" (Bohm); 4QG Symphony Orchestra (conducted by Eric John), "L'Arlesienne Suite" (Bizet), "Prelude"; Stanley Tamblin, bass-baritone, "Song of Hydras, the Cretan" (Elliott); 4QG Symphony Orchestra, "L'Arlesienne Suite" (Bizet), "Adagietto" and "Farandole." Group IV, Miscellaneous; Hilda Cooper, contralto, "The Dream Minutes" (Beethoven); 4QG Symphony Orchestra, selection from "H.M.S. Pinafore" (Gilbert and Sullivan); George Williamson, tenor, "Father O'Flynn" (Stanford); 4QG Symphony Orchestra, overture from "Jolly Robbers" (Suppe). 10.0: News and weather; close.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 109 Metres).

Morning Session, Afternoon Session, and Evening Session to 7.20: As usual. 7.20: Dr. G. H. Wright will continue his series of literature talks. 7.35: A talk on tennis. 7.45: Mr. A. M. Whittenbury, Hints to Poultry Breeders.

NIGHT SESSION.

8.0: Programme review. 8.10: G. Carubia (mandolinist) and C. Vincenco (steel guitar). 8.17: Fred Williamson, tenor—"Sea Fever" (John Ireland). "Phyllida" (Coates). 8.24: Hilda Reimann, violinist—"Meditation from Thais" (Massenet), "Tambourin" (Toesee). 8.31: Rex and Don. 8.41: Jean Finlay, pianist, "Gavotte" (Brahms). 8.48: Linda Waid, soprano. 8.55: Hilda Reimann, violinist, "Hunoresque" (Dvorak). 9.1: Meteorological information, including Semaphore tides. 9.2: Overseas grain report.

9.3: Announcements.

9.5: G. Carubia (mandolinist) and C. Vincenco (steel guitar).

9.9: Fred Williamson, tenor—"My Lady Sleeps" (Cyril Scott), "Crying Waters."

9.17: Jean Finlay, pianist—"Towms Patch" (John Ireland), "Ragamuffin" (John Ireland).

9.25: Linda Waid (soprano) and Jean Sinclair (contralto), selected.

9.33: Hilda Reimann, violinist—"Vals" (Kuhlan).

9.47: Don and Rex.

9.57: G. Carubia (mandolinist) and C. Vincenco (steel guitar).

10.1: Jean Sinclair, contralto.

10.9: Jean Finlay, pianist.

10.15: News; sporting service, resume of Ballarat race results.

10.30: Dance music.

11.0: Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION, MORNING SESSION, MIDDAY SESSION, THE RADIO MATINEE, and EARLY EVENING SESSION, as usual.

EVENING SESSION.—8.0: Chimes. 8.2: Perth City Band. 8.14: James Carnochan, baritone. 8.17: Perth City Band. 8.29: James Carnochan, baritone. 8.32: Perth City Band. 8.41: James Carnochan, baritone. 8.47: Perth City Band. 9.1: Announcements. 9.6: A.B.C. Revue Company, produced and presented by Harry Graham. Artists: Harry Graham, entertainer; Dorothy Manning, soprano; David Lyle, tenor; Reuben Betts, crooning baritone; and Beryl Scott, pianist. 10.1: What's on the Air To-morrow? 10.5: Temple Court Dance Band, conducted by Merv. Lyons. 10.59: Weather. 11.0: Close down.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.30 a.m.: Morning melodies. 11.34: Midlands weather forecast. 11.35: Adeline Eager will speak on "Household Hints." 11.50: Musical selections. 11.55: Tasmanian stations 9 a.m. weather report. 12.1: Shipping information; mail notices; Housewives' Guide. 12.8: Selections. 12.30: News service; announcements. 12.40: Selections. 1.5: Railway auction sales. 1.10: Selections. 1.30: Close down. 3.0: G.P.O. clock chimes the hour. 3.1: Selections. 3.4: Weather information. 3.5: Musical selections. 4.15: A representative of the Child Welfare Association will speak on "Before School Age." 4.30: Close down. 6.15: Children's Corner, with "Uncle David" and "The Story Lady." 7.10: Recorded music. 7.30: News session. 7.40: Under the auspices of the "Come to Tasmania" Organisation J. B. Reid will speak on "Tasmania for a Holiday." 7.50: Sid Jones will speak on "Cricket Activities." 8.0: G.P.O. clock chimes the hour. 8.1: Selections. 8.15: 7ZL's Community Singing. 8.45: One-set play, "A Marriage has Been Arranged." 9.0: Community Singing (continued). 9.30: News session. 9.45: Selections. 10.1: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 367 Metres).

MIDDAY SESSION
12.30 to 4.30: As usual.

EVENING SESSION

5.30: Children's Hour.
6.30: The Meccano Club. Close.
6.45: Close.
7.0: Request numbers.
7.45: Garden talk by Mr. S. H. Hunt.
8.0: Soprano and contralto recital.
9.0: Comments on Foreign Affairs by M. M. Prentice.
9.10: Music.
9.30: Close.

MADAME HESELEVA, soprano, will be in the air from 3LO on December 3 in a programme of operatic numbers. Madame Heseleva has had much experience in both grand and light opera, and studied at the famous Petrograd Conservatorium, giving many recitals throughout Southern Russia.

AN original musical programme will be given from 3LO on December 6 by Gregory Ivanoff, when, under the title of "Echoes from the Theatre," many well-known classical and popular numbers will be introduced. Every type of musical performance will be visited; grand opera, musical comedy, and vaudeville will be taken in turn.

Under the direction of
ROSS A. HULL, M.I.R.E.

Radio Information Service

Some Thoughts About Buying a Loud-speaker

"B.C." ASHFIELD, wants to know how anyone can be expected to decide on a speaker when there are so many types to be seen and heard. He mentions two makes and asks which is the better.

Answer: We can understand that it must be extremely difficult for the intending listener to choose a speaker. The strange part of it is that in the show rooms where speakers are sold one can usually hear about the most wretched reproduction possible. If listeners were to select their speakers by comparing them as demonstrated in the city, it is reasonably certain that they would turn down most of the better types and buy some third rate affair in which the high musical frequencies had been eliminated to the point where the reproduction sounded soft and mellow. They would later find that the speaker lacked definition and that all voices and all music sounded as if it were being pushed through a wooden keg stuffed with cheese cloth.

Some of the most pitiful demonstrations of distortion in all its forms have been heard in a city showroom where one of the very finest speakers in the world is demonstrated. Such demonstrations are not only an insult to the manufacturers of the speakers and everyone connected with them but in these enlightened days are an insult to the prospective buyers' intelligence. Three things are necessary before a speaker can be listened to with the idea of judging its effectiveness. The first essential is a darned fine amplifier capable of producing an undistorted output of as much above one watt as possible. The second necessity is a splendid source of excitation for the amplifier. With broadcasting at its present stage, recorded programmes with few exceptions can be ruled out. Unquestionably the best excitation is from a high-grade pick-up operating from new and crisply recorded discs. The third desideratum is a fairly large and partially draped (or at least well furnished) room. Since a combination of these three is so difficult to find in the city and since the real worth of a speaker can hardly be judged by the average listener without them we can only suggest that a speaker be selected which has a reputation, which is well built, and which is handled by a stable and well known concern. If the listener is interested in musical reproduction, as distinct from noise-making with signals from other States, we firmly suggest that he buys a moving-coil speaker. At first this type of speaker may sound as if it had too many low tones, but it is his ears, not the speaker which is at fault. It is just that the tinny and thin reproduction with which he is so familiar has upset his ability to pass judgment on good reproduction. Of course, even the best speaker will sound wretched when it is taken home and operated from a receiver with a poor amplifier and with one of the silly little output valves which are so common to-day. Unfortunately it is not possible for us to make a comparison between speakers or any other apparatus. As a matter of fact, both the types mentioned are satisfactory as magnetic type speakers.

"Shortwave" (Buderim Mt.).—This is the third letter received from you asking the same questions. Each letter has been answered. I remembered your previous letters. You were advised that close coupling broadened the tuning, but since short-wave tuning was very sharp as a rule, the close coupling would be O.K. If parts of the band were found on which the receiver would not operate, it may be necessary to move the aerial coil further away from the secondary. The most efficient spot is to have the aerial coil as near the secondary as possible without the receiver going out of oscillation. It is usually necessary to have slightly more turns on the r.f. secondaries than on the detector secondaries. For instance, if the detector coil has four turns, the r.f. coil may need five turns. There is no need to place the aerial coil on a swivel. Many readers had excellent results with this receiver.

J.V.M. (South Brisbane).—"An article on the use of the Screen Grid Valve as a detector appeared in the Curves Ahead page by Mr. Hull a week or so ago. Details on building a frame aerial headed queries about four weeks back.

(2) "It is of no use you going 'crook' about my writing, as I get into hot water every day at school and am quite used to it."

Answer: They should try oil.

J.W.L. (Manly).—The A415 would be O.K., but the other valve would be useless in this circuit. You could use an A409. The wiring for the other coils would be exactly the same. Glad to hear you get such good results on the Countryman's One.

O.J.B. (Queensland).—"I get good volume from my set (described elsewhere) on a model H speaker, but I recently obtained another type speaker. I am not sure of the type, but will describe it. It has a cone floating on (apparently) the kid, with a heavy cylinder behind (only Mark Goodman's), recessed to take coil of cone. Cylinder is evidently electro-magnet, as it is connected to mains. Coil is matted. Loudspeaker is connected to set through a loud-speaker transformer No. 207, 120 ohms resistance. No other marking, but I have been told ratio is 2-1. I think that fully describes everything. Now the volume from this is rotten, only quarter of horn volume. Can you suggest what is wrong? Personally I think transformer ratio is too low. If this is so, please suggest a few types of different makes which I could try, as local dealers carry scarcely any stock, and if they don't happen to have make suggested I will have to buy from Brisbane. If you feel sure one will do, however, will get that on your 'say so.' I have tried reversing transformer, but that only quietens it more. The cone has a four-foot baffle."

Answer: Think the transformer 120 ohms output resistance would be quite O.K. Perhaps the primary winding is faulty. Test for continuity. The fault also points to no field excitation. If your field excitation cord uses an intermediate switch, see that the red button is pressed in, and also test switch to see that it is O.K. Also try an ordinary magnetic speaker in place of the other, leaving the transformer out of circuit. The speaker may be faulty.

(2) "In concluding with thanks, may I express my sympathy with your having to put up with such remarks as made by 'H. H. Remark' in this week's 'Wireless Weekly' as regards Mr. Hull's superhet. He says he 'Speaks for the readers. On whose authority? He condemns the super. I wish I had one.'"

Answer: We appreciate your remarks. Answering queries is the rottenest game in the world. One has to go into such careful detail, and remember that the querist probably doesn't know what negative grid bias is, and wishes to have an explanation on how a transmitter operates. (This is quite a general query.)

W.C. (Orange).—"I have been chasing around for a little information, and by results to inquiries can get no satisfactory replies. I have a 1927 Solodyne using Radiolux screened coils, and I desire to eliminate the batteries and install a Pilot Power Pack. As far as the audio circuit I am O.K. But as regards the radio frequency side and detector, I intend to use Mullard or Philips four-volt A.C. valves. Now, my only difficulty is: 'How am I going to neutralise the radio valves?' I may state that I am doing away with the original audio circuit, and using the Ferranti push-pull arrangement."

Answer: If that's all your trouble, forget it, since the receiver will be no more difficult to neutralise than with the D.C. valves.

"R.R.S." North Sydney, asks a series of questions about the "1930 Super."

Answer: Either type of resistors will be satisfactory. The inside primary lead should go to plate when outside secondary goes to grid. Yes, wind in same direction. .01 could be used for the by-pass condensers of plate returns. Would advise the larger capacity for bias and screen-grid returns. No; direction of winding on intermediate does not have any effect on first three coils. Pentode could be used, but with no advantage whatever and some sacrifice of musical reproduction. Suggest high-powered, three element power valve. Glad you had such success with the modified Standard A.C. Four.

"W.J." Brighton.—Yes, the circuit is O.K. Suggest E442, E415, and B403 for the three valves. The condenser could be connected between the cathode of the detector and the "B plus" terminal of the first audio transformer.

"H.J." Belmont, asks how he would make quite certain that the valves will not be burnt out when he connects up his receiver for the first time.

Answer: It is a good plan to connect up a flash-lamp bulb in series with the lead which connects the "A" battery to the negative "B" battery. If this

lamp blows out when the set is connected some fault must exist. If not, the set may be operated without danger. The lamp may be removed just as soon as the wiring is found to be in order.

"G. M.M." Ariah Park.—Suggest you build the amplifier described in a recent issue by Mr. G. A. Thomson. The UX-210 amplifiers would be replaced by a pair of UX-245's. These valves could be run with the d.c. mains as plate supply, care being taken to protect the supply wiring by including a lamp in series, and to protect the operator by making quite certain that the high potential supply wire is not connected with the "ground" side of the amplifier and its associated equipment.

"E.M." Lane Cove.—It is highly improbable that a crystal set at Gosford would give any satisfaction. Suggest you build a single valve set with a .06 filament valve supplied from dry cells. Such a set would be inexpensive to build and operate, and should give you head 'phone signals from, at least, the Sydney stations. With a good aerial reception from other States may be practical.

"I.R." Junee.—You certainly have had a most unfortunate experience with the a.c. type valves. Such a short life is not by any means the usual thing. Have you corresponded with the Sydney agents for the valves mentioned? The R.C.A. valves should be completely satisfactory, and, providing the voltage is not excessive, they should give service for much more than a thousand hours. The performance of the receiver should not be poorer with them. Screen-grid valves could be fitted only by radically changing the r.f. portion of the receiver. We would not recommend the change.

L. M. CHILD, 54 Gardner's Road, Daceyville, would like to get in touch with a young chap interested in wireless. He asks: "My four-valve circuit is not sensitive, and am changing to the 'Marco 4.' Would resistance coupling do in place of transformers?"

Answer: It is not the circuit of a receiver that is sensitive or insensitive: it is the receiver itself. Providing that there is no actual fault in the circuit the receiver could be made sensitive by using the right components and the correct constant. Suggest you make certain that your present circuit is in order, and that you then endeavor to find out what constants affect the performance. This procedure would be far more interesting and much more instructive than just changing the circuit in the hope that that would give you the sensitivity you require. Resistance coupling could be used but the amplification with the same number of valves would be reduced. An extra valve would be required to give the same amplification as you would get with transformers. Use the A609 as the r.f. amplifier, the 615 as the detector, another 615 for the first audio, and the 605 as the output valve. A C603 or a still higher-powered output valve would be better than the 605, however.

H. Rogers, Bondi Beach.—On the wave trap the first turn should go to the fixed plates of the condenser, and the last turn to the rotating plates. In other respects the description is in order. The idea is to tune the station you don't want on the receiver, and then to tune it out by manipulation of the condenser on the wave-trap. The trap is then left at that adjustment while the set is tuned for the desired signals.

QUERY COUPON

If you are in difficulties about reception or set-construction let us know and we will endeavor to see you right. Make your questions brief to the point, and, where possible, show lay-out 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 in the order in which they are received.

The Radio Information Service, Box 350117, WIRELESS WEEKLY, Sydney, N.S.W. Please answer the accompanying queries in your earliest convenience. I enclose this coupon in order to indicate that I am a bona-fide reader.

Between You and Me and the Microphone

Mr. Johns' Indiscretion

HOWEVER, Mr. Johns didn't know any better. Any man who could write an essay (with illustrations) on "Jiu-Jitsu for Women" should not be expected to know any better. But that he should be allowed to see his essay in "Wireless Weekly" is almost altogether understandable: it shows What Editors Will Do, and proves that if our editor would take us more into his confidence about this paper everything would be much better off, as we have often told him. Because he is another of the unworlly brigade—he doesn't know the first thing about women.

The first thing about women (and you want to listen to this—this is not theory, but the result of a long life's experience), the first thing about woman is that she is not a physical match for man. The strongest man in the world could knock the stuffing out of the strongest woman in the world in the first round of a fair contest; and the weakest man in the world could send the weakest woman in the world out for the count if you made it worth his while. We ourselves feel equal to stouthing any one of the A.B.C. typistes, and, provided we were in training a few weeks beforehand, we would think nothing of a bout with the programme directress, Miss Gibson.

The second thing about women is that they don't want to be physically superior to men, any more than a bullocky wants to be physically superior to one of his bullocks. The weakest woman in the world can twist the strongest man in the world around her little finger. Any of the A.B.C. typistes could twist us round her little finger if she wanted to, and Miss Gibson could do what she—but it's no use crying over spilt milk.

But in the innocence of his heart Mr. Johns wasn't satisfied with this—he wanted to make women physically equal to man; so he wrote this article on "Jiu-Jitsu for Women," which boils down as follows:—If a man should lay a Wicked Hand on a Defenceless Woman's shoulder (or chest) she may execute a Swift Movement; then she has him in her power, and may either (1) Twist off his Hand, or (2) Bring him Down with a Thump on Hard Pavement and split his Head Open, or (3) Cause Him Great Pain.

The consequences of this article by Mr. Johns were immediate, far-reaching, and disastrous.

Poor old John had to do this week's drawings with his left hand. Poor Mr. Hull came in the other day with his arm in a sling. Twenty-five (or twenty-six—we can't remember the exact number—we got a fearful headache coming home from a dance the other night), twenty-five, say, of our dearest friends are going about with their arms in slings, their hands torn off, or their heads bandaged.

During the past few days we have received four thousand letters of protest from men all over the country, some of them returned soldiers. Also, we have received three thousand odd letters from women all over the country, of which the following example is representative:—

"Dear James,—Can't you do something about this Johns man's article? We used to get on quite well without Jiu-Jitsu, and we don't want to be unnecessarily cruel; but all good girls are supposed to

support a wife and family. The other half—"

"What about the other half?"

"The other half, we are sure, would be inclined to resent a suggested bigamy, as being somewhat immoral."

"That rather complicates the matter," said Tl. "You certainly have some bright acquaintances, James; but I was young myself once. Of course, you have considered a counter for this Jiu-Jitsu hold."

"Why," we exclaimed, "we didn't think of that!"

Tiresias looked at us reproachfully, "That's what I always said about you, Jimmy; you're not enterprising enough. You always wait for things to come to you. What you want to do is, go out and get 'em. How many holds did Johns show 'em?"

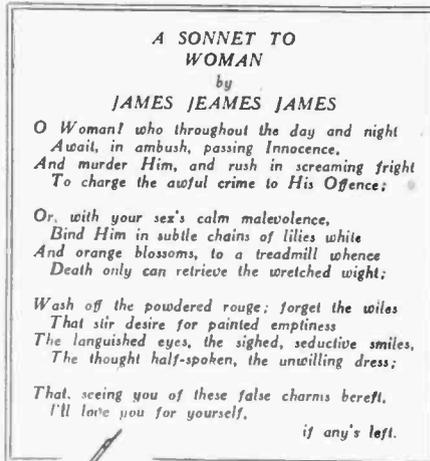
"Only one."

Tiresias peered up and down his bookshelf, and pulled out a book. "Take this," he said. "This is all about Jiu-Jitsu. Every hold in Jiu-Jitsu has a counter, and the counter to Johns' hold will be there; besides, you can learn up all the three hundred other holds. Then you will be able to do any of these things to any woman who tries to be physically superior:

"Gouge out her eyes,
 "Break an arm or leg,
 "Break both arms and legs,
 "Break her fingers,
 "Break her neck,
 "Break her back, and
 "Throw her ten feet over your shoulder, when she should be quite submissive, and willing to do whatever you wanted her to do in the first place."

We took the book, thanked old Tl for the trouble he had taken, and reported progress to our editor. As he was going out to a dance that night we gave him the book and told him to give old Tl's advice a fly, because if he could do it any silly mutt could do it. When he came in the morning we asked how he had got on; and he said that when he had gone through the whole exercise and thrown her over his head she didn't seem to be the same girl, and certainly didn't look worth all the trouble he had taken. He seemed rather disgusted with the whole affair.

But the main thing is, the test was successful. If a decent girl won't be seen with our editor that doesn't deny the success of old Tiresias' method, which we therefore heartily commend to young men wasting away in love, young and old wasters in love, and generally to all who feel the pangs of this tender passion. The book is probably on sale at all good bookshops.



read "Wireless Weekly," and if we don't do what Mr. Johns advises when the occasion presents itself, our virtue is likely to come under suspicion. Besides, it gives us very little excuse if you see what I mean. I am writing this to you personally, James, dear, because I am sure you understand all about these kind of things.

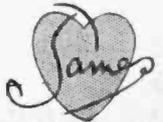
"Yours faithfully,
 "JEAN."

When the editor saw all these letters he quivered, and said, "You'd better do something about this, James; and fix it up pretty quick and lively before our directors get to hear of it; so we took our first opportunity and went to see Tiresias yesterday. A dignified old chap is Tl., and what he doesn't know about anything is not to be found in the "Sydney Morning Herald" on the one hand, or the "Pornophun Review" on the other.

We told him the whole sad story, and said, "You see, Tl, we represent over four thousand men, who have been inconvenienced by this article, and goodness knows how many more who haven't written to us, and we want to make things right again, if possible."

Old Tl. thought very hard for an hour or so, then he said: "The best way and the easiest way out of the difficulty would be for all these men who have been inconvenienced to get married. That would solve the problem."

"Not on your life, Tl. Half these men are too young to marry. They could"



GEAR WITH A GUARANTEE

A.C. Gear, for electrifying sets, is comparatively new. You can't afford to buy untried parts from unknown sources. Consider these points: (1) We have sold radio gear for a greater length of time than any other Sydney firm; (2) our reputation is unchallenged; (3) we were first in the field with gear for the home electrification of sets; (4) we give an unqualified guarantee with all A.C. parts; (5) we promise satisfactory results with any set when any part is bought from us; (6) we know the game, and our advice and help are always available; (7) and—our range of A.C. gear is unequalled.

Eliminator Transformers specified in last week's "Weekly" for the A.C. Modern 2, 35/-.

TRANSFORMERS—GENERAL SPECIFICATIONS.

280 Full Wave type, 600 volts, centre-tapped, with filament winding	30/-
280 Full Wave type, 600 volts, centre-tapped, with 4-volt A.C. filament winding	35/-
DU10, or Philips 373 type, half wave, 300 volts, with 4-volt filament winding	25/-
201A type (to replace Bell ringers), 300-volt, 5-volt filament winding	25/-
ABC Transformers, 300-volt, 4 or 5 volt filament winding, with 4-volt centre tapped A.C. winding	32/6

CONDENSERS.

4 mfd. Hydra	6/9
2 mfd. "	4/-
.5 mfd. "	2/6

RESISTORS.

100,000 Variable Resistors for detector or radio tap	4/6
Voltage Dividers, for eliminator output, 18,000 ohms, suitably tapped, wire wound	5/6
Pilot 1000 ohm. Wire Wound Resistors, for grid bias	3/6

CHOKES.

30 Henry Power Chokes, 50 Henry Chokes	10/6
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RECTIFYING VALVES.

UX 280 Full Wave Rectifying Valves, over 200 volts output, 25/-	
Mullard DU10 Valves, Philips 373	17/6

LOOK FOR RED "GUARANTEE" LABEL!

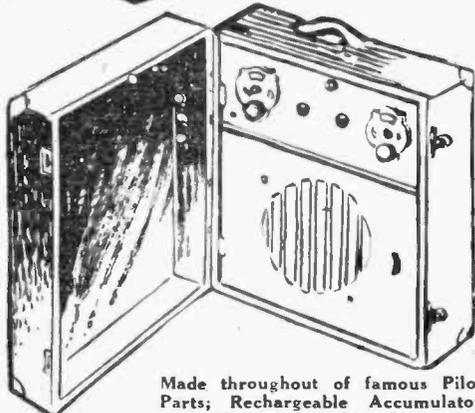
Wallace Eliminator Kit, for 3-valve sets	59/6
Wallace Eliminator Kit, for 4 and 5 valve sets	67/6
Wallace ABC Pack	95/-
Wallace 280 Eliminator Kit (as required for A.C. Modern 2). Suitable for any set	£6/17/6

Full diagrams and instructions with "Electrified Radio" (How to make your set all-electric). Ten pages of descriptive matter on AC work. 1/-, Posted 1/3.

SAME DAY SERVICE "THE WIRELESS SHOP" **Money Back**
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Made throughout of famous Pilot Parts; Rechargeable Accumulator "A" Battery; Adjustable Type Speaker, great volume and clarity; Automatic Switch, which cuts the set off when door is closed; large rubber studs for protection against scratches and jar; solid steel handle, leather-covered; small and compact in size.

PRICE COMPLETE, £22/10/-
 Easy Terms Can Be Arranged.

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Radiotrons have an enviable reputation in Australia for long life and consistent performance.

This reputation has been built up over a long period of years, and the addition of three new types complete a range of Broadcast Receiving Valves which will meet all requirements.

RCA. 221

For battery operated sets
General Purpose.
Fil. Volts 5.5 to 6
FIL. CURRENT .06 AMPS.
Plate Volts 45 to 150

UY. 224

A.C. SCREEN GRID

General Purpose.
Heater Volts 2.5
Heater Cur., 1.75 amps
Plate Volts 180

UX. 245

FOR A.C. OR D.C. SETS

Power Amplifier.
Fil. Volts 2.5
Fil. Current 1.5 amps
Plate Volts 180-250

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47 York Street, Sydney

Queensland Distributors:

J. B. CHANDLER & CO.,
45 Adelaide Street, Brisbane

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Radiotron

IF A BOSOM PAL OFFERED TO IMPROVE YOUR RESULTS AND REDUCE YOUR OPERATING COST MORE THAN 50 PER CENT.—YOU WOULD SIT UP AND TAKE NOTICE.

We positively guarantee to do this for you without any alteration to your set.

Simply instal one of our new guaranteed Economic "B" Battery Eliminators. Complete in handsome duco metal case, £3/13/-; or in home assembling kit form, £3/3/-

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NO Complicated Earthing System.
 NO Old-fashioned Bell Transformer.
 NO Hum.
 NO Alterations to Set.

YES It has a specially designed Power Transformer.
 YES It has a special Philips Rectifying Valve at 15/-.
 YES It will deliver up to 180 volts.
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Please mail more details re your advt. 29/11/29.
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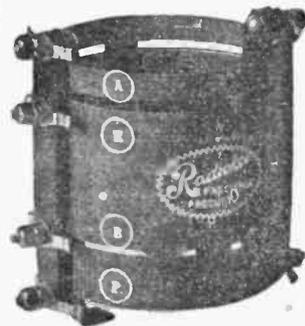
Electric Reinartz Three

Reviewed in This Issue Uses—

RADIOKES COMPONENTS

These were chosen because of their undisputed superiority, their excellence of design and finish, and moderate price.

- RADIOKES Electric Reinartz Coil, illustrated at right. Price, 11/9 each.
- RADIOKES "B" Voltage Dividing Resistor, tapped 180, 135, 90, 45 volts. Price, 8/6 each.
- RADIOKES R.F. Choke, 8/6 each.
- RADIOKES Centre Tapped Resistors for AC Filament use, 10, 20, 50 ohms., 2/6 each.
- RADIOKES Midget Condenser, 23-plate type. Price, 8/6 each.
- RADIOKES "C" Bias Resistor, Vitreous type, 2000 ohms 5/6, 2500 6/- each.



"W.W." Screen-Grid Portable

featured in this issue, also employs Radiokes components for reliability, Efficiency, excellence of design, and beauty of finish.

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Under the direction of
ROSS A. HULL, M.I.R.E.

Radio Information Service

Some Thoughts About Buying a Loud-speaker

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Answer: They should try oil.

J.W.L. (Manly).—The A415 would be O.K., but the other valve would be useless in this circuit. You could use an A409. The wiring for the other coils would be exactly the same. Glad to hear you get such good results on the Countryman's One.

O.J.B. (Queensland).—"I get good volume from my set (described elsewhere) on a model H speaker, but I recently obtained another type speaker. I am not sure of the type, but will describe it. It has a cone floating on (apparently) the kid, with a heavy cylinder behind (only Mark Goodman's), recessed to take coil of cone. Cylinder is evidently electro-magnet, as it is connected to mains. Coil is matted low resistance. Speaker is connected to set through a loud-speaker transformer No. 207, 120 ohms resistance. No other marking, but I have been told ratio is 2-1. I think that fully describes everything. Now the volume from this is rotten, only quarter of horn volume. Can you suggest what is wrong? Personally I think transformer ratio is too low. If this is so, please suggest a few types of different makes which I could try, as local dealers carry scarcely any stock, and if they don't happen to have make suggested I will have to buy from Brisbane. If you feel sure one will do, however, will get that on your 'say so.' I have tried reversing transformer, but that only quietens it more. The cone has a four-foot baffle."

Answer: Think the transformer 120 ohms output resistance would be quite O.K. Perhaps the primary winding is faulty. Test for continuity. The fault also points to no field excitation. If your field excitation cord uses an intermediate switch, see that the red button is pressed in, and also test switch to see that it is O.K. Also try an ordinary magnetic speaker in place of the other, leaving the transformer out of circuit. The speaker may be faulty.

(2) "In concluding with thanks, may I express my sympathy with your having to put up with such remarks as made by 'H. H. Remark' in this week's 'Wireless Weekly' as regards Mr. Hull's superhet. He says he 'Speaks for the readers. On whose authority? He condemns the super. I wish I had one.'"

Answer: We appreciate your remarks. Answering queries is the rottenest game in the world. One has to go into such careful detail, and remember that the querist probably doesn't know what negative grid bias is, and wishes to have an explanation on how a transmitter operates. (This is quite a general query.)

W.C. (Orange).—"I have been chasing around for a little information, and by results to inquiries can get no satisfactory replies. I have a 1927 Solodyne using Radiolux screened coils, and I desire to eliminate the batteries and install a Pilot Power Pack. As far as the audio circuit I am O.K. But as regards the radio frequency side and detector, I intend to use Mullard or Philips four-volt A.C. valves. Now, my only difficulty is: 'How am I going to neutralise the radio valves?' I may state that I am doing away with the original audio circuit, and using the Ferranti push-pull arrangement."

Answer: If that's all your trouble, forget it, since the receiver will be no more difficult to neutralise than with the D.C. valves.

"R.R.S." North Sydney, asks a series of questions about the "1930 Super."

Answer: Either type of resistors will be satisfactory. The inside primary lead should go to plate when outside secondary goes to grid. Yes, wind in same direction. .01 could be used for the by-pass condensers of plate returns. Would advise the larger capacity for bias and screen-grid returns. No; direction of winding on intermediate does not have any effect on first three coils. Pentode could be used, but with no advantage whatever and some sacrifice of musical reproduction. Suggest high-powered, three element power valve. Glad you had such success with the modified Standard A.C. Four.

"W.J." Brighton.—Yes, the circuit is O.K. Suggest E442, E415, and B403 for the three valves. The condenser could be connected between the cathode of the detector and the "B plus" terminal of the first audio transformer.

"H.J." Belmont, asks how he would make quite certain that the valves will not be burnt out when he connects up his receiver for the first time.

Answer: It is a good plan to connect up a flash-lamp bulb in series with the lead which connects the "A" battery to the negative "B" battery. If this

lamp blows out when the set is connected some fault must exist. If not, the set may be operated without danger. The lamp may be removed just as soon as the wiring is found to be in order.

"G. M.M." Ariah Park.—Suggest you build the amplifier described in a recent issue by Mr. G. A. Thomson. The UX-210 amplifiers would be replaced by a pair of UX-245's. These valves could be run with the d.c. mains as plate supply, care being taken to protect the supply wiring by including a lamp in series, and to protect the operator by making quite certain that the high potential supply wire is not connected with the "ground" side of the amplifier and its associated equipment.

"E.M." Lane Cove.—It is highly improbable that a crystal set at Gosford would give any satisfaction. Suggest you build a single valve set with a .06 filament valve supplied from dry cells. Such a set would be inexpensive to build and operate, and should give you head 'phone signals from, at least, the Sydney stations. With a good aerial reception from other States may be practical.

"I.R." Junee.—You certainly have had a most unfortunate experience with the a.c. type valves. Such a short life is not by any means the usual thing. Have you corresponded with the Sydney agents for the valves mentioned? The R.C.A. valves should be completely satisfactory, and providing the voltage is not excessive, they should give service for much more than a thousand hours. The performance of the receiver should not be poorer with them. Screen-grid valves could be fitted only by radically changing the r.f. portion of the receiver. We would not recommend the change.

L. M. CHILD, 54 Gardner's Road, Daceyville, would like to get in touch with a young chap interested in wireless. He asks: "My four-valve circuit is not sensitive, and am changing to the 'Marco 4.' Would resistance coupling do in place of transformers?"

Answer: It is not the circuit of a receiver that is sensitive or insensitive: it is the receiver itself. Providing that there is no actual fault in the circuit the receiver could be made sensitive by using the right components and the correct constant. Suggest you make certain that your present circuit is in order, and that you then endeavor to find out what constants affect the performance. This procedure would be far more interesting and much more instructive than just changing the circuit in the hope that that would give you the sensitivity you require. Resistance coupling could be used but the amplification with the same number of valves would be reduced. An extra valve would be required to give the same amplification as you would get with transformers. Use the A609 as the r.f. amplifier, the 615 as the detector, another 615 for the first audio, and the 605 as the output valve. A C603 or a still higher-powered output valve would be better than the 605, however.

H. Rogers, Bondi Beach.—On the wave trap the first turn should go to the fixed plates of the condenser, and the last turn to the rotating plates. In other respects the description is in order. The idea is to tune the station you don't want on the receiver, and then to tune it out by manipulation of the condenser on the wave-trap. The trap is then left at that adjustment while the set is tuned for the desired signals.

QUERY COUPON

If you are in difficulties about reception or set-construction let us know and we will endeavor to see you right. Make your questions brief to the point, and, where possible, show lay-out 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 in the order in which they are received.

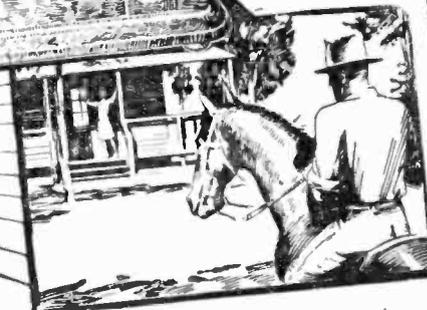
The Radio Information Service, Box 350117, WIRELESS WEEKLY, Sydney, N.S.W. Please answer the accompanying queries in your earliest convenience. I enclose this coupon in order to indicate that I am a bona-fide reader.

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that denies you daylight reception of races ... news ... community singing ... and all the wealth of entertainment that's on the air. Hundreds are changing over to the luxury of the new super powered "full-time" radio that definitely **GUARANTEES DAYLIGHT** reception, at full speaker strength—to every country resident, no matter how remote.



D.S.G/2/20



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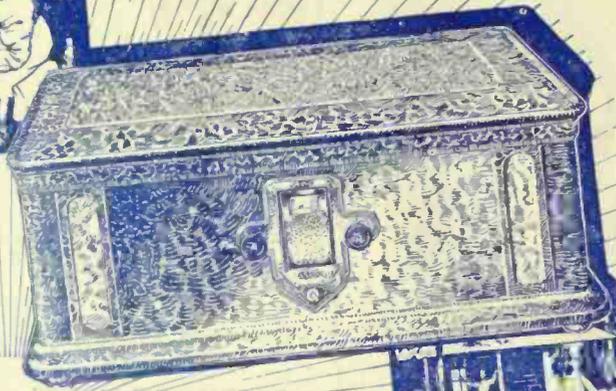
Dear Sirs,—Please forward, without obligation, your Illustrated Folder on the New Astor Double-Screened Grid Receiver.

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that denies you daylight reception of races ... news ... community singing ... and all the wealth of entertainment that's on the air. Hundreds are changing over to the luxury of the new super powered "full-time" radio that definitely **GUARANTEES DAYLIGHT** reception, at full speaker strength—to every country resident, no matter how remote.



D.S.G/2/29



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A.C. SCREEN GRID

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Radiotron

Between You and Me and the Microphone

Mr. Johns' Indiscretion

HOWEVER, Mr. Johns didn't know any better. Any man who could write an essay (with illustrations) on "Jiu-Jitsu for Women" should not be expected to know any better. But that he should be allowed to see his essay in "Wireless Weekly" is almost altogether understandable: it shows What Editors Will Do, and proves that if our editor would take us more into his confidence about this paper everything would be much better off, as we have often told him. Because he is another of the unworlly brigade—he doesn't know the first thing about women.

The first thing about women (and you want to listen to this—this is not theory, but the result of a long life's experience), the first thing about woman is that she is not a physical match for man. The strongest man in the world could knock the stuffing out of the strongest woman in the world in the first round of a fair contest; and the weakest man in the world could send the weakest woman in the world out for the count if you made it worth his while. We ourselves feel equal to stouthing any one of the A.B.C. typistes, and, provided we were in training a few weeks beforehand, we would think nothing of a bout with the programme directress, Miss Gibson.

The second thing about women is that they don't want to be physically superior to men, any more than a bullocky wants to be physically superior to one of his bullocks. The weakest woman in the world can twist the strongest man in the world around her little finger. Any of the A.B.C. typistes could twist us round her little finger if she wanted to, and Miss Gibson could do what she—but it's no use crying over spilt milk.

But in the innocence of his heart Mr. Johns wasn't satisfied with this—he wanted to make women physically equal to man; so he wrote this article on "Jiu-Jitsu for Women," which boils down as follows:—If a man should lay a Wicked Hand on a Defenceless Woman's shoulder (or chest) she may execute a Swift Movement; then she has him in her power, and may either (1) Twist off his Hand, or (2) Bring him Down with a Thump on Hard Pavement and split his Head Open, or (3) Cause Him Great Pain.

The consequences of this article by Mr. Johns were immediate, far-reaching, and disastrous.

Poor old John had to do this week's drawings with his left hand. Poor Mr. Hull came in the other day with his arm in a sling. Twenty-five (or twenty-six—we can't remember the exact number—we got a fearful headache coming home from a dance the other night), twenty-five, say, of our dearest friends are going about with their arms in slings, their hands torn off, or their heads bandaged.

During the past few days we have received four thousand letters of protest from men all over the country, some of them returned soldiers. Also, we have received three thousand odd letters from women all over the country, of which the following example is representative:—

"Dear James,—Can't you do something about this Johns man's article? We used to get on quite well without Jiu-Jitsu, and we don't want to be unnecessarily cruel; but all good girls are supposed to

support a wife and family. The other half—"

"What about the other half?"

"The other half, we are sure, would be inclined to resent a suggested bigamy, as being somewhat immoral."

"That rather complicates the matter," said Tl. "You certainly have some bright acquaintances, James; but I was young myself once. Of course, you have considered a counter for this Jiu-Jitsu hold."

"Why," we exclaimed, "we didn't think of that!"

Tiresias looked at us reproachfully, "That's what I always said about you, Jimmy; you're not enterprising enough. You always wait for things to come to you. What you want to do is, go out and get 'em. How many holds did Johns show 'em?"

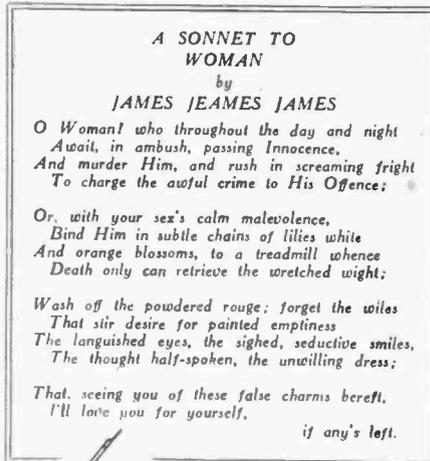
"Only one."

Tiresias peered up and down his bookshelf, and pulled out a book. "Take this," he said. "This is all about Jiu-Jitsu. Every hold in Jiu-Jitsu has a counter, and the counter to Johns' hold will be there; besides, you can learn up all the three hundred other holds. Then you will be able to do any of these things to any woman who tries to be physically superior:

"Gouge out her eyes,
 "Break an arm or leg,
 "Break both arms and legs,
 "Break her fingers,
 "Break her neck,
 "Break her back, and
 "Throw her ten feet over your shoulder, when she should be quite submissive, and willing to do whatever you wanted her to do in the first place."

We took the book, thanked old Tl for the trouble he had taken, and reported progress to our editor. As he was going out to a dance that night we gave him the book and told him to give old Tl's advice a fly, because if he could do it any silly mutt could do it. When he came in the morning we asked how he had got on; and he said that when he had gone through the whole exercise and thrown her over his head she didn't seem to be the same girl, and certainly didn't look worth all the trouble he had taken. He seemed rather disgusted with the whole affair.

But the main thing is, the test was successful. If a decent girl won't be seen with our editor that doesn't deny the success of old Tiresias' method, which we therefore heartily commend to young men wasting away in love, young and old wasters in love, and generally to all who feel the pangs of this tender passion. The book is probably on sale at all good bookshops.



read "Wireless Weekly," and if we don't do what Mr. Johns advises when the occasion presents itself, our virtue is likely to come under suspicion. Besides, it gives us very little excuse if you see what I mean. I am writing this to you personally, James, dear, because I am sure you understand all about these kind of things.

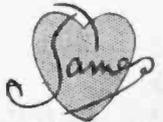
"Yours faithfully,
 "JEAN."

When the editor saw all these letters he quivered, and said, "You'd better do something about this, James; and fix it up pretty quick and lively before our directors get to hear of it; so we took our first opportunity and went to see Tiresias yesterday. A dignified old chap is Tl., and what he doesn't know about anything is not to be found in the "Sydney Morning Herald" on the one hand, or the "Pornophun Review" on the other.

We told him the whole sad story, and said, "You see, Tl, we represent over four thousand men, who have been inconvenienced by this article, and goodness knows how many more who haven't written to us, and we want to make things right again, if possible."

Old Tl. thought very hard for an hour or so, then he said: "The best way and the easiest way out of the difficulty would be for all these men who have been inconvenienced to get married. That would solve the problem."

"Not on your life, Tl. Half these men are too young to marry. They could"



Headin' South with Radio Aboard



Holidaying in the open with a Portable.

By P. A. MORSE

B-R-R-R-R! B-r-r-r-r! I rubbed my eyes and sat up. It was 4 o'clock—not p.m., but a.m. Big Ben had rudely dragged me back from a sylvan shade, where the water bubbled over cobbles, majestic mountains raised their lofty peaks, and tall trees waved in the breeze.

Possibly these dream visions were stimulated by my thoughts as I dropped asleep a few hours previously, after packing the car with the tent and camping gear ready for an early morning start to the Wollondilly River—120 miles distant. Within five minutes the whole family were astir, having been deprived of their blankets (quite the speediest way to rouse slumberers). By 4.30, after a hurried cup of coffee, we were dodging milk carts headin' south for one of the loveliest spots in this fair State of ours—three clear days in the great out-doors.

An early start has its advantages, because if you happen to have womenfolk aboard you're lucky if you manage to pass a town without something being bought, but at this hour the only places that showed life were butchers' shops. We managed a clear run to Picton, where we had breakfast—grilled fillet done to a turn over an open fire on the banks of the Bargo River, with the birds singing a better tune than any orchestra every thought of or attempted. From Picton we made straight for Mittagong; here we gave the womenfolk the "Freedom of the City," and a final stock up of provisions was made. Our destination was just on 40 miles ahead, but this last lap was the most beautiful drive of the whole trip. After travelling through fairly open country for about 10 miles we were well into the bush and mountains.

The road, a good one, runs a winding course round and round, down the mountain side, with deep gorges on one side and a sheer cliff on the other.

For 16 miles we ran with the "extra air" wide open—a fine place for cars to put up a juice record. At one spot about 14 miles from the valley we pulled up to drink in the



The author poses in holiday mood after his morning plunge.

beauties of the scenery. On one side you get a vista for miles and miles through a beautiful blue-grey haze, faintly through which the river runs in and out like a ribbon of silver. On the other side lies the famous Burratorang Valley. At Goodmansford, our destination, nine miles from Wombeyan Caves, the river is very wide, with deep pools and here and there rapids where the water rushes over smooth cobble stones, making music for any tired business man's ears.

By eleven we had tents up, beds made, collapsible tables out, and everything ready for a couple of days' real enjoyment. And they proved "days of real sport."

The country folk, providing you consider their property rights, we found kindness itself. But you must not take things for granted, especially if you are not on a public camping ground. You can, however, get



Tuning in the stations on the river bank at evening.

anything for the asking, providing you ask the right way. We experienced this.

One car load of the party left the city later and did not arrive until after nightfall. As a matter of fact, they did not arrive at all. Not at the spot arranged. In the dark they mistook the road, and after passing through several gates eventually camped on the river bank, about three miles higher up. In the morning an irate farmer bore down upon them with clenched fists and fire in his eyes. "What're youse blokes doing here. Don't you know this is private property, and my property?"

Fortunately one of the party was an insuranceman, well versed in the gentle art of persuasiveness and modern diplomacy. He took the floor. Within five minutes the three were comfortably seated in the tent with the irate farmer—irate no longer—in their midst. It's really wonderful how the soft answer and a bottle of Scotch "turneth away wrath." Of course, the farmer was explaining: "I didn't know you were this kind of chaps; stay, why bless me, stay as long as you like; enjoy yourselves." He left them half an hour later, and his last words were: "Now, I'll be back soon; I'm going to get the missus to cook you a chicken." And he did. He was hospitality itself, so much so that our friends stayed right there and did not join the main party except for a couple of visits.

While the days were glorious the nights were even better, for we had taken precaution to bring with us a "Cossor Melody Maker," and by using one cell of the car battery for the A battery and an ordinary B dry battery we had a complete radio set, keeping us in touch with "the voice of the



Two views of the Wollondilly, showing the camp.



One of the party had a trailer.



Dancing to music from Sydney.

city" though 120 miles distant by road. The aerial we fixed by tying a spanner to a piece of rope and, after nearly braining my camping friend, managed to secure it to a limb of a friendly tree, and thence to the set, which stood on a table, the loud-speaker operating from the top of the hood.

On Saturday afternoon we heard a full description of the A.J.C. meeting at Randwick, broadcast by 2FC; one of the party had a win, and wanted to shout drinks all round. But as there was only the clear sparkling water of the river his offer was graciously refused. You can even have too much water at times.

Between the race description we enjoyed the Oriental dance music and the general sporting news until "close-down" at 4.45. On Saturday night we retired early, the early morning start beginning to tell on us towards eight. Big Ben at the Sydney G.P.O. broadcast from 2BL woke us up to this fact, for we heard the chimes over the night air as though we were standing in Martin Place.

Sunday was a beautiful clear day, with the sun just warm enough to make the water inviting. During the afternoon we settled down under shady trees and tuned in. We heard all we wanted to hear from the city, minus the din and dust. We followed the announcer through Taronga Park. Some said they heard the lions roar—but probably it was static. Right through the afternoon, as the log shows, our wireless fan kept turning the dial—at times his audience dwindled down to himself solely—but he stuck to it—it's terrible when you get the wireless bug.

After tea we built a huge fire and sat round it for "a night on the air." We had a very varied programme, tuning in at will to 2FC, 2BL, 3LO, 4QG, and everybody was happy until the announcer threw a spanner into one of the cogs of our happy circle. "Miss Le Brun Brown, soprano, will sing 'A Woman's Last Word.'" Now, the menfolk of the party were quite satisfied to let "The women have the last word," but we didn't want it composed into a song and sung to us over the air—not on a holiday.

The next jolt of the evening was at 9 p.m., from 2FC—the weatherman forecasting cyclonic conditions. But we soon got composed—he had been wrong before, and we fondly hoped would be again. At 9.42 we

LOG

SUNDAY, OCTOBER 6TH, 1929.

- 3.45 p.m.: 2FC. From Taronga Park Zoo.
- 4 p.m.: 2FC. Studio Music.
- 4.15 p.m.: 2FC. Studio. Wurllitzer Organ.
- 4.25 p.m.: 2FC. "Nights of Gladness."
- 4.30 p.m.: 2FC. Studio Announcements.
- 4.35 p.m.: 2BL. Band (Grieg).
- 6.40 p.m.: 2FC. Sir Keith Smith on Aviation.
- 7 p.m.: 2FC. "In a Persian Market."
- 7.5 p.m.: 4QG. City Tabernacle.
- 7.15 p.m.: 2FC. The Monaco Quartette.
- 7.28 p.m.: 3LO. "Humoresque."
- 7.40 p.m.: 3LO. Cellist. "Ballade."
- 7.58 p.m.: 4QG. St. Stephen's R.C. Church.
- 8.3 p.m.: 5CL. St. Peter's Cathedral.
- 8.7 p.m.: 2FC. "Land of Hope and Glory."
- 8.20 p.m.: 2GB. Miss G. Augin.
- 8.27 p.m.: 2UE. Band, "Officer of the Day."
- 8.30 p.m.: 2FC. Capitol Theatre.
- 9 p.m.: 2FC. Weather Report.
- 9.2 p.m.: 2FC. Wireless Singers.
- 9.36 p.m.: 3LO. Orchestra.
- 9.42 p.m.: 4QG. Band.
- 9.46 p.m.: 4QG. Closes.
- 9.47 p.m.: 2FC. Orchestra. (Horace Keats.)
- 10 p.m.: 2FC. Announced half-hour's Meditation Music.
- 10.20 p.m.: 5CL. Lecture.
- 10.30 p.m.: 5CL. News of E.W. Air Race.
- 10.40 p.m.: 5CL. Closes down and announced time as 10.10 p.m.
- 10.45 p.m.: 5CL. Overture, "Fideles" (lady announcing), said testing with Hobart and Williams Port, Tas.

dialled 4QG, and was rewarded by hearing the Brisbane Municipal Band playing in Wickham Park. This brought down the house, for there were several Queenslanders in our party, and what Brisbane does not know Wickham Park on a Sunday night! But that's another story.

That Sunday evening, round a blazing camp-fire under the stars, without a care in the world, is one long to be remembered. We forgot there were such places as cities and such things as business, in which men pit brain and brawn against one another for money. It was unthinkable. We lived again the days of real sport, when the world was without a care.

The "Cossor Melody Maker" was the standard type, put together in 90 minutes—at least, that is what the proud owner told us, with a visible swelling of his chest—the only addition being a pentode valve, recommended by the makers, in the third stage of audio.

YOUNGER SET ACTIVITIES

SWIMMING club for girls opens Monday night, December 2nd, at 6.30 p.m., at the women's Domain Baths.

Members are steadily pouring in for tuition in swimming, living, and life-saving. Business girls are seizing their opportunity to belong to the A.B.C. Girls' Radio Swimming Club after business hours. An expert teacher will instruct the members. The fee is 7/6 for six weeks' tuition.

Business Girls' Tennis Club opened Thursday night, November 21, at No. 2 Courts, Moore Park. A large number of members rolled up, and were instructed in the mysteries of the science of tennis. Some have already quite a good style, and, with further coaching, will go well ahead; whilst others are new chums, who will have to learn the A B C of tennis.

New children's clubs. Vaucluse and Wollstonecraft are the newest Younger Set clubs, being only three weeks old. Vaucluse has grown so rapidly that they are forced to move in order to have two courts. This speaks well for their enthusiasm.

ANOTHER REVOLUTION!

A note of scepticism is pardonable in the acceptance of this account from our New York correspondent. Reports of "revolutionary" inventions in which the inventor will not reveal his principle are not infrequent. So long as listeners do not allow such reports to prejudice them against current developments they are interesting reading. It may be many years before the development referred to in the article is apparent in apparatus available to the public, if at all.

FORTY-TWO men, including captains of the radio and allied industries, capitalists, engineers, and patent attorneys, gathered together recently in the Park Avenue apartment of Harris Hammond to see and hear a newly-developed radio receiving set for which astounding claims had been made.

The inventor and his backers confidently told the assemblage that the principles upon which the set operated revolutionised theories and practices that now guide the field of radio. Moreover, prominent patent attorneys asserted that these principles avoided all existing basic patents in radio engineering, and virtually created an entirely new field of radio development because of their fundamentally new and radical character.

The demonstration of the set was conducted under the direction of Dr. Alger S. Riggs, its inventor, a young radio scientist, who held the fixed attention of the laymen, engineers, and technical counsel invited to the demonstration for nearly two hours. When he was through discussing his set and demonstrating its operation by tuning in various broadcasting stations, they plied him with questions.

Almost to a man the witnesses declared they were "deeply impressed." Every engineer present agreed that Dr. Riggs had demonstrated that he could accomplish what he claimed, although the method of accomplishment was withheld as the inventor's secret.

The observers saw a small, compact device, looking somewhat like a radio receiving set's chassis, but free from the confusion of wires and valves usually seen inside the cabinet of an ordinary receiver. They heard the received broadcast programmes reproduced through a magnetic loudspeaker of the ordinary type. Then they heard phonograph records amplified through the new set.

Faithful Reproduction

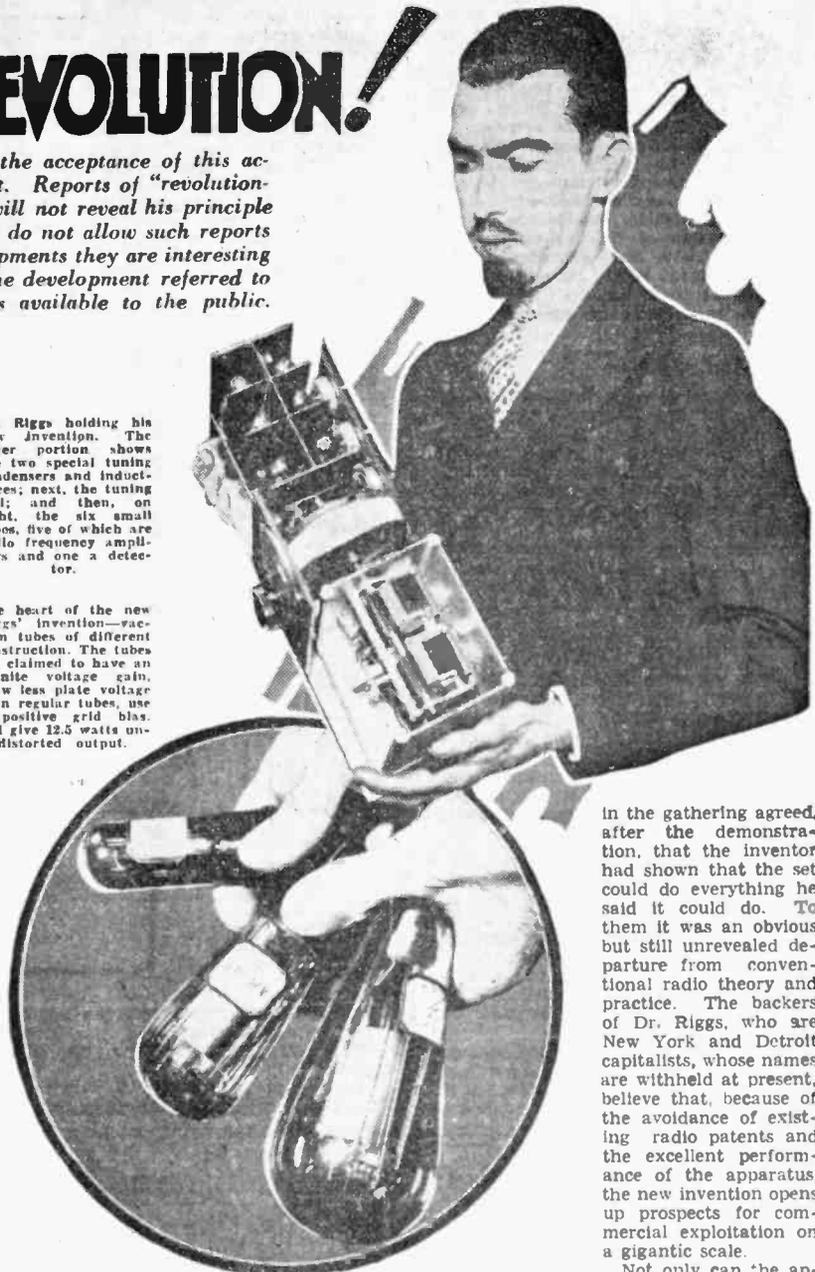
In all cases, the reproduction was faithful in the extreme. The tonal quality and the clarity equalled, if it did not excel, the best the auditors had ever before heard. This held true of orchestral, piano, violin, chorus, and single voice reproductions alike. The technical men heard and examined, somewhat dubiously at first, but plainly becoming more and more impressed as they pursued their inquiries and conducted a few tests.

A representative of Dr. Riggs read a statement, prepared by the inventor, in which it was asserted that the set avoids all existing circuits, including the basic-tuned radio frequency, circumvents practically all patents ever issued to cover the radio art, and opens fields of radio development hitherto regarded as utterly impracticable.

In substantiation of Dr. Riggs's claims to the discovery of a radio system radically different from any ever before evolved, signed statements by Douglas H. Kenyon, of the patent law firm of Kenyon and Kenyon, and Thomas Ewing, the former United States Commissioner of Patents, were read.

Dr. Riggs holding his new invention. The lower portion shows the two special tuning condensers and inductances; next, the tuning dial; and then, on right, the six small tubes, five of which are radio frequency amplifiers and one a detector.

The heart of the new Riggs' invention—vacuum tubes of different construction. The tubes are claimed to have an infinite voltage gain, draw less plate voltage than regular tubes, use a positive grid bias, and give 12.5 watts undistorted output.



In the gathering agreed, after the demonstration, that the inventor had shown that the set could do everything he said it could do. To them it was an obvious but still unrevealed departure from conventional radio theory and practice. The backers of Dr. Riggs, who are New York and Detroit capitalists, whose names are withheld at present, believe that, because of the avoidance of existing radio patents and the excellent performance of the apparatus, the new invention opens up prospects for commercial exploitation on a gigantic scale.

Not only can the apparatus be used for radio receivers, but the principles involved in the broad patents applied for, it is said, will cover its use in broadcast transmitters, radiotelegraphy, radiotelephony, land line repeaters, specific high accuracy electrical measurements, amplification of extremely high radio frequencies, and motion picture sound reproduction.

The only man whose direct connection with the project can be revealed is J. J. O'Brien, of Detroit, who heads the Brihall Corporation, which controls the Riggs patents. It is understood that nearly £40,000 has been spent by the young inventor's backers to carry the invention through its developmental stages.

Technically described to the writer by the inventor, the set "consists essentially of a selector by which the desired signal is filtered from an ordinary antenna. The signal passes through a radio frequency amplifier wherein it is amplified to the proper degree for detection. The detector is a substantially straight line and possesses

Though radically new in design, the set is extremely simple, and its inventor and his backers say, will be much cheaper to manufacture than the sets now in use or on the market. Like the ordinary radio receiving set, it employs tubes for detection, amplification, and power output.

But, unlike the ordinary receiver, its tubes must be of special design and manufacture. Therein lies the secret of the new system—a secret the inventor is guarding zealously, though he says the principles involved are extremely simple.

No Negative Bias

Mr. Kenyon explained—and engineers or amateur technicians will readily discern the radical departure from common radio theory involved—that the Riggs apparatus "does not include the use of negative grid bias, push-pull system, tuned radio frequency, grid leak and condenser, neutralisation and balancing, regeneration, reflex arrangements or secondary emission."

Mr. Ewing confirmed Mr. Kenyon's statement in its chief details, and the engineers

the sensitivity of the grid leak and condenser, with the quality and power handling capacity of the negative "C" bias power detector.

"However, utilising neither grid leak, condenser, nor negative "C" bias, it accomplishes something never before accomplished with a vacuum tube detector.

"The detected signal is passed into a polar amplifier. The audio amplifier, which raises the detected signal up to loud-speaker volume, is capable of extremely high quality reproduction, due to the fact that no transformer or reactive couplings are employed. The only transformer in the entire apparatus is the output transformer between the power amplifier and the loud-speaker, which is of the ordinary dynamic type.

New Kind of Valve

"Five stages of radio frequency amplification are utilised, together with a detector followed by two stages of audio amplification. The tubes are of entirely new design, in accordance with the new principles. The usual tubes cannot be used in the apparatus, nor can my tubes be used in any other radio apparatus."

The most radical departure in the Riggs system is its elimination of the necessity of negative grid bias, heretofore regarded absolutely essential in all amplifier circuits, patent rights on which are tightly held and guarded. The inventor revealed that his system uses a positive bias, accomplishing what has been considered technically impossible. That positive voltages were shown on a voltmeter when applied to each tube in the system, can be attested to by the writer and by the engineers who witnessed the demonstration.

No Known Circuit

The high quality of the reproduction, which compared favorably with three other well-known high quality receiving sets in the room, was also the subject for much comment by nearly everyone present at the demonstration. The set, in general, seems to accomplish everything any set will do—and more—and at the same time does not utilise any known accepted circuit.

About forty patent applications, involving several hundred claims, have been filed with the United States Patent Office.

"The inventions of Dr. Riggs in the operation and use of electron-discharge de-

veloped along fundamentally new and radical principles. Applications for letters patent in this country covering these inventions have been filed by us, on which we believe basic patents will issue. We believe the patent situation relating to the invention of Dr. Riggs is exceptionally strong."

The inventor himself attributes the development of the idea to the fact that, at the outset, he cast aside all engineering dogma and worked along entirely new principles. The results, he says, justify his claim that the new principles involved are sound in practice, even though they are diametrically opposed to prevailing theories in radio engineering.

Studied in Holland

Dr. Riggs, who is only 29, has made a lifelong study of physics, his studies taking him to Holland, where he won his degree. For several years he was research director of a large phonograph and radio manufacturing concern. Because the radio industry is so deeply involved in patent problems, the writer, the only reporter present at the demonstration, was asked to withhold the names of the men present.

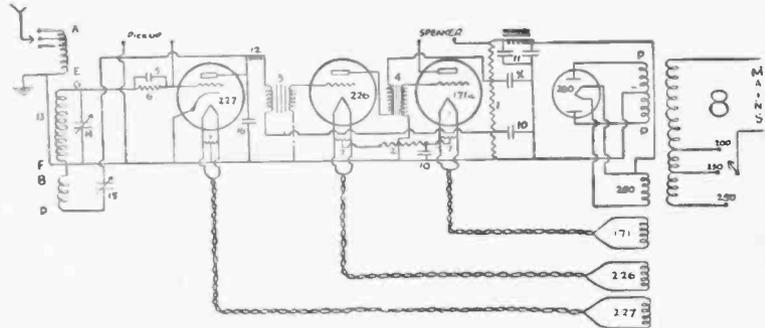
TRADERS PRODUCE SIMPLE A.C. SET

FOR the benefit of those radio enthusiasts wishing to build a simple all-electric set, or to convert their present receiver to light-socket operation, a number of "Wireless Weekly" advertisers (Messrs. Eclipse Radio, Co., and Grace Bros., Ltd., etc.) have combined to produce the unassembled parts or kits for a cheap all-electric set, employing a familiar type of circuit designed to give the least possible difficulty to the amateur constructor.

The lay-out of the set is shown on the point to point wiring diagram.

Fixed condenser, choke coil, and power transformer shown dotted, are in the exact positions of lay out, but for the convenience of wiring scheme, the panels showing terminals are shown drawn in full, lying flat. Actually looking at the transformer from the front of the panel, the terminal board is on the left of the set.

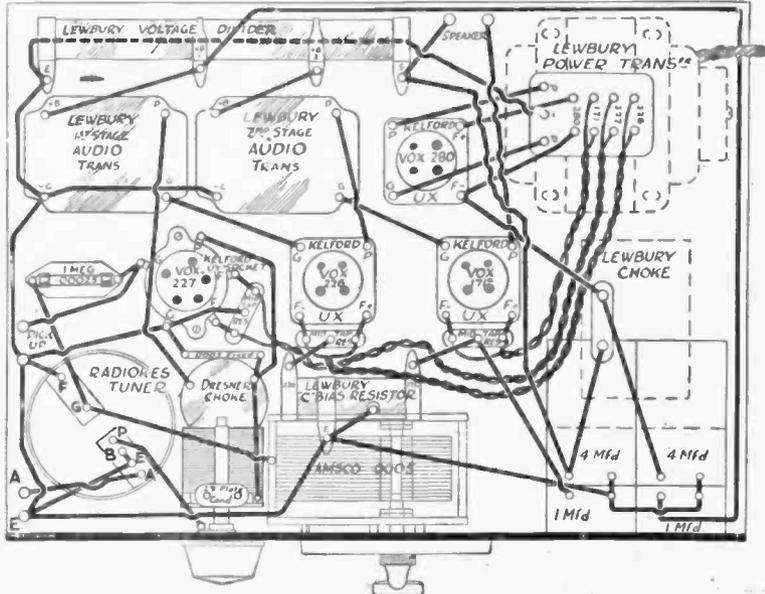
For compactness the two 4 mfd. condensers are laid on their side, with the 2 1 mfd. condensers on top of them, and the four of them held down by a piece of brass pinned over



them and screwed securely to the base board. The actual diagram shows the terminals looking directly at them from the back of the set.

First start by securing a wooden base board and laying out the parts as shown.

When in position screw down firmly to the board.



PARTS RECOMMENDED

- AC 3, containing:—
- 1 Lewbury Resistance, kit type.
 - 1.—1 Lewbury Voltage Divider.
 - 2.—1 C Bias Resistance.
 - 3.—1 Lewbury First Stage Audio Transformer or Kelford first stage.
 - 4.—1 Lewbury Second Stage Audio Transformer, or Kelford second stage.
 - 4.—3 Kelford or any standard UX sockets.
 - 1 Kelford or any standard UX socket.
 - 5.—1 00025 Fixed Condenser.
 - 6.—1 Meg Gridleak.
 - 7.—3 National Centre Tap Resistances.
 - 8.—1 Lewbury Power Transformer, type C.
 - 9.—1 Lewbury, choke type 60, or 3085.
 - 10.—2 1 mfd. Fixed Condensers, TCC 250 V AC working voltage.
 - 11.—2 4 mfd. Fixed Condensers, TCC, 250V, AC working voltage.
 - 12.—1 Dresher R.F. Choke.
 - 13.—1 Radiorec All Electric Tuner.
 - 14.—1 Amisco or any reliable make .0005 Condenser.
 - 1 Vernier Dial.
 - 15.—1 Essanay 23 plate Midget Condenser.
 - 16.—1 0005 Fixed Condenser.
- Aerial and Earth Terminals.
Speaker and Pick-up Terminals.
Hook-up Wire.
- TUBES REQUIRED.**
- 1 226 Vox or Standard American AC tube.
 - 1 227 Vox or Standard American AC tube.
 - 1 171A Vox or Standard American AC tube.
 - 1 280 Vox or Standard American AC tube.

WARNING.—Although, with ordinary care, it is not possible to obtain any shock at all from this set when properly constructed, it is advisable to place your set in a cabinet, and always switch off the power at the main when making any alterations or adjustments.

DON'T FORGET

Mr. Hill's "Teora" Repeated Monday . . . Sydney Male
Choir . . . Water Polo . . . Lighting the Air Beacon
A Debate.

THE Sydney Male Choir will give a recital from the Conservatorium of Music on November 30, through 2FC. By general request, the first number will be "The Phantom Host" (Hegar), followed by a violin solo by Hugh McClean, "Havanase" (St. Saens), and a contralto solo, with male chorus, Brahms' "Rhapsody," by Edna McLelland.

The first half of the programme will conclude with a song by Alfred Cunningham "Thou Art Passing Hence," and the motet, "By Babylon's Wave" (Gounod), by the Sydney Male Choir.



Alfred Cunningham

In the second half the Sydney Male Choir will open with two numbers, "There is No Death" (O'Hara) and "Serenade" (Schubert), followed by two songs by Edna McLelland, "Cradle Song" (Kreisler), and "At the Well" (Hagemann). Two excerpts will be given from "The Maid of Islington" (the music by Christian Hellemann. A duet, "Love's Own Tower," will be sung by Ruby Zlotkowski and Norman Ellis, and the "Marching Song" by Norman Ellis and the choir. The next items are selections for the violin, "Caprice" (Paganini-Kreisler) and "Perpetuum Mobile" (Ries), by Hugh McClean.

By request, Alfred Cunningham will render the "Prologue" from "I Pagliacci" (Leoncavallo). The concert, which will occupy the entire evening on 2FC's programme, will conclude with "Ring Out, Wild Bells" (Fletcher), sung by the Sydney Male Choir. As this choir is the finest of its kind in Sydney, listeners may look forward to a musical treat.

IT will be remembered by listeners that the feature talk from 2FC on Sunday, September 29, was given by Rear-Admiral Evans, who is in command of H.M.A.S. Australia. The subject of his address was "The Dover Patrol," and it proved to be one of the most interesting ever heard from 2FC.

Rear-Admiral Evans has been invited by the Australian Broadcasting Company to deliver a second address, and this has been arranged for Sunday, December 1, at 6.40 till 7 p.m., from 2FC. The subject he has chosen is "Convoys, Armed Boarding Steamers, and Mystery Ships."

"MORE Moments with Mark Twain" will be given by the "Storyteller" at 3LO on December 6, when the life of this famous humorist will be continued. Few writers have had a more colorful life than this popular American humorist, who had his first editorial office on a wharf, and kept a loaded six-shooter on his desk to deal with refractory intruders. His novels, "Tom Sawyer," "The Innocents Abroad," and "Huckleberry Finn" enjoy a wide vogue to-day, and the impression of his life, as given by "The Storyteller," is most entertaining.

NEWCASTLE Civic Week, which commences on December 14, with the official opening of the town hall at 2 p.m. by his Excellency the State Governor, Sir Dudley de Chair, K.C.B., M.V.O., will be broadcast through 2BL. Items from the Newcastle Elsteddfod and dance music by Lynn Smith's Band, from the Newcastle Palais, will also be broadcast through 2FC.

On Sunday, December 15, arrangements have been made to broadcast through 2FC the morning service from the Newcastle Cathedral. The afternoon service will be broadcast from the King Edward Park, and from 6 p.m. to 6.40 the broadcast will be the Newcastle Baptist Tabernacle choral service.

On Monday, December 16, a concert will be broadcast through 2BL by the Newcastle Choral Society, assisted by the Steel Works Band.

WHILE touring the Continent and London Mr. Wallace Nelson interviewed many of the world's celebrities, and he has chosen Sir Ronald Ross, the man who built the Panama Canal, for his address from 2FC on Tuesday, December 3. He will give a description of the Ross Institute, where he interviewed Sir Ronald Ross.



Wallace Nelson

It was while dining with Sir Ronald that he met Sir Malcolm Watson, another eminent authority on tropical diseases, whom he will also describe in his talk. He will tell the story of the discovery of the malaria germ, giving his impressions of the discoverer.

THE first big water polo match of the season will be broadcast from the Domain Baths on December 3, when Pyrmont first-grade club meets Bondi. Pyrmont is the premier club, but Bondi has a number of fast men, including Tas King, who is the back-hand throwing champion of the Water Polo Association.

Both teams are in the pink of condition, and have practised together sufficiently to ensure speedy passing and good combination. The broadcast will be made by W. Morris, the secretary of the Water Polo Association of Australia, who will give the uninitiated a few points about the game before the match.

MRS ERNEST HUME will speak from 2BL on December 5 on "The Experiences of a Lady Announcer." She was well known in Adelaide as the only woman in active management of a broadcasting station, and also the only woman announcer in Australia, and probably in the world. For two years she was in charge of Station 5DN, where she had previously occupied the positions of children's storyteller, elocutionist, and programme director.

Mrs. Hume's second talk will be on "Celebrities I Have Met in the Studio," and their impressions when facing the microphone for the first time. The third of the series will be "Pen Pictures of Life," touching briefly on subjects such as "Marriage," "Children versus Parents," and "Optimism."

THE REV. R. B. LEW does not claim to be an expert in feminine psychology, but he has a real admiration and a profound faith in the "Modern Girl," which is the title of his talk from 2BL on December 3. He believes that the modern girl possesses unique opportunities for development of her personality!

The modern girl differs in many respects from her grandmother, and, because of her environment, has to make certain adjustments in her outlook and methods of life—her healthy way of dressing, her gaiety and camaraderie, her independence and efficiency.

THE WEEK'S TALKS

FRIDAY, NOVEMBER 29.

2BL.—1.15: Mrs. Meredith Atkinson, "Oxford." 2.30: Major Sanford Morgan, "Yopayusa, the Mountain of Great Excellence." 3.45: The Storyteller, "First Editions—an Adventure in Literature." 2FC.—12.0: Captain L. Roberts, "Burma." 2.2: Michael Sawtell, "Native Customs and Faith Healings." 4.0: "Redgum." Gardening.

SATURDAY.

2BL.—10.40: G. W. Cooper, Gardening. SUNDAY. 2BL.—5.10: C. N. Baeyerztz, "Modern Philosophy—Bacon to Bergson." MONDAY. 2BL.—2.30: Business Efficiency. 3.45: Michael Sawtell, "In Tune with the Infinitesimal." 2FC.—12.0: V. C. Bell, "The Public Forum." 3.0: Department of Education, a talk. 4.0: Mrs. Mildred Muscio, "The Children's Charter."

TUESDAY.

2BL.—2.30: "Half an Hour with Silent Friends." Mr. Stevens. 3.45: Rev. R. B. Lew, "The Modern Girl." 2FC.—12.0: Mrs. M. E. Pulsford, "Child Psychology—The Destructive Child: Selection of Toys." 3.0: F. H. Raward. 4.0: The Storyteller.

WEDNESDAY.

2BL.—2.30: "Half an Hour with Silent Friends." Mr. Stevens. 3.45: Goodie Reeve, "Aids to Personality." 2FC.—12.0: A. A. Bowles, "Transport as a Commodity—Roads versus Railways."

THURSDAY.

2BL.—2.30: "Half an Hour with Silent Friends." Mr. Stevens. 3.45: Rose Antill de Warren. 2FC.—12.0: Gertrude Mack. 3.0: C. N. Baeyerztz. 4.0: Mrs. E. Hume, "Experiences of a Lady Announcer."

EVENING SESSIONS.

FRIDAY.

2BL.—9.30: Wallace Nelson, "A Great Australian—a visit to Professor Gilbert Murray's Home at Oxford." 2FC.—9.0: George Black, "Old-time Theatricals."

SUNDAY.

2FC.—6.40: Rear-Admiral Evans. 7.30: C. N. Baeyerztz, "Melody of Speech, Part II."

TUESDAY.

2BL.—9.30: V. C. Bell. 2FC.—9.0: Wallace Nelson, "Sir Ronald Ross—The Man who Built the Panama Canal."

WEDNESDAY.

2FC.—8.20: C. N. Baeyerztz.

THURSDAY.

2BL.—Fred Arlington Burke, "Australia and the recent American Financial Crash."



Mr. C. F. Marden, Superintendent of Broadcasting Stations.

MR. C. F. MARDEN, superintending manager of all broadcasting stations in Australia for the Australian Broadcasting Company, has been organising the Australian Broadcasting Company in Victoria since June last.

Prior to joining the Australian Broadcasting Company, Mr. Marden spent about 20 years in the theatrical and entertainment world, and during that time he held important managerial and organising positions.

Mr. Marden said that the Australian Broadcasting Company would continue to broadcast their comprehensive and essential services, and that everything possible would be done to popularise the programmes along the lines adopted recently in Victoria, having regard at all times to the requirements of every class of the community.

He will soon go to Adelaide and Brisbane to organise services preparatory to the taking over of 5CL and 4QG by the A.B.C.

THOUGH practically a newcomer to Australian broadcasting circles, Fred Whitlow has established quite a reputation with his dramatic and humorous character studies, and will be repeating some of his successes from 3LO on December 8. Whilst in England Mr. Whitlow was associated with many of the leading artists, including the late H. B. Irving, and broadcast from many leading provincial stations. Included in his broadcasting repertoire are many Dickensian studies, well off the beaten track, including *Saunders Gamp*.

TENNIS enthusiasts should make a note of December 6 at 3LO, when Miss Patricia Dawson, the young English tennis champion, will give some advice to young players. Miss Dawson, who gained her first championship at the age of 14, has played for some years on the leading English and Continental courts, and comes to Australia to demonstrate all that is latest and best in this popular game. She has been appointed coach to many of our leading schools, and her talks over the air should command interest.

THE official opening of the Hinkler Air Beacon, on the summit of a shopping block, by the Prime Minister, Mr. Scullin, which has been set down for 7.30 on Saturday evening, November 30, will be broadcast through 2FC. The Hinkler Air Beacon, Australia's first contribution to the safety of night flying, has been erected by Union Theatres, Limited. Mounted on a large steel tower, 50ft. in height, it is 220ft. above the street level, and can be seen at a distance of 30 miles under conditions of average visibility.

The official switching on will be attended by Federal Cabinet Ministers and civic, naval, aviation, and military officials and representative citizens. Captain Geoffrey Hughes, president of the Australian Aero Club, will make the introductory announcement, after which Mr. Scullin will perform the opening ceremony. The latter's speech, it is anticipated, will be of especial public interest, in view of his recent declaration that Australia's first arm of defence was in her aerial forces, which in times of peace could be employed in civil aviation and commercial development generally.

The beacon will be switched on at approximately 7.45 p.m., and an exhibition of night flying in the beacon's ray will be given by the Airway Bestway plane, piloted by Messrs. Eric Chaseling and Vallance.

The plane will be flown under dual control. Flying over the city, the plane will give the first aerial fireworks display over the city.

THE series of talks about adventures in the Australian bush, which Michael Sawtell will broadcast from 2FC on Friday, November 29, are drawn from his actual experience during the 13 years when he roamed the wild country of western Queensland, the Northern Territory, and Kimberley district. When he was 16 he left St. Peter's College, Adelaide, to learn wool-classing on a sheep station in Queensland, but found the life too dull, and ran away.

After many adventures, he began a cattle station in the unknown country of Yampi Sound, where he lived alone, with only the natives for neighbors, for two years. Mr. Sawtell travelled 900 miles from Darwin to Derby overland alone. In his next broadcast he will chant some corroborees and recount a few of his adventures.

A NEW feature will be introduced into the 3LO programmes on November 29 by Mr. John Hopkins, elocutionist, who will commence a series of "Orations of Famous British Statesmen," which will include those of such distinguished people as William Pitt, Lord Chatham, Disraeli, and Mr. Gladstone.

THE A.B.C. makes an advance announcement that on Christmas Eve, Tuesday December 24, at mid-day, a special community singing session will be conducted at the Town Hall, Melbourne, at which Christmas carols will be sung and other features appropriate to the season and special greetings to hospitals will be broadcast from 3LO.

HAMILTON WEBBER, Mus. Bac., the Australian conductor and composer, is to take over the musical arrangements for the Sunday Night Musical Ensemble from 3LO. All phases of music and instrumental numbers will be featured. In addition to the instrumental items, the best of Australia's vocal talent will be introduced. The first programme arranged by Mr. Webber will be broadcast on Sunday night, December 1.

BY permission of Messrs. Cramer and Co., London, the Australian Broadcasting Company will broadcast from 3LO on Wednesday night, December 11, Offenbach's opera, "The Tales of Hoffmann." William G. James is to direct the production, for which he has selected a special cast, and which will be presented on a grand scale with full chorus, orchestra, and effects.



William G. James.

WHAT would Christmas be without the delicious sweets and confections that form such an important part of the festive menu? Never was the home-made sweet more popular than it is to-day, and dainty confectionery is always an acceptable gift. There are many simple recipes quite within range of the amateur cook, and the talk on "Christmas Confectionery" programmed at 3AR on December 4 by Miss Avis MacLachlan should be followed by many interested housewives. It may be mentioned that the recipes that will be given have been chosen for simplicity, and will not entail the use of an elaborate outfit.

LIZA LEHMANN'S song cycle, "The Daisy Chain," will be given from 3LO on December 4, under the direction of Madame Ella Kingston, when twelve original songs of childhood will be given by a mixed quartette, including Miss Winnie Mayberry, and Messrs. Val Wolf and Ernest Sage. Madame Ella Kingston is well known as an artist both in England and Australia, and has devoted her time to the study of oratorio and chamber music.

A FINE programme of work by the Australian composer, Louis Lavater, will be given from 3AR on December 2, when piano and vocal solos, together with string quartettes, will be introduced. Assisting artists will be Miss Phyllis Parlett at the piano, and Mr. Alexander Raff (bass-baritone).

RAYMOND LAMBERT, pianist, will be heard in a recital from the works of Beethoven at 3LO on December 1. Mons. Lambert made his first professional appearance at the age of 10, and later studied under the world-famous pianist, De Greef.

**ARE WOMEN
MENTALLY
EQUAL TO
MEN ?**

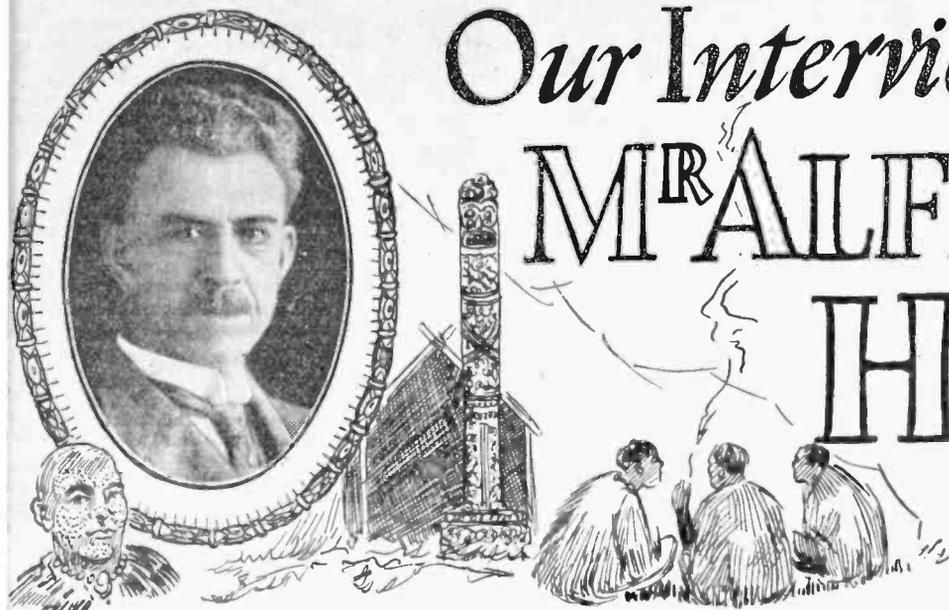
Mrs. LITTLEJOHN: —YES.

Mr. BAEYERTZ: —NO.



MRS. ALBERT LITTLEJOHN, the well-known feminist, and probably one of the most convincing speakers in Sydney, will oppose Mr. C. N. Baeertz in a debate arranged by the Australian Broadcasting Company from 2FC on December 4. The subject chosen is one with many debatable points, "Are Women Mentally Equal to Men?" Mrs. Littlejohn will take up the cudgels on behalf of her own sex, whilst Mr. Baeertz will endeavor to disprove that women are intellectual equals of men. (This paragraph was written by a woman.)

Our Interview With MR ALFRED HILL



I was with mixed feelings, both of awe and a certain subdued reverence, with which was mingled a certain—how shall we say it?—a certain "je ne sais quoi," that we entered the charmed portals of the State Conservatorium of Music. Here, all day long, the youth of the State of New South Wales is taught the minims and bars and those delicious crotchets of that

"Music, which is the Food of Love"—Shakespeare; and this is a very wise plan, for

"The man that hath no music in himself Is fit for treasons, stratagems, and spoils;" —The same composer;

and, as we were saying at the breakfast table the other day, Communism is a menace to the community, and should be firmly stamped out; although perhaps the application of the Musical Soul to business principles might cramp the style of some of our foremost Captains of Commerce.

Here, all day long, we said to ourself, is the New Soul of the Nation being forged, like a priceless stone, which will soon rise in all its glory to enlighten the New World to the immense gratification of those enthusiastic teachers who have given up so much towards this end, and who knew so well how to

"Weave the warp and Weave the weft— The (tumpy) pride of Edward's race"

—Tennyson
And here, we said to ourself, lives Mr. Alfred Hill.

"Mr. Hill in?" we asked the polite young man at the counter.

"Straight along that corridor, turn to the right, then to the left, then go up the staircase," which we did. The staircase is a winding staircase, enriched, as we said to ourself, by the countless footsteps of Distinguished Persons throughout the Ages, and at the top of the staircase is a Narrow Landing, and are three doors, one belonging to Miss Eleanor Ross, the other to Somebody Else, and the other to Mr. Alfred Hill. We distinguished Mr. Hill's door at last by a name-plate set in the top right-hand corner, characteristically enough, where no one could see it, and, after a little hesitation we knocked on the door in a subdued manner. Inside, someone was talking musical terms to someone else, and we concluded that the high voice belonged to Mr. Alfred Hill, and wondered whether we should knock again and interrupt him. We did. There

was no response. We knocked again. There was no response. We settled down to five minutes' waiting. Then the door opened, and Mr. Alfred Hill came out, short, with a tanned face, a deeply-tanned face, and the waxed moustache. We bowed. We said, "Mr Alfred Hill?"

Hearing us, he came to a dead stop, stood to attention, and looked straight before him. We said again, "Mr. Alfred Hill?"

He continued to look before him.

LICENCE FIGURES

LISTENERS' licences increased in all States during October, according to figures issued by the P.M.C.'s Department.

In New South Wales, from an increase of 969 in September to an increase of 1940 in October.

No fewer than 4891 new licences were issued in Victoria, leaving a net increase of 3986, after deducting cancellations. There have been fluctuations for many months past, but the net increase of licences for the period since the A.B.C. commenced operations in Victoria at the end of July last is 2002. Victoria is now in the remarkable position of being higher than ever before, with a total of 144,295 licences—the previous highest number being 143,393 in April last.

State.	New Licences.	Cancellations.	Total in Force.	Increase for October
Victoria	4,891	905	144,295	3,986
N. South Wales	3,983	2,043	107,489	1,940
South Australia	509	419	24,737	90
Queensland	373	1,088	23,505	—
West Australia	370	139	4,353	231
Tasmania	191	51	5,441	130
Totals	10,317	4,653	309,820	5,664

Calculating the figures for the twelve months ending October 31, every State, except Queensland, shows an increase—New South Wales leading with 18,526, nearly 80 per cent. of the total.

It is pleasing to note that now West Australia has come under the National Broadcasting Scheme, there has been, in two months, an increase of 415 licences—the greatest increase in that State since 1925, when licences reached 3943, and practically remained stationary for four years until the inauguration of the new service.

Queensland has been going back slowly, and the present licences in force, 23,487, are less than the number existing as far back as 1927.

Victoria shows an increase of 2307; South Australia 3301, and Tasmania 1617, for the year.

We repeated ourself, "Mr. Alfred Hill?" There was no verbal answer; but we thought we detected a slight uplift of the right eyebrow, and thus encouraged, we continued. "We—ar—we're from 'Wireless Weekly,' Mr. Hill, and we've come down for an interview." He must have been warned of our coming, because he said immediately. "Yes, well. Yes, well, you'd better come inside—you can have a look at some stuff I've got in here, while I go outside and blush!" He pushed open the door and went in, calling to us to follow him. We went in, past a table-full of students—it was them we had been listening to—and Mr. Hill was arranging some exercise books on a small table in a corner "Now you sit down," he said, "and study these, and I'll go outside and blush;" and, before we could get a word in edgewise, he was gone. So we began to turn over the exercise books, and they were full of press-clippings, beginning somewhere in 1899, and ending with the "New Jerusalem Cantata" in 1929, which is thirty years, gentle reader. Thirty years. Lord, how many interviews will we have written in thirty years?

Mr. Davis—we all know Mr. Davis—he teaches Harmony, etcetera, and is a frequent composer of Australian Nocturnes—came up to the piano behind us and played a few chords. "What's that?" asked Mr. Davis.

We said we hadn't the slightest idea; and turned round to find we were interrupting the work of the class. Mr. Davis played the chords again, and someone in the class said they were variations on the diminished seventh or something. Mr. Davis didn't agree, so we left them to argue it out, and returned to the press clippings.

Clippings from all over the place, they were; the "Bulletin," the "Triad," the "Telegraph," the "Herald," New Zealand papers, Brisbane papers, and so on. We were interested in some photographs of the ballets of "Tapu," a Maori opera, and of a comic opera, book by D. H. Soutar, music by Alfred Hill. Accompanying criticisms said that for the first time a ballet had appeared with bare legs and without tights, and how wonderful it was, and how quite moral. We sighed, and turned to Mr. Davis, who had dismissed his class, and said, "When will Mr. Hill be back?"

He said, "Mr. Hill has gone outside to blush!" We wondered whether this was a part of the daily routine of the Conserva-

torium, whether every day every professor went out from his studio for a few minutes for the purpose of blushing, and what for; and we said, "But he ought to have done it by now; when's he coming back?"

"I don't know when he's coming back," said Mr. Davls. "But I don't think he'll be back to-night."

"Good Heavens! We wanted to get an interview. We thought we made that perfectly plain."

"It's all there, isn't it?" asked Mr. Davls, pointing to the press books.

"Oh, yes. That's all right; but that's not an interview. We want to talk to him about things—get his opinions—get an interview see?"

"I see," said Mr. Davls, undecidedly. Well, I'm just going down to the buffet, and I'll tell him; but . . . Mr. Davls went out, and we returned to the press clippings.

Thirty years. The twilight, etcetera, were falling, and the room was getting dark, and we wondered if Mr. Hill would come back. Thirty years. We began to piece together what we had heard about Mr. Hill, so we might blunder through a page or so of vague interview. He was a New Zealander, went to Leipsic to study, came back to Sydney. Composed opera after opera. Trios. Quartets. The world's greatest authority on the Maori folk-song and dance. Walata Poi. Deputy conductor of the Conservatorium Orchestra. Conservatorium's first professor of Harmony and Counterpoint and Composition or something like that—look it up—Thirty years. That would not fill in thirty years—we must get some more information.

At this point Mr. Davls returned. "He won't be back to-night," said Mr. Davls.

"That's too bad," we said.

"Yes; I told him you wanted to talk to him. He told me to tell you anything you wanted to know about his private life."

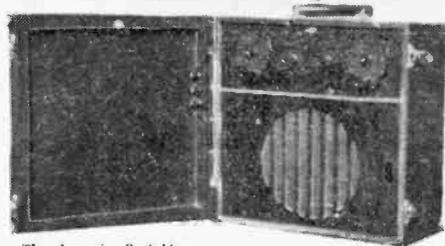
"His private life?"

"That's what you wanted to talk to him about, wasn't it?"

"Oh, hell! Did you tell him we wanted to talk to him about his private life?"

He did. So that was that. We hope Mr. Hill won't be annoyed with anything we have said here. We had been told about Mr. Hill's eccentricity, but we had to see such a demonstration to believe it; and we believe that such amazing eccentricity in the greatest musician in Sydney is well worth a page of such a disreputable journal as ours.

TWO AUSTRALIAN- MADE PORTABLES



The Imperia Portable.

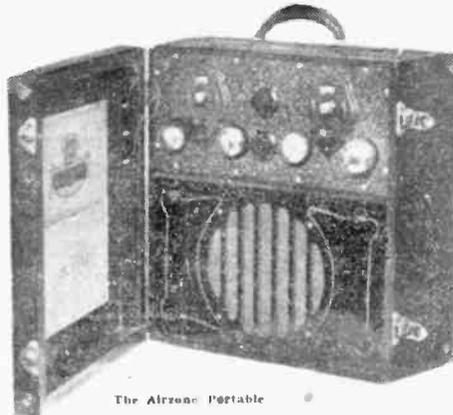
THOUGH Australian radio manufacturers have shown little active interest in the portable receiver, at least two highly-developed sets of this type are to be found. One is the widely-known "Airzone" portable, and the other the "Imperia"—a receiver designed by Harringtons, Ltd.

The "Airzone" receiver is built into a well-finished case, measuring about 16 by 17 by 8 inches. The loop is contained in the lid, while all other equipment is in the case proper. The set comprises four valves one of them operating as a radio-frequency amplifier. Two major tuning controls are provided on a panel of "crackle" finish metal. This panel is also provided with holes, through which the valves are inserted in their sockets. This arrangement permits the

changing or renewal of valves without the necessity of unscrewing anything, and also makes it possible for the set proper to be "sealed" up. Batteries are contained in a compartment under the set—a compartment which is faced with a neat grille, behind which is the speaker. The entire outfit is well designed and splendidly built. What is more, the receiver operates in a surprisingly effective manner. Though dry cells were provided in the receiver tested by us, we understand that it can be supplied with a small accumulator for filament supply and a small "B" eliminator for operation from the mains. The receiver has not been "skimped" in the way that many portables are, and it is, therefore, quite well for operation in the home as well as in the field.

We have not had the opportunity of testing the "Imperia" portable, but we know it to be a thoroughly satisfactory receiver. In this set, three valves are operated from a small accumulator. The parts used in it are of the well-known "Pilot" make. The total weight of the set is 27lb.; this, of course, including batteries, the speaker, and all that goes with them.

DOREEN BERRY will be giving another recital from 3LO on December 4, when she will be heard in some humorous monologues. Miss Berry is a most interesting personality, and during her jaunts round Europe has collected much that is entertaining and original. Her recitals over the air have included folk songs of Southern European countries and the history of many negro spirituals.



The Airzone Portable

A.B.C. WOMEN'S ASSOCIATION SESSION

Lecture Subjects

FRIDAY, NOVEMBER 29th.

10.40 a.m.: "Madame, Do You Know?" by Miss G. Varley. Miss Varley throws out question after question to the thousands of housewives, and answers them in turn, giving valuable information not easily found or the beaten path.

10.50 a.m.: "Home Confectionery," by Mrs. L. C. Norton ("Priscilla"). Letters continue to pour in to Priscilla, following up her unique talks on "Home Confectionery." She is a great favorite with hundreds of town and country folk.

MONDAY, DECEMBER 2nd.

10.40 a.m.: "Shooting a Picture at Midnight," by Miss G. Varley. Miss Varley will tell her experiences of taking part in the new picture now under production by the McDonnough sisters. It is a ballroom scene, and one of much gaiety. The Hotel Australia is handed over to them at midnight, when the public is absent, and the picture is "shot."

10.50 a.m.: "The Women of China," by Miss F. C. Sutton. Miss Sutton of the Y.W.C.A., who has spent several years in China, will tell her listeners of the women in

(CONDUCTED BY MISS G. VARLEY.)

China, a subject that always interests women. Miss Varley is endeavoring to get speakers from all countries to kindly introduce our Australian women to women of all nationalities.

TUESDAY, DECEMBER 3rd.

10.40 a.m.: "Our Health Bureau Talk," by Miss G. Varley. Another popular health talk will be given by Miss Varley, who finds that many hundreds of women follow her advice to exercise and diet very closely, and are writing of the beneficial results derived.

10.50 a.m.: "Country Women's Problems," by Miss L. Byrne. Miss Lorna Byrne will speak to country women, in view of Christmas celebrations, and help to overcome many problems arising. Miss Byrne has a big following of country women.

WEDNESDAY, DECEMBER 4th

10.40 a.m.: "Tennis Coaching," by Miss G. Varley. Another tennis coaching session will be given by Miss Varley, and she is always assured of her talk being well received, judging by the enthusiasm of the 500 tennis members of the A.B.C. Women's Association.

10.50 a.m.: "Diet Will Help Some Skin Troubles," by Miss G. Varley. Miss Varley will specially deal with "acne," which so

many mothers have to contend with in their growing boys and girls.

THURSDAY, DECEMBER 5th.

10.40 a.m.: "Aviation," by Miss G. Varley. Miss Varley will urge women to become interested in this sport for women, and tell of other women's experiences.

10.50 a.m.: "Constantinople To-day," by Mrs. Edith Glandville. This will be the first of a series of travel talks to be given by Mrs. Edith Glandville. She is a great favorite among the women listeners, and they will welcome a series of talks from this capable and charming speaker, who has visited parts of the world known to few English women.

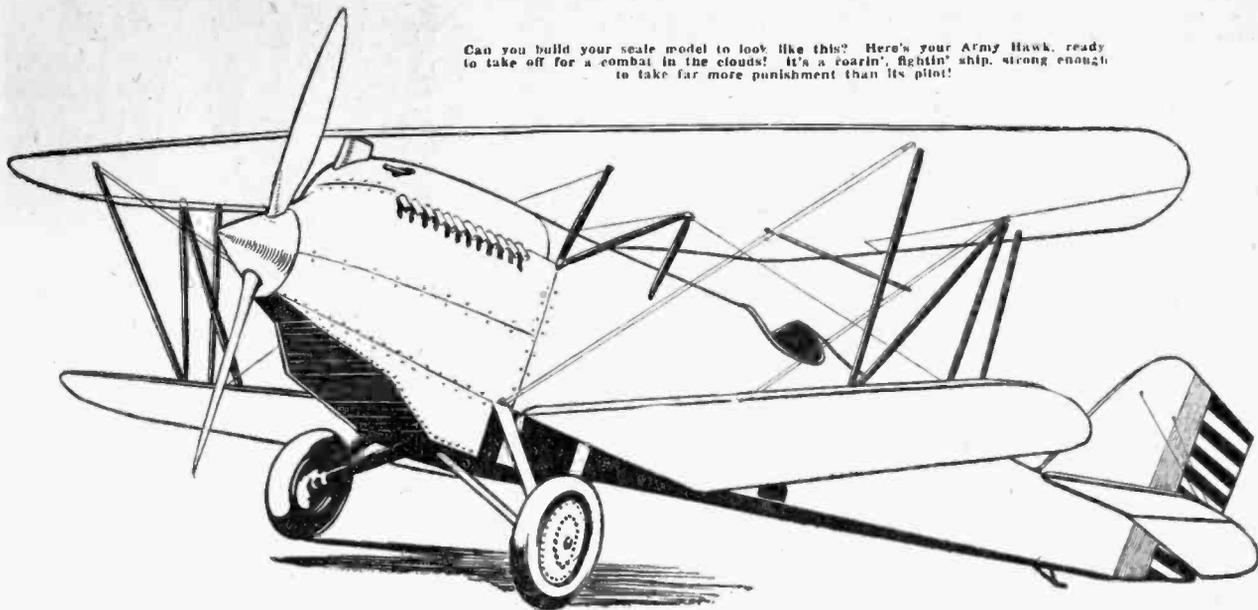
TUESDAY, DECEMBER 3rd

6.45 p.m.: "Girl Guides" Every alternate Tuesday night is Girl Guides' Night, and thousands of Girl Guides listen in to their leaders, who tell of the latest doings in the Guide world. It is a definite link between all the companies throughout New South Wales.

THURSDAY, DECEMBER 5th

6.45 p.m.: Girls' Radio Club. Miss Varley will help to form new clubs, and arrange Christmas holiday functions. Each week the Girls' Radio Club steadily increases its membership.

Can you build your scale model to look like this? Here's your Army Hawk, ready to take off for a combat in the clouds! It's a roarin', fightin' ship, strong enough to take far more punishment than its pilot!



A CURTISS ARMY BATTLE 'PLANE For Model Scale Builders

Published in conjunction with the Model Aero Club, whose session is broadcast from 2BL every Wednesday evening.

GET ready for a new experience. Readers following the "Wireless Weekly" series of aeroplane model articles have learned how to build "flying stick" planes—models built purely for lightness and flying quality. In this article you'll learn how to build a scale model—a 24-inch reproduction of the famous Curtiss Army Hawk.

You're not going to strive for lightness. You'll forget flying quality. You'll not follow a set of detailed building instructions. You'll use your own ingenuity in producing a model that will have—as nearly as possible—the exact appearance of the ship shown in the drawings and picture with this article.

Before you're through, you'll have had a liberal education in the design of man-carrying ships. You'll know wing shapes. You'll understand the importance of struts and braces. You'll be able to name the parts of big ships and understand their uses.

There's a wide difference between "flying stick" planes and scale models. The "flying stick" has a single balsa beam extending from propeller to tail. The wing sits far back on the stick to balance the 'plane. The scale model, on the other hand, is patterned exactly after the man-carrying ship. The wing of the man-carrying 'plane is far forward to carry the weight of the motor, and, of course, the wing of the scale model is far forward, too. But the scale model usually has a dummy engine that doesn't weigh as much as a real engine scaled down would weigh. That's why the scale model isn't balanced to fly.

From the picture and drawing you can get the information you need to build a satisfying reproduction of the Hawk. These show top, front, and side views of the ship, the exact size you will build your model. This means that you may use any part of the scale-size drawing as a pattern, or template, from which to construct your parts.

The scale-size drawing also shows the exact cross section of the wing at various places along its length. All measurements on the

drawing are given in inches, so that you needn't scale them down.

You'll get a thrill out of reproducing the Hawk. Its speed ranges from 70 to 170 miles an hour. It is designed to out-run and out-trick an enemy 'plane. It will stand unbelievable strains without cracking up. You can pull it out of a dive so fast that you'll lose consciousness—and still it won't crack up.

Before you start building it soak up every bit of detail you can from the drawings. Then begin.

Where to start? That's entirely up to you—but you'll probably begin with the fuselage. The side drawing gives you the exact length of the fuselage, the top view gives you the width at different places, and the picture gives you the general shape.

What materials shall you use? Again that's up to you. Some of you will carve the fuselage out of solid white pine, or balsa. Some will build it up from flat wood, steamed and shaped. Some may actually use metal! Take your choice.

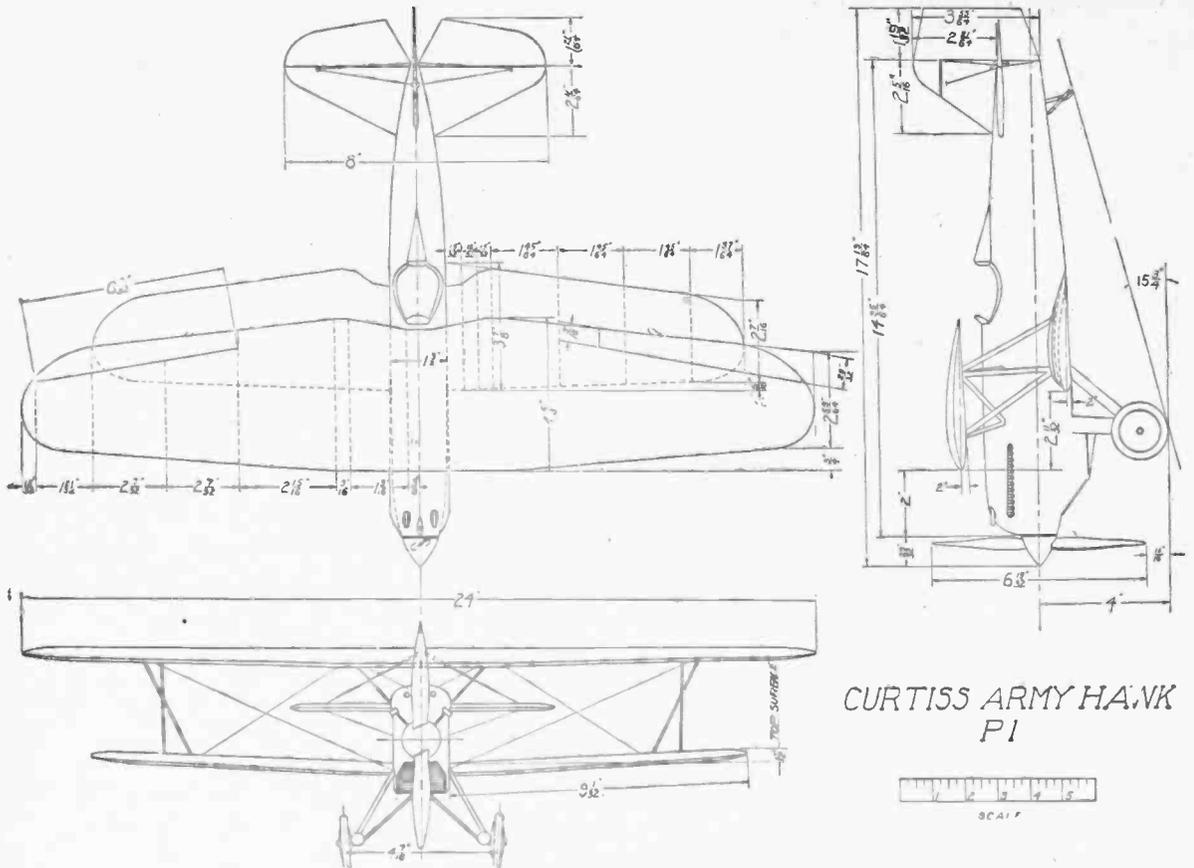
What tools—what methods? Again that's up to you. Anyone can carve with a knife, bend with a pair of pliers, smooth down with a small block plane, and sandpaper to size. Building a scale model is a test of your ingenuity and workmanship, and you don't want to be told exactly how to proceed.

A few tips, though, will help you. Notice the radiator under the propeller. Corrugated cardboard, painted over will reproduce it nicely. For your two gun barrels and your exhaust pipes you can use either small metal

MAKE YOUR OWN MAN-CARRYING GLIDER

A light, easily built machine, in which you can obtain all the delights and thrills of real flying, by soaring down hillsides, will be described in an early issue of "Wireless Weekly." Designed and made by a young Australian, living at Manly, this glider will afford the aviation enthusiast all the excitement he wants, without an expensive outlay, and with just enough risk to make it interesting.

Watch for an article on gliding in our next issue, to be followed by constructional details and diagrams in the Special Christmas Number, the following week.



CURTISS ARMY HAWK PI

tubing or wooden pins, painted black. No parts, such as ailerons, rudder, or propeller, need be movable.

Notice in the picture the N-type struts streamlined, and the extra strut on each wing running to the aileron. In the drawing you'll see that the lower wing is 2 11-32 inches in back of the upper. That's extremely important in air fighting, because it allows the

pilot to look forward and down. It reduces the blind area.

The drawing shows you that the top wing is perfectly flat, while the lower one has a dihedral angle of 1 1/2 degrees. (The dihedral angle, you'll remember, is the upward slant of the wing from the centre to the tips.) Notice, too, in the side drawing, that both wings have a negative angle of incidence of

two degrees. That is, when the ship is in horizontal flight both wings point downward two degrees!

These details are important in scale model building. Watch them carefully as you proceed.

When you've finished the ship, paint it khaki. Then paint in the cockades and army markings.

Tricks of Time--Accepted Before Proposal--When 1930 Becomes 1929

PHILOSOPHERS and some mathematicians tell you that time does not exist. It may not, but its very intangibility plays queer tricks. People whose work lies with the exchange of international messages can tell quaint things about time.

It is said, for instance, that a girl in England recently accepted a boy friend's proposal of marriage at nine o'clock one morning, whereas it was six in the evening (same day) when the young fellow popped the question.

Now they are married and living in Sydney, and the husband has a provoking way of telling their friends about it. This involves the wife in a cumbersome explanation—how she received a Beam from Sydney from Fred telling her that he couldn't live in Australia without her any longer, and asking her to marry him—quite a long message he seems to have despatched. She replied in all good faith, and now Fred has discovered that, owing to the difference in time between Sydney and London, her mes-

sage left London earlier than his had been sent from Sydney. She supposed she would never hear the last of it.

That is the curious part of this time business. Send a Beam radio from Sydney at 6 p.m., and it is received in London shortly after 8 a.m. the same day. A Beam to New York lodged at the same time is received soon after 3 a.m. that day. We are ten hours ahead of London, fifteen ahead of New York, eighteen ahead of San Francisco, and 20 1/2 hours ahead of Honolulu.

Turning in the reverse direction we find that Suva is two hours ahead of Sydney. This means that Suva is 22 1/2 hours ahead of Honolulu, 6 a.m. Suva time being 7.30 a.m. at Honolulu. But the day for Honolulu is the one previous to that of Suva.

Between those two places lies the International Date Line, running from the North Pole to the South down the whole length of the Pacific Ocean. On the Sydney side of it the day is Monday, on the other side Sunday. Passengers on shipboard travelling west miss out a day of the week, going east they

have two Christmas Days if they happen to reach the Date Line on December 25. Were it not for the International Date Line one could, by following the sun westward, get farther and farther ahead of one's starting place until, after travelling round the world, one would have a whole day in hand.

The change of time causes strange things to happen. New Zealanders, for instance, can go to church on Sunday night and, after returning home, tune in a Sydney church service on their radio sets. Or they can dance at night to local broadcast music, and when their stations close down they can tune in Sydney and continue. If their receiving sets were sufficiently powerful, they could follow the stations westward, and keep the ball going until their own broadcasters chirped up again next day. They could go on forever.

New Year's Day is approaching. Anyone who likes to be out of the ordinary, can sit up the night before and hear music played in New Zealand in 1930 when we are still in 1929.

The MELODY OF SPEECH

The half-hour talk on the Melody of Speech, by Mr. C. N. Baeyertz, on November 3, in conjunction with his article and diagrams in "Wireless Weekly," aroused so much interest that he has been asked to speak again on the subject next Sunday, December 1, from 2FC, at 7.30.

Mr. Baeyertz is desirous that listeners on that occasion shall have before them the illustrative diagrams contained in this article from his pen.

In the former article he transcribed in musical notation 18 examples of melody, which he subsequently spoke over the air. As these transcriptions meant nothing to those unable to read music, he now adopts a simple notation, easily understandable by every reader, musical or unmusical.

IN reading the excerpts, note the relative pitch of the melody, and the rising and falling slides in the voice. Understand, also, that I am not laying down tyrannical yard-measure laws from which there can be no deviation. Your melody for any of these examples may differ from mine, but each melody may be, in the differing circumstances of our minds and temperaments, entirely right and natural.

Whenever we are sincere we can dare to be original; in fact, we must be original proportionately as we are sincere. And every original impulse, based on reason, is a step onwards.

I have marked one melody. There are others.

- A
- (1) Well done.
 - (2) The Pacific Ocean.
 - (3) Expect me to-morrow.
 - (4) You will be welcome.
 - (5) When can I speak to you?
 - (6) Where has he gone?
 - (7) Are you coming?
 - (8) Do you hear?
 - (9) Do you hear? It is ever so far away

- B
- Seven different ways of saying "Yes."
- (1) Yes. (2) Yes. (3) Yes. (4) Yes. (5) Yes. (6) Yes. (7) Yes.

C

Compare these two melodies. In reply to the question, "Do you think a knowledge of the technic of speech is indispensable?"

- (1) Yes I think it is indispensable.
- (2) Yes I think it is indispensable.

The first expresses luke-warm agreement, but the intonation curves in the second, convey the idea "Yes, of course, I think there can be no possible doubt about it"

G

The Queen says to Hamlet

"Hamlet you have your father much offended

Note the bitter irony in the melody of Hamlet's reply

"Madam you have my father much offended."

H

She lov'd me|for the dangers I had pass'd
And I lov'd her|that she did pity them.
This only|is the witchcraft|I have us'd

E

- (1) Horror "O save me, Hubert, save me!"
- (2) Irony "Cry aloud; for he is a god; either he is talking, or he is pursuing, or he is in a journey, or peradventure he sleepeth, and must be awaked.—I Kings. 18-27

(3) Pathos (in a minor key):

She was dead Dear, gentle, patient, noble Nell, was dead

(4) Indignation. I'd rather be a dog and bay the moon, than such a Roman!

(5) Satire. "I am a Jew Hath not a Jew eyes? Hath not a Jew hands, organs, dimensions, senses, affections, passions? Fed with the same food, hurt with the same weapons, subject to the same diseases, healed by the same means, warmed and cooled by the same winter and summer as a Christian is?" Shylock in the Merchant of Venice "

F

Falstaff asks the Chief Justice, 2 Henry IV.: "Will your lordship lend me a thousand pounds to furnish me forth?"

To which the Chief Justice replies "Not a penny; not a penny!"

I

Entreat me not to leave thee or to return from following after thee for whither thou goest I will go, and where thou lodgest I will lodge, thy people shall be my people, and thy God my God; where thou diest will I die and there will I be buried, the Lord do so to me and more also, if ought, but death past thee and me—Ruth 1. 16, 17

SHORT-WAVE NOTES By R. N. SHAW

ONE of the most interesting transmissions of the week has been that of the Armistice celebrations in London, transmitted by 5SW on 25 metres. I picked up the first portion of this programme at 8.35 p.m., with ease, the volume and steadiness of the transmission being the best I have heard from 5SW for some time. The first chorus sung by school girls came through delightfully clear, as did the contribution by a lady who spoke for some time, and then interspersed her remarks with brief vocal ditties. Strange to say, the usual programme from 5SW, between 10.30 and 11.30 the same night, was comparatively weak.

HELLO! LONDON CALLING

The duplex telephony tests between London and Sydney still proceed merrily. The volume of speech on some occasions is extraordinary. On the 11th November, between 6 and 6.30 p.m., I tuned in the conversation between GBX and 2ME with such volume that London's little chat could be heard all over my residence.

K2RM

Radio Manila is still operating on about 26 metres, but volume varies very considerably. On some occasions splendid speaker strength can be obtained, particularly between 8.30 and 10 p.m.

RA97

RA97 has been coming with wonderful punch during the past week on 70 metres. He can occasionally be heard making special tests on 35 metres. These announcements are generally made by the lady announcer, who speaks in English between about 8.45 and 9.15 p.m. This lady gives a summary in clear English of the Soviet news of the day. Many of the musical items this week have been really excellent.

7LO

The East African station, 7LO, located at Nairobi, can now be heard at fair strength in the early mornings up till about 4 o'clock on a wave-length of 31 metres

PCJ

PCJ is well worth listening to on Friday

mornings, but weakens considerably after daylight. He can also be heard on Saturday morning and afternoon. The latter is very unreliable.

KGO, ETC.

Reception of American stations is also very uncertain. I did not hear any trace of KGO last Sunday, whilst reception of stations W2XAF and W2XAD is also rather poor, excepting for a while in the early mornings. KDKA can be heard at good strength up till about 7 a.m., almost any morning, and occasionally late in the evening. KDKA transmits on almost identical wave length with 5SW.

BANGKOK

The Bangkok station has been heard very clearly, and at good strength, on Monday mornings between 5.30 and 6.30 and occasionally at night between 10 and 12. Radio Suva is also maintaining splendid transmission, and can be logged between 8 and 9 a.m. on two-way 'phone communication.

3LO—4QG—

AND OTHERS—INCLUDING ALL LOCALS

At Full Volume and Perfect Clarity

THIS IS WHAT BUILDERS OF THE SUPER SELECTIVE

“RENONN THREE”

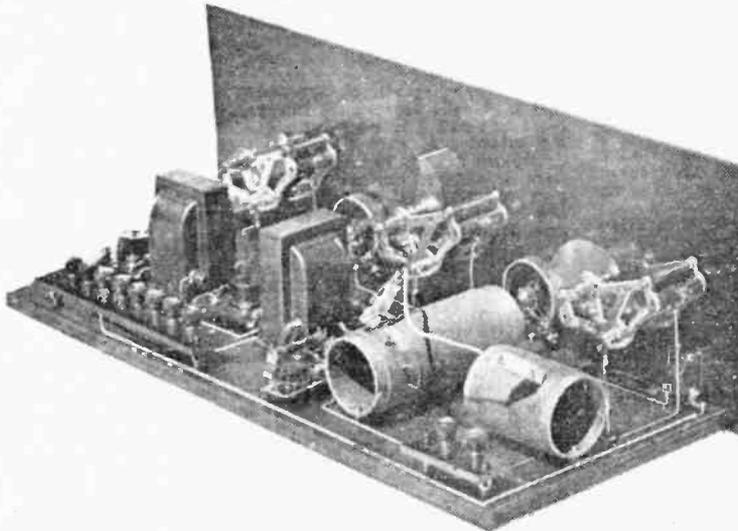
“THE THREE VALVE SET WITH THE FIVE VALVE PERFORMANCE”
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COUNTRY CLIENTS: Page 54 has a message for you. Avail yourself of a properly organised department which can take care of your every requirement.

126A PITT STREET.
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PHONE, M6139.

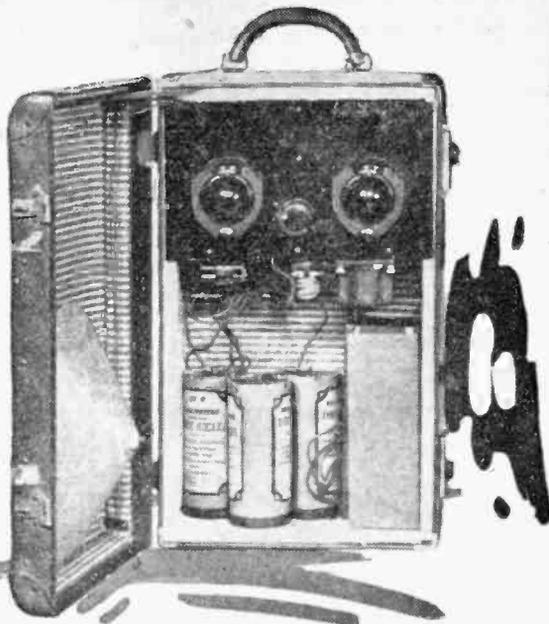
13 UNION STREET.
NEWCASTLE
(off Hunter St. West).
Phone, NEW. 1622.

MAIL ORDER DEPT.,
492 GEORGE ST.,
SYDNEY.

CORNER CHURCH &
MACQUARIE STS.,
PARRAMATTA.
PHONE, UW9601.

25 ROYAL ARCADE,
SYDNEY
(near Palace Theatre)
PHONE, M6138.

The Screen-grid Portable



By JAMES LAMB

HAVING listened to broadcasting every night during the winter, and having decided to get away from the city and civilisation for a trip or a vacation during the summer, it is rather strange that enthusiasts should wish to cart along some more civilisation with them in the form of a radio receiver. And yet we certainly do.

About the first thing that comes into my mind when a trip to the hills, or a vacation down the coast is suggested, is a radio set. Long before we have decided upon the place to go to, or the manner of getting there, I have thoroughly thought out the radio gear that I am to take—the spare valves, the aerial wire, and all the junk that goes with them.

In the past I have had some very splendid times on vacations or on short trips, rigging up a set and DX hunting on the cool still nights, but the fun has been, to some extent, spoilt by the difficulty of carrying a clumsy set, half a dozen loose batteries, the speaker, the valves packed in boxes, and the usual tangle of battery and aerial wires.

This year I planned to build myself an entirely self-contained set. One that was fitted up in a case with a handle, so that it could be carried around with ease—a set that could be put into operation at a moment's notice without the necessity of hitching up batteries, or stringing an aerial. After much experimental work, I built myself the set illustrated in this article.

Splendid Performance

Though I have not yet taken it away on the much-looked-forward-to vacation, I anticipate from the result obtained around Sydney that it will be a thorough success. Using the loop aerial, the local stations can all be received at excellent strength, and most of them have to be detuned quite a lot in order to avoid overloading the speaker. The stations in other States have not yet been heard with the loop, but my experience with the greatly improved reception in the country districts leads me to think that I will have no difficulty in listening to 3LO, 4QG, and the others just as soon as we get well away from the city. The set is rather heavy, as any set with decent filament and plate sup-

ply must be, but it is light enough to be carried without any very special effort. Then, on account of the plate voltage provided, the reproduction is much better than the usual run of "portables" with 45 or 90 volts of "B," and the improvement, to my way of thinking, well justifies the added weight.

The basis of the receiver is a light and cheap fibre suit case. The usual difficulty with such a case is that the lid opens the wrong way, and that the aerial cannot be fitted in it effectively, since it would be flat on the table or ground when the set was in operation.

The Carrying-case

This trouble has been overcome by taking the handle off the side of the case and fitting it at the top. The case is then carried in a vertical position, with the set on top, and the batteries under it.

When the case is placed on the ground, the lid swings open to one side, and the aerial can then be moved to the position which gives best reception. The removal of the handle from its normal position just means the filing of four rivets. Fitting it in the new position could be accomplished with

rivets, but I preferred the simple way of using four short machine screws.

Of course, the case is of flimsy construction, and since there is no reinforcement in the ends (not in my particular one), it is desirable to make a wooden frame to fit inside the case. I made the frame from wood about one-half inch thick. It fits snugly around the four sides of the case, and the screws that hold the handle run through the top piece. The case used measures 20in. high, 12in. wide, and 6½in. deep. It is just big enough to hold the set, batteries, and speaker, without any spare room, and, for this reason, I would suggest that builders of the set buy a case that is slightly larger. The sizes of the panel are given in the drawing, but, obviously, these will have to be varied if the case is wider.

Let us deal first with the construction of the set itself. Essentially it consists of a four-valve affair, with one stage of screen-grid radio frequency amplification. The circuit is just about as straightforward and simple as it could possibly be. The loop in the lid of the case connects directly to the grid and filament, and the first tuning condenser of the r.f. valve. No external bias is supplied to this valve, since it operates quite well with the grid return made to the negative filament. The screen-grid of the r.f. valve is by-passed in the usual manner, and is fed from a tapping on the "B" battery.

THE PARTS USED

V1—Osram S.410, V2 and V3—Osram D.E.L. 410, V4—Osram D.E.P.410.
 C1, C2—Formo .0005 mfd. variable condensers.
 C3—23-plate Pilot midget variable condenser.
 C4, C5—.5 mfd. T.C.C. fixed condensers.
 C6—.00015 Sangamo fixed condenser.
 R1—2 megohm gridleak.
 R2—See text.
 Radiokes radio frequency choke.
 T1, T2—Two Philips audio frequency transformers.
 L1, L2, L3—Coil unit, see text.
 Four UX type valve sockets, Pilot.
 Baseboard and panel, shielding can, two small size Kurz-Kasch vernier dials, fibre case, wooden frame inside same, bell wire for loop aerial, British G.E. speaker unit and cone, and batteries.

Importance of Coils

The coil unit, L1, L2, L3, is a very important component of the receiver, and careful attention must be given to it. The primary winding connected to the plate of V1 is wound in a "hank," and placed inside the secondary L2. This hank method of winding may appear to be crude, but it is certainly most convenient and thoroughly effective. As Mr. Hull has pointed out so often in connection with the "1930 Super-Het.," the idea in hank winding is to put on the turns as clumsily as possible. L1 is wound with wire of about 34-gauge, which was pulled off an old radio-frequency choke. The actual size of the wire does not matter very much, so long as it is of 30-gauge or a little finer. The coil was wound on an old UX 199, which makes it about one inch in

Wireless Weekly

Incorporating "Radio in Australia and New Zealand."

FRIDAY, NOVEMBER 29, 1929.

PORTING A SET ON YOUR VACATION

ALL the year around you tune-in your radio receiver in the one location, get the crackles from the near-by tram route, pick-up the noise of the local power-house, and what is less noticeable and more annoying, are probably screened by neighboring buildings or trees. All of which you blame onto the set or the broadcasting station.

You read of the extraordinary performance of So-and-so's set at Wollongong, somebody else's set at Penrith, or another's at Nowra, and find your own set wanting. These other people get more stations than you do, and apparently more often.

In the correspondence columns and in the technical article you see the extraordinary performances of these receivers attributed to location when all else is equal. Maybe you are sceptical. Why should it be easier to receive 2FC on a similar set at Bathurst, say, than in Sydney, not seven miles from the transmitter.

It seems absurd on the face of it, despite all they say. But once a year an opportunity is afforded of proving this matter of location to your own satisfaction. Once a year, at vacation time, you can steal the other fellow's situation. The holidays give you the chance of taking a set with you and comparing reception somewhere else, perhaps at two or three places.

Possibly you don't want to be bothered with a set on your holidays. That's true, but the right kind of set is no bother. If you build the one described in this issue it just shuts up in its case and is easily carried.

Even if this is too much trouble for merely to test out somebody else's theory about the importance of location in reception, a portable set will add much to your enjoyment either in the country or at the seaside.

Unlike a gramophone, there are no records to pack and carry, music is clearer, more varied, and more interesting. And it keeps you in touch with what is happening—only if you wish it, however.

Taking it all round, a portable set is an asset on a holiday tour, especially when it is as neat, compact, and easy to build and operate as is the one described in this issue.

REVIEWING THE PROGRAMMES

A Poet's Play

WE listened to Mr. John Pickard's "The Tomb of Osiris" last Thursday night.

We heard the gabbling crowds in the courtyards of the palace of the great Queen Hatsheput, we witnessed the entry of the queen, we heard the acclamation of the multitudes, the speech of the grand vizier or someone, the speech of the queen herself. We heard the priests singing to the great god Osiris (Mozart's Osiris or something or other, and wonderfully effective!), and we watched the dancing girls, in the usual manner in which one watches dancing girls. We followed the queen into her boudoir or whatever it was—a wonderful place—and we eavesdropped during her conversation with her tirewoman or whoever she was. Oh, yes, and before that a messenger had arrived, telling the queen of a fleet of triremes or something he had seen in the distance—that was why the queen was making so careful a toilette. Yes. And it was the King of Babylon, and he offered her almost everything Mr. Pickard could think of; but she turned him down cold. After some charming business about doves the queen's favorite enters, torn about by the poisonous claws of the cat with the great green eyes who was once the great god Osiris. He has been out hunting for the secret of eternal life, which he found eventually in the tomb of Osiris, where he had followed the cat. He imparts this secret to the queen, and gives

her the stuff she has to drink to make herself eternal, offering a gilt-edged guarantee that she will continue to live in a vampirish manner on the bodies of thousands of slaves which he will arrange to have killed and put in her tomb. When she has finished with these slaves she will be strong enough to live eternally, and in the course of a few thousand years will meet the true love to whom she aspired across the centuries. She takes the drug, screams, and is gone. End of act one to the majestic Tannhauser overture.

In the second act (there isn't much space) two English tomb-fanciers enter her tomb. And there is Hatsheput, after all these years, yearning for her lover. Tremendous! Will he go to her? His companion rocks away in a violent hysteria. No; he can't do it! It's impossible! He's dreaming! Yes! He will! He is hers! He moves towards her—he is in her ar—THE CAT—the GREEN-EYED CAT—a thundering crash as the whole tomb moulders into oblivion, and the turgid brooding magnificence of Wagner closes the romance.

Where Mr. Pickard got his Egypt from one doesn't know—he is a very young man. What matters is that the effect was there, and that we saw all these things with our own eyes; which postulates a poet, and adds to our hopes for the future of Sydney's radio drama. We have now two good playwrights, the dramatic Mr. Donnelly and the poetic Mr. Pickard; also a good producer in the efficient Mr. Halbert; and we hope that, in the future, these gentlemen will be SUITABLY ENCOURAGED.

P.S.—We had some severe criticisms to make; but we left them till last, so that we wouldn't have time to make them.

SECRETS OF THE RADIO INDUSTRY—6



TESTING RECEIVERS IN THE SELECTION OF THOSE WHICH MAY BE CLAIMED TO BE TRULY PORTABLE.

Critics Have Hazy Idea of Variety of Tastes

Dear Sir,—From my reading of letters in the "Safety Valve" over the last twelve months I am driven to the conclusion that a large number of the critics of programmes have a very hazy idea of the infinite variety of tastes that have a right to be catered for by the Broadcasting Company in such a community as ours. That such variety exists should be potent to everyone who keeps his eyes and ears open, and that each listener has an equal right to his tastes and to have them gratified should not need to be argued very forcibly.

The latest recruit to the ranks of the critics, Super-Six, thinks too much time is taken up with such items as "Women's Interest Talks, Household Hints, Household Helps, Talks on Gardening, etc.," and that more time should be given to those parts of the programme which he likes. Perhaps, it would be a good thing for our country if there were a greater demand for such talks.

It makes one wonder whether such criticism is not really a complaint against the world in general, as no one can possibly know how many listeners derive pleasure and profit from these talks. Let us hope there are many. There seems to be at the back of these criticisms, too, a vague conviction that our own tastes are in some way better than the tastes of others. There is, I believe, a feeling of superiority in all of us, a natural instinctive feeling, which makes us desire our tastes to prevail as well as our opinions.

Super-Six may be, and no doubt is, a very excellent gentleman, but a world of Super-Sixes would be painfully monotonous. Personally, I would prefer to see a fair sprinkling of Fords and Baby Austins, as well as motor bikes and Rolls Royces thrown in. Until some kind of referendum is taken of listeners' preferences, critics are doing no more than casting their votes openly one at a time, except perhaps blowing off steam.

Now, it would not be a very difficult or expensive business to obtain concrete data on the matter of listeners' tastes in the ordinary programme material, and so allot the time to be given to the different types of broadcast matter as to bring about more general satisfaction. This is my suggestion, and if it is not adopted at once, and I am universally acclaimed as the one and only who solved this national problem, I'll sell me set or give it away, and thus save the four-fifths of a penny per day which the programmes from about a dozen different stations are now costing me and bringing about my financial ruin.

But perhaps I'd build another, as I would hate to miss Maggie Foster playing "Danny Boy" and a minuet by Paderewski, as she did last night, and which was worth the whole year's miserable fee. What do these people want who don't get value for the four-fifths of a penny per day which they pay? Even if they get one item per day which is to their liking they are getting it cheap.

But to my suggestion. Here it is. Single sheets of paper containing a list of the various types of broadcast matter, with suitable directions, to be supplied to every post office, and one of these to be given to every person applying for a first licence or a renewal. The instruction might be to strike out all items which are not desired to be included in the programmes, and to number the remainder in order of preference. These papers could then be passed back to the

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 of expression—your safety valve. The editor assumes no responsibility for statements made by readers and published on this page. Anonymous letters are not considered.

post offices to be forwarded to the A.B.C. periodically. Tabulation of results could be attended to by announcers during gramophone record recitals, and would probably be welcomed as a means of filling in time. No doubt the A.B.C. would welcome the information, and would be only too pleased to give effect to listeners' wishes, especially if they showed a preference for "Yankee tripe." But, seriously, such a survey should be of great value to those whose enormously difficult task is to arrange programmes for such a vast and varied audience. In the meantime, I would suggest to critics that they do a little mathematical calculation by dividing the total time devoted to broadcasting by the total number of licenses held in N.S.W. to find exactly for what part of the time they are entitled to be suited just down to the ground.

I hereby give warning to "Wireless Weekly" that if it does not support this suggestion tooth and nail I will forthwith discontinue my subscription, and thus save another threepence a week by borrowing the paper from a neighbor, because I could not possibly do without it entirely. Mr. Scullin had better take notice, too, or I'll fix him next chance I get by voting for billieuse, so it is in his own selfish interest to get this referendum going next week.—Yours, etc.,
Lane Cove. CHRIS. COLUMN.

A.B.C. is Good

Dear Sir—I always read with interest the criticisms in the "Safety Valve." My opinion of the new Broadcasting Company is that it is good. The country people say that they are always "ramming" gramophone records down their necks. The music I hear is always very enjoyable. The new Broadcasting Company is better than ever. We have good music, descriptions of the wrestling matches, the Speedway Royal, etc. The country folk say that the new Company is no good; they say that the music is rotten. Well, every place I have been to with a radio, when the market session comes on, we always switched on to another station. That market session is bunk in my opinion, (probably because it does not interest me or most city folk).

The new A.B.C. younger set sessions are "bonzer" in my opinion. The Boys' Aero Club has 700 members, and it promotes aviation in every way to the younger members. The girls, too, have a club, and meet and go for picnics, etc., same as the boys.

Yours, etc. D. GARD.

Waverley.

Homebush Prices

Dear Sir,—In your issue of the 1st Instant Mr. E. C. L. Killen, of Nyngan, expresses what is practically public opinion in these parts regarding the treatment of the man on the land by the A.B.C. We all awaited with interest the "better programmes" promised when the A.B.C. took over, but to our disgust it is worse, not better, we have received.

Practically every market report is given in detail, particular attention being paid to poultry, vegetables, and Sussex Street produce; but the poor old sheep man has to wait for his weekly mail to find out how Homebush prices are. Why make fish of one and flesh of the other? If the A.B.C. cannot find time for the sheep and wool prices, let them cut the lot of the markets and give us more general news.

Practically everyone of my neighbors who have sets are making the same complaint about the broadcasting, so if the A.B.C. want to show a profit they will have to wake up and alter matters. Otherwise they will find that there will be fewer licences next year.—Yours, etc.,
Burradene. A. T. BURRELL.

U.K. and U.S. Development

Dear Sir,—It is interesting, almost amusing, to read what the London writer says about the Radio Fairs in London and New York ("W.W." 8/11/29). The writer infers that England is ahead of U.S.A. in screen-grid construction, also that radio sets were getting smaller, but by studying the American catalogues this year, one sees 8-valve screen-grid supers. Why, then, the inference? It looks one-sided to me.

When I look at the recent photos of English radio, and then at Mr. K. L. Williams' log, I would favor the Americans. I would like to hear someone else's views on the subject, and also take this opportunity on congratulating Mr. Williams on his feat.
Yours, etc.,
FAIR GO AUSSIE.

Pascoe Vale, Vic.

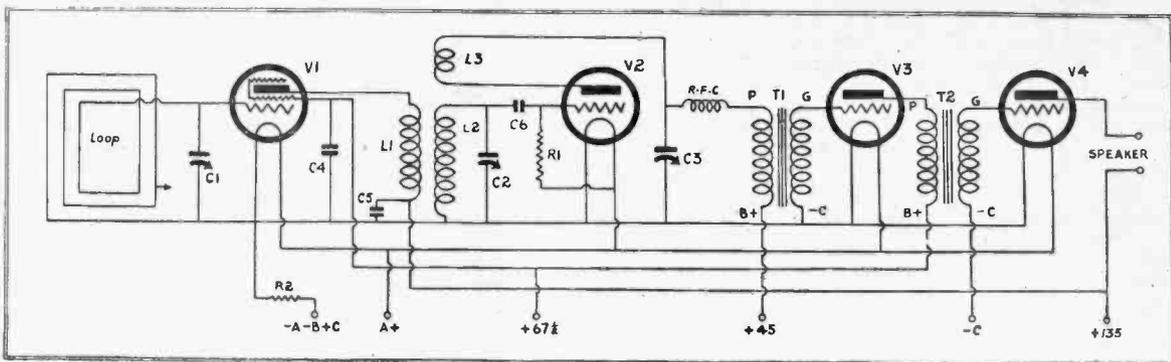
K-ZEE-R-M

Dear Sir,—You seem to receive such a mean bunch of complaints every mail that it gives me the greatest pleasure to pen an appreciation, offer a suggestion, and, maybe, give a little help in clearing up the KZRM, Manila, mystery. I take it none of your listeners ever went to school in U.S.A. If they did they would have learned to start A.B.C., etc., in the usual way, but finishing up X, Y Zee—not X, Y, Zed, as it is pronounced here. Manila is the capital city of an American Territory, and they learn the alphabet in the American way—now does that suggest anything about that call sign?

I wish some of your correspondents could hear 2FC as she roars in at Camberwell. I use a Superhet, with plate bend detection and feed it into a Ferranti push-pull amplifier with PX 650's, been using it for a year now, with radio and a B.T.H. pick-up, and the feeling of wonder and amazement I experienced when I first turned it on has not worn off yet. That "Wireless Weekly" published this amplifier only goes to confirm my opinion of the paper and the information contained therein.

Yours, etc. N. S. KEY.

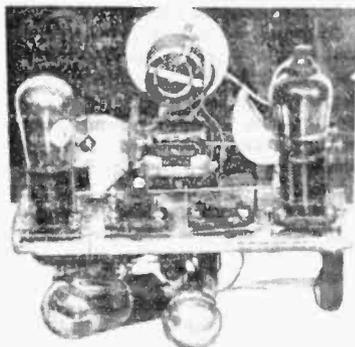
Melbourne.



The circuit diagram.

diameter. Any former of similar size would do. The 60 turns are wound in a criss-cross manner, and when the coil is complete it is pulled carefully off the former, and the turns are held together with a few spots of quick-drying glue.

The coil L2 is the secondary. It is wound on a bakelite or cardboard tube 1 1/2 in. in diameter and 2 in. long. The winding is 75



Back-panel view of set removed from frame. Note coil uncovered.

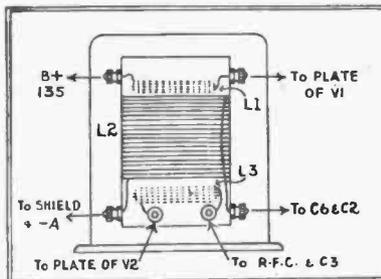
turns of 24-gauge d.s.c. wire. The reaction coil, L3, is next made up in the same manner as L1. It consists of 30 turns of 30-gauge wire (or finer), wound in a hank one inch in diameter. I will discuss the mounting of the coils later on.

The second valve, of course, is the detector. It is provided with the usual grid condenser and leak, though the leak runs to the positive filament lead, and is not connected across the grid condenser, as is more usual. The reaction condenser, C3, is a midget of 23 plates. It is controlled by the knob, to be seen in the very centre of the panel. The radio-frequency choke and the connections to the first audio transformer are quite normal, as can be seen from the diagram. The third valve, V3, is the first audio amplifier, and should really have an external bias battery. However, to avoid complications, its grid return is taken to the negative filament

lead, where it gets sufficient bias to permit satisfactory operation at the 67 1/2-plate volts. The second audio is provided with bias in the manner indicated, and its plate circuit is connected to the speaker with a pair of flexible leads. In general, an attempt has been made to avoid anything freakish in the way of circuits, and to simplify connections and battery leads wherever possible.

The valves used in the set comprise an Osram S410 for the r.f. valve; two D.E.L. 410's for the detector and first audio, and a D.E.P. 410 for the output amplifier. Since these valves each take a filament current of .1 ampere, the total drain is .4 amperes. This is rather high for dry cells, though it does permit them to be used for short periods. Three dry cells are shown in the photograph, but since that was taken I have bought a small 4-volt accumulator, which takes up less room, and which makes a much more satisfactory supply. As a matter of fact, we probably will have a car by the time we go on the proposed trip, and I plan to run the filament from the 6-volt car battery. For this work I plan to fit the same type of

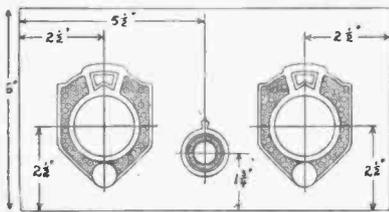
to it across the rear edge. These are the only items which are attached to the upper surface of the base. The next job is to prepare the panel. My panel is made of bakelite, and has the dimensions shown in the sketch. Before mounting this panel to the base with three wood screws, the midget reaction condenser and the two tuning condensers are mounted in place. Two Formo .0005 mfd. variable condensers are used in my receiver, but there is no particular reason why some other type should not be used, providing they will fit into the space provided. At this stage the coil unit can be wound according to the dimensions given previously. When the coils are completed, the primary may be mounted inside the secondary and at the grid end. To do this a small stick of wood is cut to fit across the inside of the former on which the secondary is wound. This stick is glued across the inside of the former at about the point where the secondary winding starts. When the glue is dry, the primary is glued to the stick. The same procedure is repeated in the case of the reaction coil, which is mounted at the filament end of the grid coil or secondary. Five terminals are provided on the former, and the leads from the various coils are connected to them. They can be made up from short machine screws and nuts with a soldering lug under the head of each. The filament end of the secondary is connected to a small metal angle, which acts as the support for the coil. The coil is shielded by means of a small aluminium mug of the type which can be bought for a few pence almost anywhere. The mug I used is about 3 in. in diameter and the same in height. The end of this shield is formed by an aluminium disc slightly larger than the opening of the mug. This disc is supported to the panel by the same machine screw that holds the angle bracket of the coil-former. The rim of the mug is cut or filed away, so that the two leads of L3, the grid lead of L2, and the "B" lead of L1, may pass between it and the disc on the panel. These leads are all made of rubber-covered flexible. The plate lead to



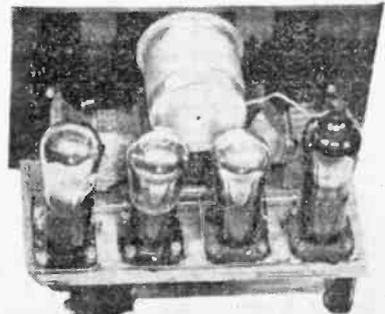
Coil detail.

valves, but in the 6-volt range. The plate-supply consists of three of the smallest size 45-volt "B" batteries that I could obtain. The set could be operated from 90 volts—with the screen grid and the first audio voltage at 45—but the results would not be quite the same. The bias battery consists of two flash-lamp batteries (the flat 4 1/2-volt type) in series.

In building the receiver it is first desirable to make the set proper, and get it running well on the bench before assembling it in the case. The first work is to prepare a baseboard just wide enough to fit in between the wooden sides of the frame inside the case, and just deep enough to make the panel come flush with the front edges of the frame. In my receiver the base measures 10 in. by 4 1/2 in., and is made of five-ply wood. As is shown in the photographs, some of the apparatus is mounted above this base, and some below it. When the base has been prepared, the four valve sockets can be screwed



Front-panel template details.

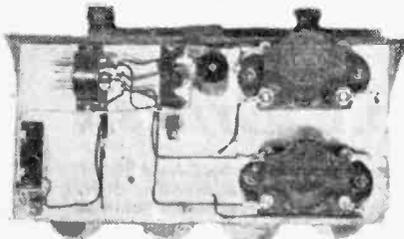


Another back-panel view with can over coil.

V1 is run through a hole in the side of the mug near to that valve. The mug itself is held over the coil by two machine screws, which pass through the rim and through the panel. The construction of the coil unit and the shield sounds complicated, but in reality it is very simple indeed.

Before the panel has been screwed to the base it will be well to mount the condensers, transformers, and battery terminals on the under-side of the base. The locations of these units are shown in the lay-out sketch. In my receiver I used a battery plug and socket, instead of terminals, but there is no reason why either of them should be used. Flexible leads could be run from the various points on the set direct to the terminals on the batteries, without any sacrifice of performance resulting. With all the components in position, the wiring may be started. It is a good plan to start on the filaments. One of the filament terminals on each socket is first connected to a lead running across the set. This is then connected by a lead running through the base to the negative terminal of the battery plug. In the diagram a resistance, R2, is shown in the negative lead. This is not essential, but it is desirable. It is an Amperite or ballast resistor, suited for carrying about .4 amperes. A one-ohm resistor could be used instead. The positive filament terminals are connected up in the same manner, and carried to their terminal. The wire used in this set was the flexible type of Celescite. This is better than the solid type in a portable set, where considerable vibration must be tolerated. The solid wiring is much more likely to come off at the joints than the flexible type, and, further, the flexible type permits joints to be twisted together or bent over much more easily than the solid.

The leads which come through the side of the shielding mug are, of course, of rubber-covered flexible, which is less likely to chafe through and cause a short. The important leads in the receiver are the grid lead to V1, the plate lead from V1, and the grid lead to V2. These should all be as short and direct as possible. The grid condenser is

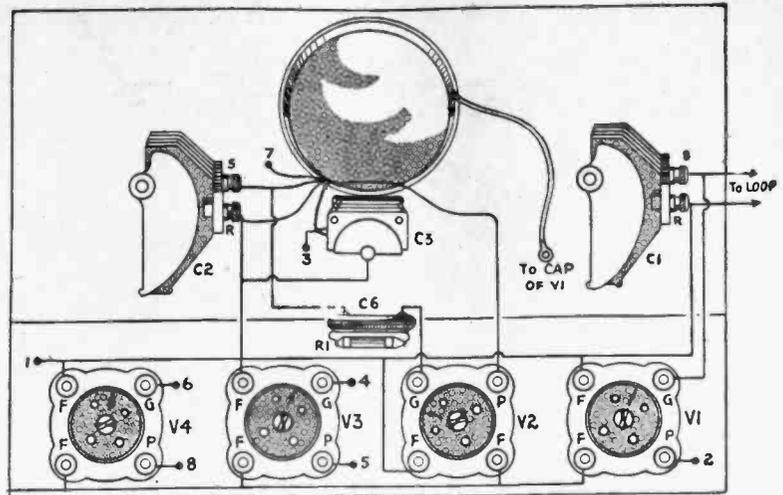


Plan view of baseboard—compare with drawing below

mounted on solid wires (just a fraction of an inch long), between the stator terminal of C2 and the grid terminal on the socket of V2. The wiring under the base can be seen in the illustrations. It is quite crudely done, and there is no necessity for any very great care as to the length of wires. Of course, they should be as short and direct as possible.

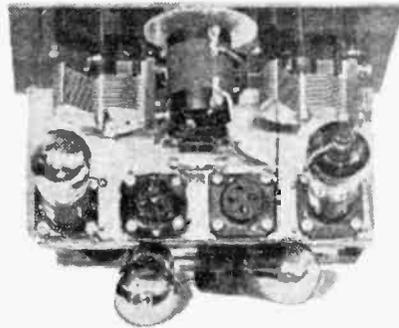
At this stage the construction of the loop can be undertaken. In my receiver it is fitted on the wooden form on which the lid of the case was built. This frame consists of wooden strips about one inch wide, running around the inside of the lid.

The idea is first to cut out four narrow strips of wood or bakelite about one inch long, and drill holes near the end of each. These are screwed to the wooden frame of the lid near the corners, and the wire of the loop is threaded under them. The loop-



Wiring lay-out of set.

winding consists of nine turns of bell wire in my set, but if the size of the case is altered it is probable that a slightly different number of turns will be necessary. A tap is taken at the first turn of the loop from the



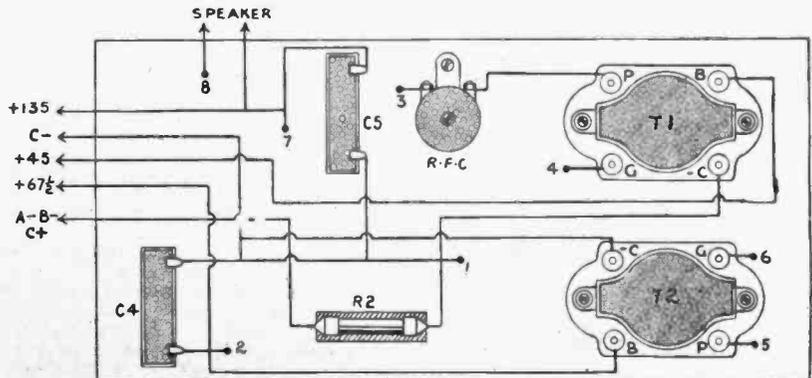
Plan view of back-panel—compare with above drawing

filament end, so that an outside aerial could be connected at any time. This tap is shown with an arrow in the circuit diagram. In my own loop the turns are wound rather crudely, but it would possibly be an advantage to wind them carefully, separating the turns very slightly. When the turns are put in place and pulled up tight, the wood screws that hold the small bakelite strips may be tightened up.

The speaker is the next item. Mine was built up from a splendid magnetic type driv-

ing unit and cone obtained from the British General Electric Co. First, a piece of three-ply about four inches square was screwed to the surface of the lid to act as a foundation for the unit. Then the unit was mounted on this wooden surface, with screws through the two lugs on the unit. The cone was slightly too large to fit in the lid of the case, so it was trimmed down slightly. The edge of the cone rests on the surface of the lid, forming a sort of semi-floating arrangement, which works very well indeed. This speaker is connected to the output of the set with a pair of light, flexible leads, which run under the edge of the cone. When the case is closed the apex of the cone sits in between the "A" and "B" batteries. To prevent it from being damaged, the batteries are held in place by wire bands, which are attached to wood screws in the wooden frame inside the walls of the case.

In operation, the receiver is surprisingly selective, and care must be taken when first locating the various stations. The only probable troubles are oscillation of the r.f. valve and an inability to tune the loop right to the top or down the bottom of the band. The oscillation will be avoided if the wiring and the shielding are carried out carefully, while the adjustment of the loop tuning is simply a matter of varying the number of turns. If the detector valve happens to be particularly "microphonic," a howl may be set up by vibration from the speaker. This trouble has not been found in my own receiver, but should it occur it probably could be avoided by wrapping some strips of cloth loosely around the detector valve.



Sub-panel wiring layout

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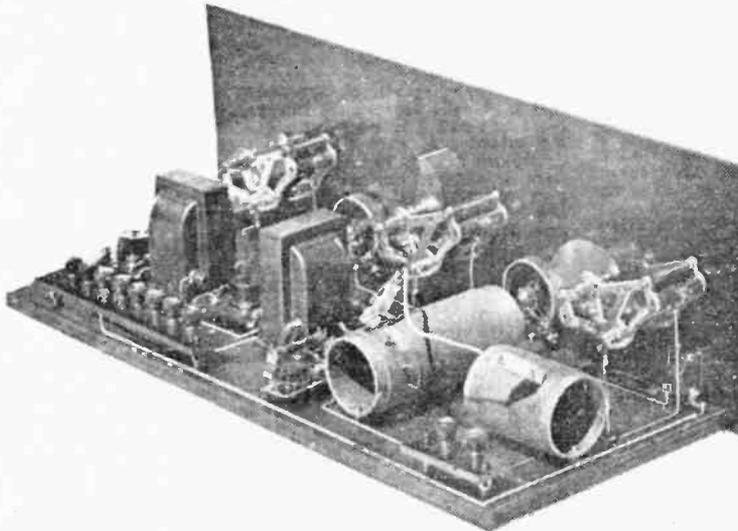
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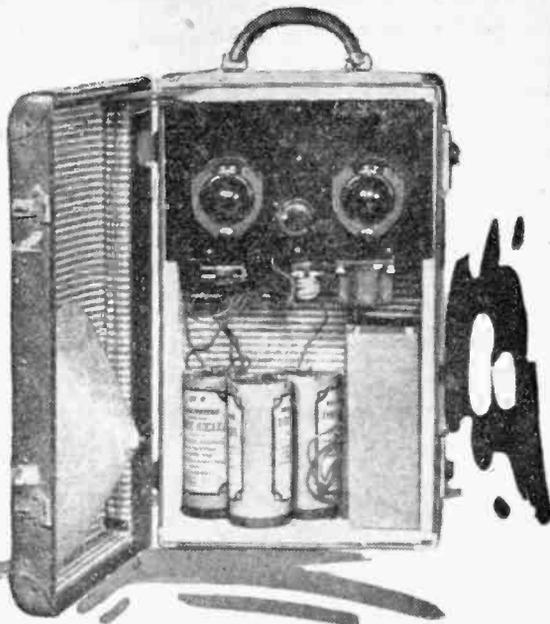
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The Screen Grid Portable



By JAMES LAMB

HAVING listened to broadcasting every night during the winter, and having decided to get away from the city and civilisation for a trip or a vacation during the summer, it is rather strange that enthusiasts should wish to cart along some more civilisation with them in the form of a radio receiver. And yet we certainly do.

About the first thing that comes into my mind when a trip to the hills, or a vacation down the coast is suggested, is a radio set. Long before we have decided upon the place to go to, or the manner of getting there, I have thoroughly thought out the radio gear that I am to take—the spare valves, the aerial wire, and all the junk that goes with them.

In the past I have had some very splendid times on vacations or on short trips, rigging up a set and DX hunting on the cool still nights, but the fun has been, to some extent, spoilt by the difficulty of carrying a clumsy set, half a dozen loose batteries, the speaker, the valves packed in boxes, and the usual tangle of battery and aerial wires.

This year I planned to build myself an entirely self-contained set. One that was fitted up in a case with a handle, so that it could be carried around with ease—a set that could be put into operation at a moment's notice without the necessity of hitching up batteries, or stringing an aerial. After much experimental work, I built myself the set illustrated in this article.

Splendid Performance

Though I have not yet taken it away on the much-looked-forward-to vacation, I anticipate from the result obtained around Sydney that it will be a thorough success. Using the loop aerial, the local stations can all be received at excellent strength, and most of them have to be detuned quite a lot in order to avoid overloading the speaker. The stations in other States have not yet been heard with the loop, but my experience with the greatly improved reception in the country districts leads me to think that I will have no difficulty in listening to 3LO, 4QG, and the others just as soon as we get well away from the city. The set is rather heavy, as any set with decent filament and plate sup-

ply must be, but it is light enough to be carried without any very special effort. Then, on account of the plate voltage provided, the reproduction is much better than the usual run of "portables" with 45 or 90 volts of "B," and the improvement, to my way of thinking, well justifies the added weight.

The basis of the receiver is a light and cheap fibre suit case. The usual difficulty with such a case is that the lid opens the wrong way, and that the aerial cannot be fitted in it effectively, since it would be flat on the table or ground when the set was in operation.

The Carrying-case

This trouble has been overcome by taking the handle off the side of the case and fitting it at the top. The case is then carried in a vertical position, with the set on top, and the batteries under it.

When the case is placed on the ground, the lid swings open to one side, and the aerial can then be moved to the position which gives best reception. The removal of the handle from its normal position just means the filing of four rivets. Fitting it in the new position could be accomplished with

rivets, but I preferred the simple way of using four short machine screws.

Of course, the case is of flimsy construction, and since there is no reinforcement in the ends (not in my particular one), it is desirable to make a wooden frame to fit inside the case. I made the frame from wood about one-half inch thick. It fits snugly around the four sides of the case, and the screws that hold the handle run through the top piece. The case used measures 20in. high, 12in. wide, and 6½in. deep. It is just big enough to hold the set, batteries, and speaker, without any spare room, and, for this reason, I would suggest that builders of the set buy a case that is slightly larger. The sizes of the panel are given in the drawing, but, obviously, these will have to be varied if the case is wider.

Let us deal first with the construction of the set itself. Essentially it consists of a four-valve affair, with one stage of screen-grid radio frequency amplification. The circuit is just about as straightforward and simple as it could possibly be. The loop in the lid of the case connects directly to the grid and filament, and the first tuning condenser of the r.f. valve. No external bias is supplied to this valve, since it operates quite well with the grid return made to the negative filament. The screen-grid of the r.f. valve is by-passed in the usual manner, and is fed from a tapping on the "B" battery.

THE PARTS USED

V1—Osram S.410, V2 and V3—Osram D.E.L. 410, V4—Osram D.E.P.410.
 C1, C2—Formo .0005 mfd. variable condensers.
 C3—23-plate Pilot midget variable condenser.
 C4, C5—.5 mfd. T.C.C. fixed condensers.
 C6—.00015 Sangamo fixed condenser.
 R1—2 megohm gridleak.
 R2—See text.
 Radiokes radio frequency choke.
 T1, T2—Two Philips audio frequency transformers.
 L1, L2, L3—Coil unit, see text.
 Four UX type valve sockets, Pilot.
 Baseboard and panel, shielding can, two small size Kurz-Kasch vernier dials, fibre case, wooden frame inside same, bell wire for loop aerial, British G.E. speaker unit and cone, and batteries.

Importance of Coils

The coil unit, L1, L2, L3, is a very important component of the receiver, and careful attention must be given to it. The primary winding connected to the plate of V1 is wound in a "hank," and placed inside the secondary L2. This hank method of winding may appear to be crude, but it is certainly most convenient and thoroughly effective. As Mr. Hull has pointed out so often in connection with the "1930 Super-Het.," the idea in hank winding is to put on the turns as clumsily as possible. L1 is wound with wire of about 34-gauge, which was pulled off an old radio-frequency choke. The actual size of the wire does not matter very much, so long as it is of 30-gauge or a little finer. The coil was wound on an old UX 199, which makes it about one inch in

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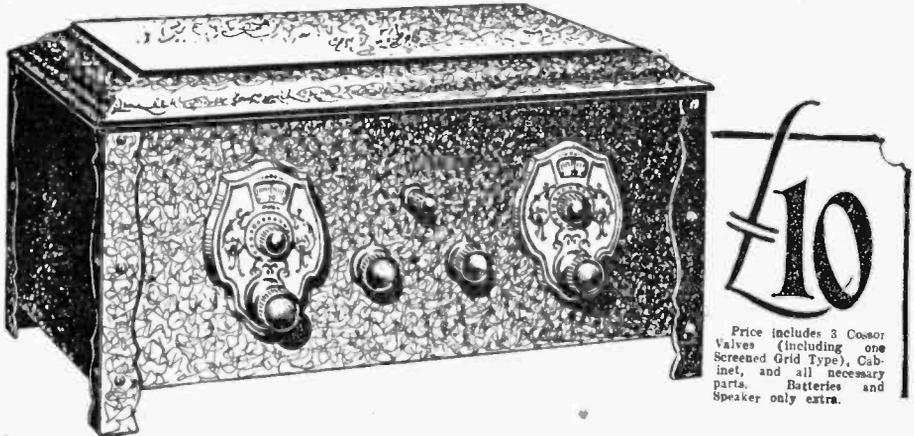
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Advances in Beat-Frequency Oscillators

DURING the last few years, the variable frequency oscillator for audio frequencies has become a very important piece of laboratory apparatus. By its aid, a practical study of the frequency characteristics of audio frequency transformers, of speakers, of detectors, and of complete receivers has been made possible.

Most enthusiasts are familiar at least with the frequency curves of audio frequency transformers, but few know much of the apparatus used to make their delineation possible. The type of oscillator now generally used for work of this sort is known as the "Beat-Frequency Oscillator." Much development work has been done on it in recent years, and modern types not only have a constant sinusoidal output over their frequency range, but a calibration which is practically unchanged by variations in temperature and battery voltage.

In the "General Electric Review" for October, M. S. Mead, jun., discusses the fields of application, the principle of operation, and the design of oscillators of this type. "The beat-frequency oscillator," he states, "was first developed for use in connection with the art of recording and reproducing sound. It is now recognised that the fidelity of any system used for speech or music depends largely upon its ability to transmit all of the component frequencies equally well; and, therefore, the action of the system can be tested by using pure, or single-frequency tones supplied from a beat-frequency oscillator.

"For instance, a vacuum-tube amplifier is to be tested to determine how it amplifies the various frequencies throughout the audible range. A small signal is impressed across the grid of the first tube by means of the beat-frequency oscillator. This input voltage is maintained constant as the oscillator frequency is varied and the output voltage from the amplifier is read, using either thermocouple or vacuum-tube voltmeters. The graph of the ratio of output to input is called a frequency characteristic. The ideal usually sought for is that this characteristic be a straight line parallel to the abscissa. Aside from the sound recording and reproducing fields many uses for beat-frequency oscillators exist. Its calibrated scale covering the audio-frequency range makes the oscillator a convenient frequency standard. For instance, in calibrating quartz crystals, the crystal frequency is determined by measuring the frequency of the beat note between the crystal oscillator and the standard frequency which is available in steps of 10,000 cycles. In measurements of inductances, capacity, and power-factor by means of bridges there is needed a pure-tone-frequency source. Sometimes a measurement at 1000 cycles only is sufficient, but many times measurements are desired throughout the audio range. The oscillator is useful in calibrating various instruments, such as vacuum-tube voltmeters. It is also used in audio frequency transformer testing, and

Curves Ahead

more generally in tests on various kinds of transformer steel. Another application is in the adjustment and tests of resonant shunts which are to be placed in power lines to reduce certain prominent harmonics which interfere with telephone communication.

The beat-frequency oscillator makes use of two separate radio frequency oscillators, one of which operates at a fixed frequency, and the other at a variable frequency controlled by the operator. The difference in frequency between the two oscillators is made equal to the desired audio frequency, so that when the two radio frequency oscillator outputs are combined and fed into a detector, the phenomenon known as "beat" occurs.

"It is to be noted that the frequency variation necessary in the controlled radio oscillator is small relative to its maximum frequency. The frequency is controlled by a single variable condenser in shunt with a

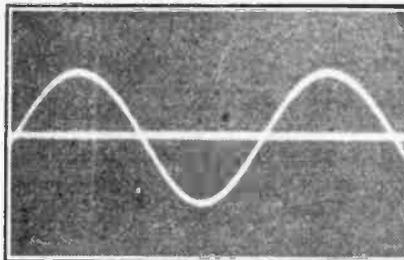
larger fixed condenser. For instance, with a fixed oscillator frequency of 100,000 cycles per second and a desired audio frequency of 50 to 10,000 cycles per second the controlled radio-frequency oscillator would have to be varied from 90,000 to 99,950 cycles per second or approximately 10 per cent. of its maximum frequency.

"Beat-frequency oscillators must meet several definite requirements in order to be of the greatest degree of usefulness. The output wave shape should be a pure sinusoidal function of time. The output voltage on a constant-impedance load should not vary over the frequency range. There should be a minimum of frequency drift with changes in temperature and battery voltage. Drift is understood to refer to slow changes in audio frequency, not produced by the operator, but due to changes in frequency of either radio-frequency oscillator. The control dial should permit accurate and convenient setting of the frequency. There should be no radio frequency present in the output circuit.

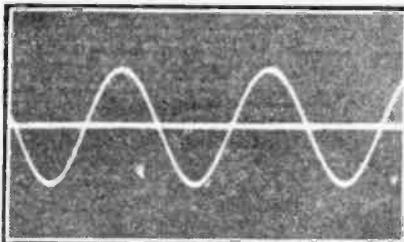
"Wave-shape distortion in beat-frequency oscillators may arise from several causes, including poor audio amplification, bad detection, and inter-coupling between the two radio-frequency oscillators. Poor audio-frequency amplification may introduce both odd and even harmonics. The odd-harmonic distortion usually comes from the transformers if they are not large enough to handle the audio voltages impressed on them. The even-harmonic distortion may be caused by not operating the tubes on the proper part of their characteristic, particularly the output stage. If the latter is push-pull, the even-harmonic distortion in it is, of course, largely eliminated. The best form of detection for beat-frequency oscillators seems to be that known commonly as bias or plate-curvature detection. If the detector tube is operated on the part of its curve where the plate current is proportional to the square of the input voltage, the result of impressing the two radio-frequency voltages on the grid will be a current flowing in the plate circuit proportional to the product of the two radio-frequency voltages and with a frequency equal to their frequency difference."

At this stage in his discussion, Mr. Mead proceeds to detail two particular oscillators which have been developed. One of these is of a portable type, and employs four valves from a common plate battery of 90 volts, and a dry-cell filament battery. The fixed oscillator is crystal controlled at a frequency of 100 kilocycles. In the second, and more elaborate oscillator, a total of twelve valves are used, four of which are high-powered output valves used in the output amplifier. A crystal controlled oscillator is, of course, again used. The complete article could well be studied closely by sincere students of modern radio technique.

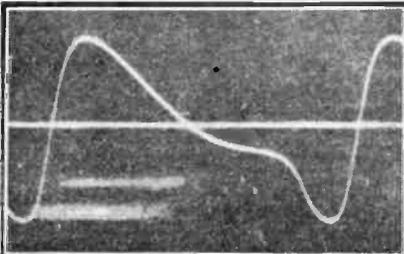
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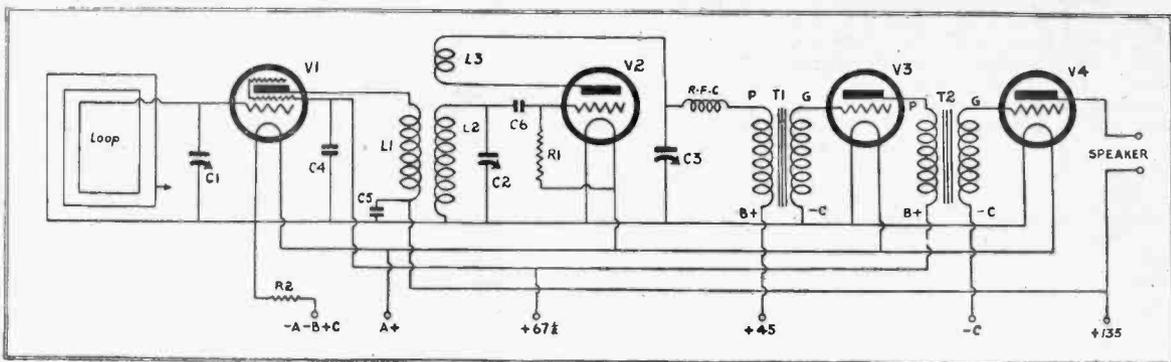
An oscillograph photograph of the output of the oscillator working at 50 cycles per second.



This again shows the beautiful wave-form—this time at 100 cycles.



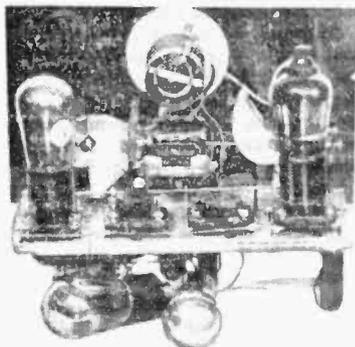
The wave-form in this case shows the type of distortion which results from improper detection.



The circuit diagram.

diameter. Any former of similar size would do. The 60 turns are wound in a criss-cross manner, and when the coil is complete it is pulled carefully off the former, and the turns are held together with a few spots of quick-drying glue.

The coil L2 is the secondary. It is wound on a bakelite or cardboard tube 1 1/2 in. in diameter and 2 1/2 in. long. The winding is 75



Back-panel view of set removed from frame. Note coil uncovered.

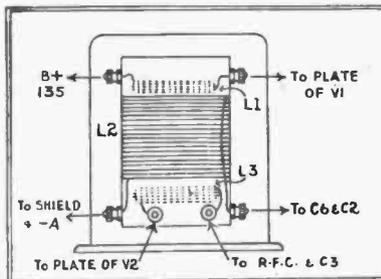
turns of 24-gauge d.s.c. wire. The reaction coil, L3, is next made up in the same manner as L1. It consists of 30 turns of 30-gauge wire (or finer), wound in a hank one inch in diameter. I will discuss the mounting of the coils later on.

The second valve, of course, is the detector. It is provided with the usual grid condenser and leak, though the leak runs to the positive filament lead, and is not connected across the grid condenser, as is more usual. The reaction condenser, C3, is a midget of 23 plates. It is controlled by the knob, to be seen in the very centre of the panel. The radio-frequency choke and the connections to the first audio transformer are quite normal, as can be seen from the diagram. The third valve, V3, is the first audio amplifier, and should really have an external bias battery. However, to avoid complications, its grid return is taken to the negative filament

lead, where it gets sufficient bias to permit satisfactory operation at the 67 1/2-plate volts. The second audio is provided with bias in the manner indicated, and its plate circuit is connected to the speaker with a pair of flexible leads. In general, an attempt has been made to avoid anything freakish in the way of circuits, and to simplify connections and battery leads wherever possible.

The valves used in the set comprise an Osram S410 for the r.f. valve; two D.E.L. 410's for the detector and first audio, and a D.E.P. 410 for the output amplifier. Since these valves each take a filament current of .1 ampere, the total drain is .4 amperes. This is rather high for dry cells, though it does permit them to be used for short periods. Three dry cells are shown in the photograph, but since that was taken I have bought a small 4-volt accumulator, which takes up less room, and which makes a much more satisfactory supply. As a matter of fact, we probably will have a car by the time we go on the proposed trip, and I plan to run the filament from the 6-volt car battery. For this work I plan to fit the same type of

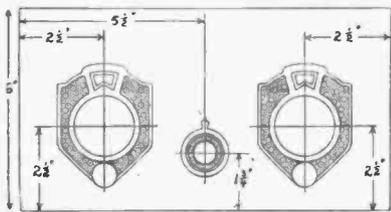
to it across the rear edge. These are the only items which are attached to the upper surface of the base. The next job is to prepare the panel. My panel is made of bakelite, and has the dimensions shown in the sketch. Before mounting this panel to the base with three wood screws, the midget reaction condenser and the two tuning condensers are mounted in place. Two Formo .0005 mfd. variable condensers are used in my receiver, but there is no particular reason why some other type should not be used, providing they will fit into the space provided. At this stage the coil unit can be wound according to the dimensions given previously. When the coils are completed, the primary may be mounted inside the secondary and at the grid end. To do this a small stick of wood is cut to fit across the inside of the former on which the secondary is wound. This stick is glued across the inside of the former at about the point where the secondary winding starts. When the glue is dry, the primary is glued to the stick. The same procedure is repeated in the case of the reaction coil, which is mounted at the filament end of the grid coil or secondary. Five terminals are provided on the former, and the leads from the various coils are connected to them. They can be made up from short machine screws and nuts with a soldering lug under the head of each. The filament end of the secondary is connected to a small metal angle, which acts as the support for the coil. The coil is shielded by means of a small aluminium mug of the type which can be bought for a few pence almost anywhere. The mug I used is about 3 in. in diameter and the same in height. The end of this shield is formed by an aluminium disc slightly larger than the opening of the mug. This disc is supported to the panel by the same machine screw that holds the angle bracket of the coil-former. The rim of the mug is cut or filed away, so that the two leads of L3, the grid lead of L2, and the "B" lead of L1, may pass between it and the disc on the panel. These leads are all made of rubber-covered flexible. The plate lead to



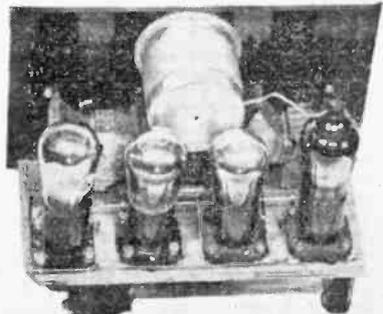
Coil detail.

valves, but in the 6-volt range. The plate-supply consists of three of the smallest size 45-volt "B" batteries that I could obtain. The set could be operated from 90 volts—with the screen grid and the first audio voltage at 45—but the results would not be quite the same. The bias battery consists of two flash-lamp batteries (the flat 4 1/2-volt type) in series.

In building the receiver it is first desirable to make the set proper, and get it running well on the bench before assembling it in the case. The first work is to prepare a baseboard just wide enough to fit in between the wooden sides of the frame inside the case, and just deep enough to make the panel come flush with the front edges of the frame. In my receiver the base measures 10 in. by 4 1/2 in., and is made of five-ply wood. As is shown in the photographs, some of the apparatus is mounted above this base, and some below it. When the base has been prepared, the four valve sockets can be screwed



Front-panel template details.

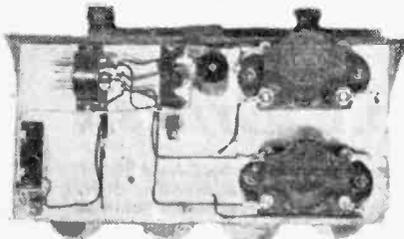


Another back-panel view with can over coil.

V1 is run through a hole in the side of the mug near to that valve. The mug itself is held over the coil by two machine screws, which pass through the rim and through the panel. The construction of the coil unit and the shield sounds complicated, but in reality it is very simple indeed.

Before the panel has been screwed to the base it will be well to mount the condensers, transformers, and battery terminals on the under-side of the base. The locations of these units are shown in the lay-out sketch. In my receiver I used a battery plug and socket, instead of terminals, but there is no reason why either of them should be used. Flexible leads could be run from the various points on the set direct to the terminals on the batteries, without any sacrifice of performance resulting. With all the components in position, the wiring may be started. It is a good plan to start on the filaments. One of the filament terminals on each socket is first connected to a lead running across the set. This is then connected by a lead running through the base to the negative terminal of the battery plug. In the diagram a resistance, R2, is shown in the negative lead. This is not essential, but it is desirable. It is an Amperite or ballast resistor, suited for carrying about .4 amperes. A one-ohm resistor could be used instead. The positive filament terminals are connected up in the same manner, and carried to their terminal. The wire used in this set was the flexible type of Celescite. This is better than the solid type in a portable set, where considerable vibration must be tolerated. The solid wiring is much more likely to come off at the joints than the flexible type, and, further, the flexible type permits joints to be twisted together or bent over much more easily than the solid.

The leads which come through the side of the shielding mug are, of course, of rubber-covered flexible, which is less likely to chafe through and cause a short. The important leads in the receiver are the grid lead to V1, the plate lead from V1, and the grid lead to V2. These should all be as short and direct as possible. The grid condenser is

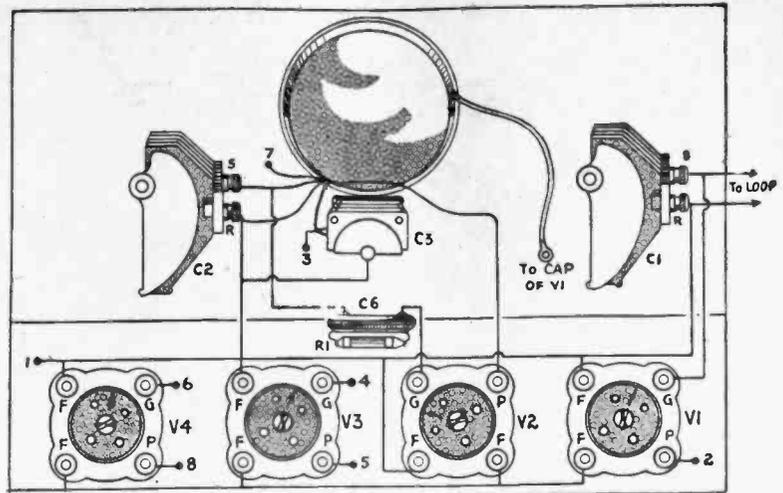


Plan view of baseboard—compare with drawing below

mounted on solid wires (just a fraction of an inch long), between the stator terminal of C2 and the grid terminal on the socket of V2. The wiring under the base can be seen in the illustrations. It is quite crudely done, and there is no necessity for any very great care as to the length of wires. Of course, they should be as short and direct as possible.

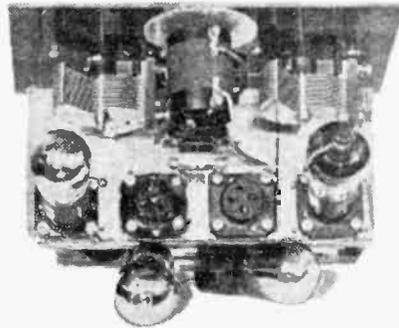
At this stage the construction of the loop can be undertaken. In my receiver it is fitted on the wooden form on which the lid of the case was built. This frame consists of wooden strips about one inch wide, running around the inside of the lid.

The idea is first to cut out four narrow strips of wood or bakelite about one inch long, and drill holes near the end of each. These are screwed to the wooden frame of the lid near the corners, and the wire of the loop is threaded under them. The loop-



Wiring lay-out of set.

winding consists of nine turns of bell wire in my set, but if the size of the case is altered it is probable that a slightly different number of turns will be necessary. A tap is taken at the first turn of the loop from the



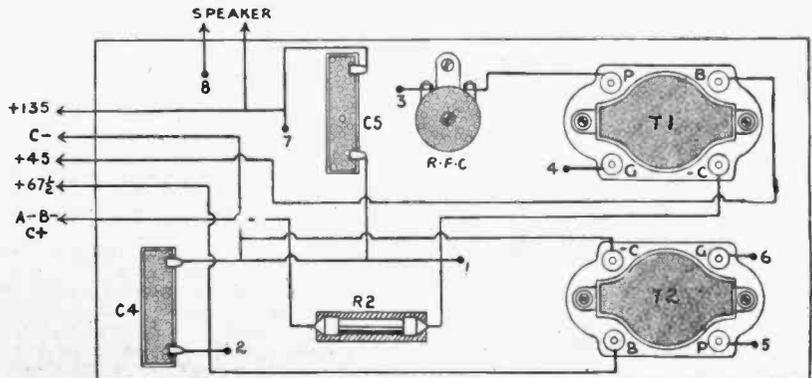
Plan view of back-panel—compare with above drawing

filament end, so that an outside aerial could be connected at any time. This tap is shown with an arrow in the circuit diagram. In my own loop the turns are wound rather crudely, but it would possibly be an advantage to wind them carefully, separating the turns very slightly. When the turns are put in place and pulled up tight, the wood screws that hold the small bakelite strips may be tightened up.

The speaker is the next item. Mine was built up from a splendid magnetic type driv-

ing unit and cone obtained from the British General Electric Co. First, a piece of three-ply about four inches square was screwed to the surface of the lid to act as a foundation for the unit. Then the unit was mounted on this wooden surface, with screws through the two lugs on the unit. The cone was slightly too large to fit in the lid of the case, so it was trimmed down slightly. The edge of the cone rests on the surface of the lid, forming a sort of semi-floating arrangement, which works very well indeed. This speaker is connected to the output of the set with a pair of light, flexible leads, which run under the edge of the cone. When the case is closed the apex of the cone sits in between the "A" and "B" batteries. To prevent it from being damaged, the batteries are held in place by wire bands, which are attached to wood screws in the wooden frame inside the walls of the case.

In operation, the receiver is surprisingly selective, and care must be taken when first locating the various stations. The only probable troubles are oscillation of the r.f. valve and an inability to tune the loop right to the top or down the bottom of the band. The oscillation will be avoided if the wiring and the shielding are carried out carefully, while the adjustment of the loop tuning is simply a matter of varying the number of turns. If the detector valve happens to be particularly "microphonic," a howl may be set up by vibration from the speaker. This trouble has not been found in my own receiver, but should it occur it probably could be avoided by wrapping some strips of cloth loosely around the detector valve.



Sub-panel wiring layout

Champion

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Champion Radio Valve UX-226

A.C. Amplifier

The Champion UX-226 is designed for use either as a radio or audio frequency amplifier. It employs a heavy filament of the oxide coated type designed for operation on low voltage alternating current. The electrical characteristics are similar to those of the Champion 201-A, except that the Champion UX-226 is not generally suitable for use as a detector.

Champion Radio Valve UY-227

A.C. Detector

The Champion UY-227 differs from a general purpose valve in that it has a heater element instead of a filament. Emission in a valve is caused by heating the surface of the filament which is heated so as to emit electrons. In the Champion UY-227 the emitting surface is separated from the heating wire by a piece of insulating material. This does away with the hum which would be heard if a general purpose valve were lighted with alternating current. In order to get a separate electrical connection to the cathode, or emitting surface, an extra prong is necessary in the base.

Champion Radio Valve UX-280

Full Wave Rectifier

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Radio Proficiency

We Compete the Discussion on Transmitters

AS has been previously mentioned, valves can be used as rectifiers. The same points that were emphasised in discussing valve rectification of a.c. for receivers, etc., will apply in the case of transmitters, the only difference being that higher power has to be handled.

It is possible to use two valves in a transmitter supplying a.c. direct. The valves are placed in parallel, and this type is called a "self-rectifying" transmitter.

In this type it is not necessary to use a filter. The valves being placed in parallel give full wave rectification. The theory is exactly the same as that for the full-wave electrolytic rectifier. The plate of each valve is supplied with a.c. from the power transformer. When, say, valve No. 1 is receiving positive potential, the other will be negative. Therefore, the circuit will oscillate with valve No. 1. When the current reverses the second valve will be included in the circuit, and no current will flow in the plate circuit of the first valve because it will be negative with respect to the filament, and the electrons will be repelled.

Self-rectified transmitters are usually a source of interference, since they usually give a very broad signal.

Transmitters which are directly coupled to the aerial are banned, since these also can be very broad. One often sees some old transmitting circuits with the oscillator directly coupled to the aerial. Unless you want the R.I. (Radio Inspector) and several thousand law-abiding hams on your track, keep off such circuits, or modify them to keep within the law.

Constant Frequency Important

In all transmitters it is important to keep the frequency as steady as possible. Therefore, a good filter and a steady power supply are almost as essential as the power itself. While the average arrangement gives a reasonably steady signal the addition of a master-oscillator valve with an oscillator circuit of its own will ensure a note that is steadier than usual. An even greater improvement is crystal control, a means whereby a quartz crystal is used to obtain stabilisation of frequency. More of crystal control later.

The master-oscillator circuit is so named because its output is used to control the frequency of the transmitter instead of using it to feed the aerial as well. The master-oscillator can be crystal-controlled or not. It can be used in any of the circuits mentioned in the "Amateur Proficiency" articles, since the principle is the same in all cases. The master-oscillator has an r.f. output, and briefly is used for controlling the grid circuit of an r.f. amplifier. However, one has to start with steady oscillation before the amplifier can handle a steady oscillation. Therefore, it is of greatest importance to build a steady oscillator.

The main advantage of a crystal-controlled transmitter is that the note is absolutely steady, and the pitch never varies or swings

due to movements of the aerial system or heating of the components. A crystal-controlled transmitter should be the aim of every genuine enthusiast, for it is the "last word" in transmitters.

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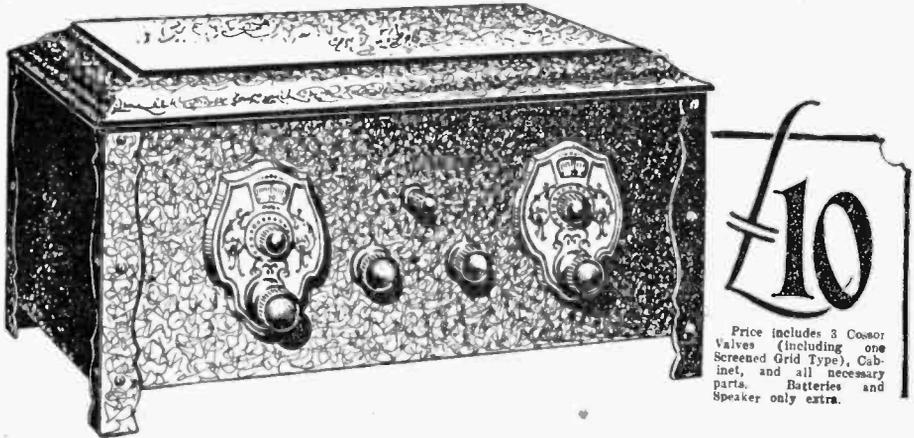
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Advances in Beat-Frequency Oscillators

DURING the last few years, the variable frequency oscillator for audio frequencies has become a very important piece of laboratory apparatus. By its aid, a practical study of the frequency characteristics of audio frequency transformers, of speakers, of detectors, and of complete receivers has been made possible.

Most enthusiasts are familiar at least with the frequency curves of audio frequency transformers, but few know much of the apparatus used to make their delineation possible. The type of oscillator now generally used for work of this sort is known as the "Beat-Frequency Oscillator." Much development work has been done on it in recent years, and modern types not only have a constant sinusoidal output over their frequency range, but a calibration which is practically unchanged by variations in temperature and battery voltage.

In the "General Electric Review" for October, M. S. Mead, jun., discusses the fields of application, the principle of operation, and the design of oscillators of this type. "The beat-frequency oscillator," he states, "was first developed for use in connection with the art of recording and reproducing sound. It is now recognised that the fidelity of any system used for speech or music depends largely upon its ability to transmit all of the component frequencies equally well; and, therefore, the action of the system can be tested by using pure, or single-frequency tones supplied from a beat-frequency oscillator.

"For instance, a vacuum-tube amplifier is to be tested to determine how it amplifies the various frequencies throughout the audible range. A small signal is impressed across the grid of the first tube by means of the beat-frequency oscillator. This input voltage is maintained constant as the oscillator frequency is varied and the output voltage from the amplifier is read, using either thermocouple or vacuum-tube voltmeters. The graph of the ratio of output to input is called a frequency characteristic. The ideal usually sought for is that this characteristic be a straight line parallel to the abscissa. Aside from the sound recording and reproducing fields many uses for beat-frequency oscillators exist. Its calibrated scale covering the audio-frequency range makes the oscillator a convenient frequency standard. For instance, in calibrating quartz crystals, the crystal frequency is determined by measuring the frequency of the beat note between the crystal oscillator and the standard frequency which is available in steps of 10,000 cycles. In measurements of inductances, capacity, and power-factor by means of bridges there is needed a pure-tone-frequency source. Sometimes a measurement at 1000 cycles only is sufficient, but many times measurements are desired throughout the audio range. The oscillator is useful in calibrating various instruments, such as vacuum-tube voltmeters. It is also used in audio frequency transformer testing, and

Curves Ahead

more generally in tests on various kinds of transformer steel. Another application is in the adjustment and tests of resonant shunts which are to be placed in power lines to reduce certain prominent harmonics which interfere with telephone communication.

The beat-frequency oscillator makes use of two separate radio frequency oscillators, one of which operates at a fixed frequency, and the other at a variable frequency controlled by the operator. The difference in frequency between the two oscillators is made equal to the desired audio frequency, so that when the two radio frequency oscillator outputs are combined and fed into a detector, the phenomenon known as "beat" occurs.

"It is to be noted that the frequency variation necessary in the controlled radio oscillator is small relative to its maximum frequency. The frequency is controlled by a single variable condenser in shunt with a

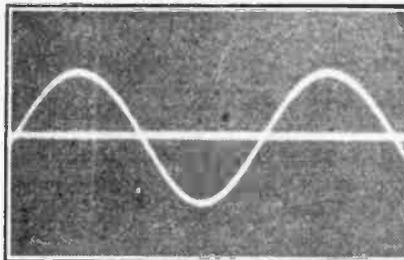
larger fixed condenser. For instance, with a fixed oscillator frequency of 100,000 cycles per second and a desired audio frequency of 50 to 10,000 cycles per second the controlled radio-frequency oscillator would have to be varied from 90,000 to 99,950 cycles per second or approximately 10 per cent. of its maximum frequency.

"Beat-frequency oscillators must meet several definite requirements in order to be of the greatest degree of usefulness. The output wave shape should be a pure sinusoidal function of time. The output voltage on a constant-impedance load should not vary over the frequency range. There should be a minimum of frequency drift with changes in temperature and battery voltage. Drift is understood to refer to slow changes in audio frequency, not produced by the operator, but due to changes in frequency of either radio-frequency oscillator. The control dial should permit accurate and convenient setting of the frequency. There should be no radio frequency present in the output circuit.

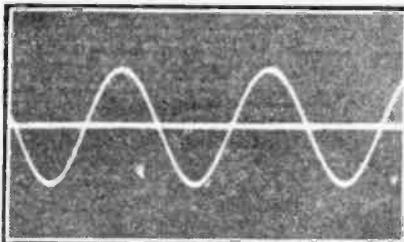
"Wave-shape distortion in beat-frequency oscillators may arise from several causes, including poor audio amplification, bad detection, and inter-coupling between the two radio-frequency oscillators. Poor audio-frequency amplification may introduce both odd and even harmonics. The odd-harmonic distortion usually comes from the transformers if they are not large enough to handle the audio voltages impressed on them. The even-harmonic distortion may be caused by not operating the tubes on the proper part of their characteristic, particularly the output stage. If the latter is push-pull, the even-harmonic distortion in it is, of course, largely eliminated. The best form of detection for beat-frequency oscillators seems to be that known commonly as bias or plate-curvature detection. If the detector tube is operated on the part of its curve where the plate current is proportional to the square of the input voltage, the result of impressing the two radio-frequency voltages on the grid will be a current flowing in the plate circuit proportional to the product of the two radio-frequency voltages and with a frequency equal to their frequency difference."

At this stage in his discussion, Mr. Mead proceeds to detail two particular oscillators which have been developed. One of these is of a portable type, and employs four valves from a common plate battery of 90 volts, and a dry-cell filament battery. The fixed oscillator is crystal controlled at a frequency of 100 kilocycles. In the second, and more elaborate oscillator, a total of twelve valves are used, four of which are high-powered output valves used in the output amplifier. A crystal controlled oscillator is, of course, again used. The complete article could well be studied closely by sincere students of modern radio technique.

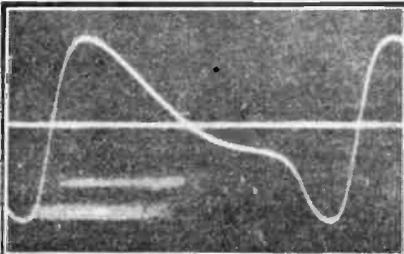
The
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Conducted by
Ross A. Hull,
M.I.R.E.



An oscillograph photograph of the output of the oscillator working at 50 cycles per second.

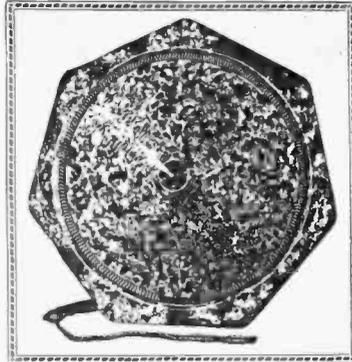


This again shows the beautiful wave-form—this time at 100 cycles.

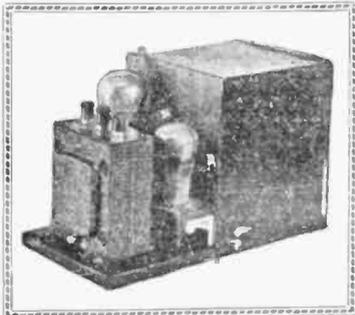


The wave-form in this case shows the type of distortion which results from improper detection.

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An Electric Power Unit For A Few Pence

The Hobbies Session

Conducted by Norman Lyons in conjunction with the Younger Set Sessions of the Australian Broadcasting Company.

IT is the ambition of every boy to possess a power unit to drive models. The lack of facilities need not deter you, for it is possible to construct a useful electric motor for a few pence, and with the aid of simple tools. This miniature electric motor, which is built up of odds and ends out of the junk box, runs at a rapid rate when connected up to a four-volt accumulator.

The materials required are:—

- 1 cotton reel.
- 1 strip of soft iron 3in. long, by 1/4in. wide, by 1-16in. thick.
- 2 strips of soft iron 2 1/2in. long, by 1/4in. by 1-16in.
- 1 knitting needle 2in. long, by approximately 3-32in. diameter (steel).
- 2 bearings. 1 9-16in., by 1/4in., by 1-16in. (brass).
- 8 yards No. 26 D.C.C. Copper wire.
- 1 wood base, 4in. by 2 1/2in. by 1/2in.
- 2 wood blocks, 1in., by 1/2in., by 1/2in.
- 2 1/2in. round-head brass screws.
- 4 1/4in. flat-head screws.
- 1 piece sheet brass 1/2in. by 1/2in. by 1-16in. (contact maker).

- 1 piece springing brass 1 1/2in. long by 1/4in. wide (contact spring).
- 2 terminals (screw type).

Now that we have the materials, we are ready to start. The armature body is made from the centre part of a cotton reel. That is, we cut off both flanges, see that the ends are perfectly square, otherwise the motor will not run steadily. When the ends have been sandpapered square, mark off both ends as shown in Figure 1, and file four flats 1/4in. wide at equal-distant intervals round the circumference. Take the strip of soft iron, and cut off four pieces 3/4in. long by 1/4in. wide by 1-16in. thick for the armature poles, and two pieces 2 1/2in. long by 1/4in. wide by 1-16in. thick for the electro magnets. Bend the latter pieces to a horseshoe shape as at A, Fig. 3, and drill two 1-16in. holes in each short piece as at B. These holes should be slightly countersunk on one side of each plate, to take the heads of small iron wire brads which fix the plates in position on the cotton reel.

For the armature shaft, cut off a 2in. length from an ordinary steel knitting needle about 3-32in. diameter. Plug the hole in the cotton reel with a round wooden rod, file the ends flush, and carefully drill a hole

through the centre a tight fit for the shaft. Press the latter in place so that one end projects 1/4in.

The bearing standards may be cut out of thin sheet brass to the dimensions given at C, Fig. 4, after drilling a hole in each for the armature spindle and two holes in the bottom parts as indicated. Bend the foot of each at right angles on the dotted line, and then screw them down on a baseboard which simply consists of a piece of wood 4in. long, 2 1/2in. wide, and 1/2in. thick. The spindle must, of course, be slipped through the bearings first, and the latter should be so adjusted that the armature revolves freely.

We can now proceed to wind the magnets, and for this purpose eight yards of No. 26 D.C.C. copper wire will be required, two yards being wound on each magnet limb, as in Fig. 2. After winding on each coil, tie a piece of strong thread round the last two or three turns to prevent the coil from coming unwound. Leave about 4in. of free wire on each coil for connecting-up purposes.

Two little blocks of wood 1in. by 1/2in. by 1/2in. will now be required for supporting the magnets, each of which is held in position by means of pieces of thin wood, and a 1/2in. round-headed screw, as indicated in the drawings. Each wooden block is fixed in position by two screws driven in from underneath the baseboard. Before finally clamping the magnets in position, see that the ends of the latter clear the armature plates by about 1-32in., when the spindle is revolved.

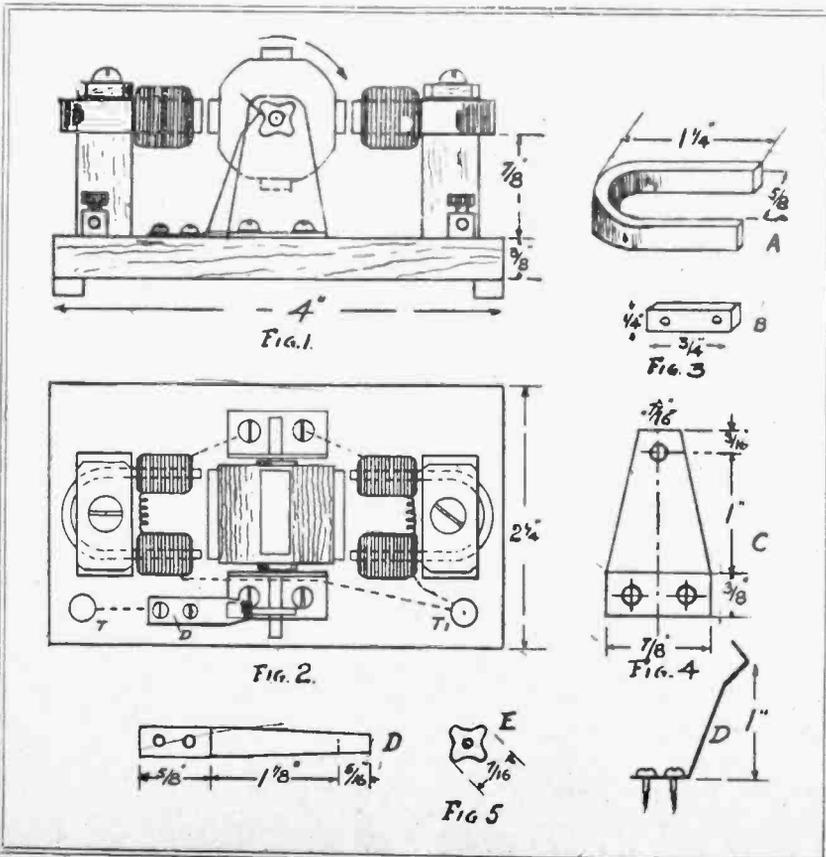
Now take a small piece of thin sheet brass and mark out the shape of the contact maker as shown at E, Fig. 5. Drill a hole in the centre a tight fit on the armature spindle and file the piece of brass to shape with a round-section file. Carefully round off the four corners and slip the part on to the spindle 1/4in. from the longer projecting end.

The contact spring D should be cut out of a piece of thin, springy brass, and after bending to shape it can be screwed down to the baseboard so that the points of the contact maker when revolving press lightly against it.

After screwing two terminals into the baseboard, the connections can be made. One wire from each magnet is taken to the terminal T1, and the other wires from the magnets are clamped under the heads of the fixing screws on one of the bearing plates. A short piece of wire connects the terminal T and one of the screws on the contact spring D.

The little motor can now be connected up to the battery, and the contact maker adjusted so that contact is made just as two armature plates are approaching a horizontal position. Contact must be broken when the plates come opposite the ends of the magnets. When the position of the contact maker has been finally adjusted it can be lightly soldered to the spindle.

Apply a spot of oil where the spindle runs in the bearings and connect up the battery to the two terminals, then, on giving the armature a slight turn with the finger, the little motor should revolve at quite a rapid rate.



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Champion Radio Valve UX-226

A.C. Amplifier

The Champion UX-226 is designed for use either as a radio or audio frequency amplifier. It employs a heavy filament of the oxide coated type designed for operation on low voltage alternating current. The electrical characteristics are similar to those of the Champion 201-A, except that the Champion UX-226 is not generally suitable for use as a detector.

Champion Radio Valve UY-227

A.C. Detector

The Champion UY-227 differs from a general purpose valve in that it has a heater element instead of a filament. Emission in a valve is caused by heating the surface of the filament which is heated so as to emit electrons. In the Champion UY-227 the emitting surface is separated from the heating wire by a piece of insulating material. This does away with the hum which would be heard if a general purpose valve were lighted with alternating current. In order to get a separate electrical connection to the cathode, or emitting surface, an extra prong is necessary in the base.

Champion Radio Valve UX-280

Full Wave Rectifier

The Champion UX-280 is a full wave thermionic Rectifier. This valve is evacuated to a very high degree, and has many advantages over the gaseous conduction type of rectifier.

A very heavy oxide filament is used in the Champion 280, which will stand very severe treatment, and still continue to give unusually high emission.

The plates of the Champion UX-280 full wave rectifier are made of a wire mesh in order to facilitate the dissipation of heat.

Champion Radio Valve UX-171A

Power Amplifier and General Purpose Valve

Champion UX-171A is a Power Amplifier valve designed to give maximum undistorted output to the loud speaker. It should only be used in the last audio stage, with the proper grid and plate voltages applied.

A loud speaker coupling device is essential with the Champion UX-171A to keep direct current out of the loud speaker.

If used in the proper way the Champion UX-171A will give volume and clearness beyond comparison.

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Radio Proficiency

We Compete the Discussion on Transmitters

AS has been previously mentioned, valves can be used as rectifiers. The same points that were emphasised in discussing valve rectification of a.c. for receivers, etc., will apply in the case of transmitters, the only difference being that higher power has to be handled.

It is possible to use two valves in a transmitter supplying a.c. direct. The valves are placed in parallel, and this type is called a "self-rectifying" transmitter.

In this type it is not necessary to use a filter. The valves being placed in parallel give full wave rectification. The theory is exactly the same as that for the full-wave electrolytic rectifier. The plate of each valve is supplied with a.c. from the power transformer. When, say, valve No. 1 is receiving positive potential, the other will be negative. Therefore, the circuit will oscillate with valve No. 1. When the current reverses the second valve will be included in the circuit, and no current will flow in the plate circuit of the first valve because it will be negative with respect to the filament, and the electrons will be repelled.

Self-rectified transmitters are usually a source of interference, since they usually give a very broad signal.

Transmitters which are directly coupled to the aerial are banned, since these also can be very broad. One often sees some old transmitting circuits with the oscillator directly coupled to the aerial. Unless you want the R.I. (Radio Inspector) and several thousand law-abiding hams on your track, keep off such circuits, or modify them to keep within the law.

Constant Frequency Important

In all transmitters it is important to keep the frequency as steady as possible. Therefore, a good filter and a steady power supply are almost as essential as the power itself. While the average arrangement gives a reasonably steady signal the addition of a master-oscillator valve with an oscillator circuit of its own will ensure a note that is steadier than usual. An even greater improvement is crystal control, a means whereby a quartz crystal is used to obtain stabilisation of frequency. More of crystal control later.

The master-oscillator circuit is so named because its output is used to control the frequency of the transmitter instead of using it to feed the aerial as well. The master-oscillator can be crystal-controlled or not. It can be used in any of the circuits mentioned in the "Amateur Proficiency" articles, since the principle is the same in all cases. The master-oscillator has an r.f. output, and briefly is used for controlling the grid circuit of an r.f. amplifier. However, one has to start with steady oscillation before the amplifier can handle a steady oscillation. Therefore, it is of greatest importance to build a steady oscillator.

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Local Programmes, Friday, November 29

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and Meteorological information for the man on the land.
 7.3: This morning's news from the "Daily Guardian."
 7.8: Austradio Musical Reproduction.
 7.43: Mails and Shipping.
 7.46: What's on to-day?
 7.50: Children's Birthday Calls.
 8.0: Music from the Studio.
 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
 10.32: To-morrow's sporting Events, by Oscar Lind.
 10.40: HORACE WEBER at the GRAND ORGAN.
 11.0: HOUSEHOLD HELPS: Cooking, by Miss Ruth Furst.
 11.10: CABLES—(Copyright) A.P.A. and "Sun"—"Herald" News Service.
 11.15: MORNING DEVOTION.
 11.30: Austradio Musical Reproduction.
 11.53: British Official Wireless Press.
 12.0: "Eig Ben." Stock Exchange and Metal Quotations.
 12.5: CAPTAIN L. ROBERTS will speak on "Burma."
 12.20: Midday weather forecast and weather synopsis. Special produce market session for the man on the land supplied by the State Marketing Board.
 12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch Hour Music.
 2.0: Stock Exchange, second call.
 2.2: A Glance at the afternoon "News."
 2.7: POPULAR EDUCATION—MICHAEL SAWTELL will speak on "Native Customs and Faith Healings."
 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- FROM THE 1929 RADIO DISPLAY, AT THE STATE SHOPPING BLOCK.
 NOTE—Results from the Cricket Match England v. Queensland, played at Brisbane, will be broadcast as received.
 2.30: THE 2FC INSTRUMENTAL TRIO.
 2.42: MADAME PHYLLIS HOWE, Soprano—
 (a) "Butterfly Wings" (Phillips).
 (b) "Songs My Mother Taught Me" (Dvorak).
 2.49: THE H. W. VARNA STUDENTS FROM THE MACCUNN SCHOOL, in a Short Play entitled "The Traitor."
 3.4: THE 2FC INSTRUMENTAL TRIO.
 3.16: MADAME PHYLLIS HOWE, Soprano—
 (a) "The Stars" (Phillips).
 (b) "To Sing Awhile" (Lugmmond).
 3.22: THE 2FC INSTRUMENTAL TRIO.
 3.33: THE H. W. VARNA STUDENTS FROM THE MACCUNN SCHOOL, in a Short Play entitled "The Test Kiss."
 3.48: THE 2FC INSTRUMENTAL TRIO.
 4.0: "REDGUM" will give a talk on "Gardening."
 4.15: THE 2FC INSTRUMENTAL TRIO.
 4.28: Stock Exchange, third call.
 4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Good-night" Stories, told by the "Hello Man," assisted by the Farmyard Five.
 6.45: Dinner Hour Music.
 7.20: A.B.C. Sporting Service.
 7.25: Special Country Session. Stock Exchange Resume. Markets. Weather Forecast. Late news from the "Sun" and "News." Truck bookings.
 7.58: To-night's Programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- To-night, George Black will tell 2FC listeners of "Old Time Theatricals." There is Organ Music, Saxophone Solos, and Song Groups, and the Programme relayed from 3LO, Melbourne, at 9.15, will be anticipated with pleasure by many Listeners. Through 2BL smart patter by Peter and Priscilla, Song Groups. Popular Selections, Wallace Nelson

INDEX

To Local Programmes

Friday, November 29.	
2FC, 2BL	28
2GB, 2UW, 2KY, 2UE	29
Saturday, November 30.	
2FC, 2BL, 2GB, 2UW, 2KY, 2UE	32
Sunday, December 1.	
2FC, 2BL, 2GB, 2UW, 2KY, 2UE	36
Monday, December 2.	
2FC, 2BL	38
2GB, 2UW, 2KY, 2UE	39
Tuesday, December 3.	
2FC, 2BL	42
2GB, 2UW, 2KY, 2UE	43
Wednesday, December 4.	
2FC, 2BL, 2GB	46
2UW, 2KY, 2UE (same as Friday)	29
Thursday, December 5.	
2FC, 2BL, 2GB, 2UE	50

To Interstate Programmes

Friday, November 29.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	30
Saturday, November 30.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	34
Sunday, December 1.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	37
Monday, December 2.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	40
Tuesday, December 3.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	44
Wednesday, December 4.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	48
Thursday, December 5.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	52

will speak on "A Great Australian—Professor Wallace," and Claude Corbett's Sporting Talk will complete an interesting night's offering.

- 8.0: ERIC MASTERS, Baritone.
 8.7: FROM CHRIST CHURCH, ST. LAURENCE, Organ Recital, arranged by Christian Hellemann.
 8.22: FROM THE STUDIO—AL HAMMETT, Saxophonist—
 (a) "Valse Yvonne" (Weidof).
 (b) "Saxarella" (Weidof).
 8.29: ERIC MASTERS, Baritone.
 8.36: FROM CHRIST CHURCH, ST. LAURENCE—Organ Recital, arranged by Christian Hellemann.
 8.51: FROM THE STUDIO—AL HAMMETT, Saxophonist—
 (a) "Rubato" (Lak).
 (b) "Sax Scandals" (Dornberger).
 8.58: THE COUNTRY MAN'S WEATHER SESSION—
 (a) "New South Wales Forecasts."
 (b) "Inter-State Weather Synopsis."
 Yachtsman's and Fisherman's Forecast.
 9.0: GEORGE BLACK will tell of "Old Time Theatricals."
 9.15: RELAY FROM 3LO, MELBOURNE.
 10.0: ROMANO'S CAFE DANCE ORCHESTRA, conducted by Bennie Abrahams.
 10.15: FROM THE STUDIO—Announcements. Late Official Weather Forecast.
 10.20: ROMANO'S CAFE DANCE ORCHESTRA, conducted by Bennie Abrahams.
 11.30: CLOSE. National Anthem.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
 8.16: Music for every mood.
 8.40: Meteorological data for the country.
 8.45: Mails and shipping information.
 8.50: Memory melodies.
 9.0: This morning's story.
 9.30: A musical interlude.
 9.40: British Official Wireless Press.
 9.45: New music.

FROM THE RADIO DISPLAY—1929—AT THE STATE SHOPPING BLOCK.

- 10.5: News from the "Daily Guardian."
 10.10: Austradio musical reproduction.
 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.

- 11.0: G.P.O. chimes. Close down.
MIDDAY SESSION—12 noon to 2.30 p.m.
 12.0: G.P.O. chimes and announcements.
 12.2: A pianoforte recital.
 12.30: LUNCH MUSIC.
 1.0: Afternoon news from the "Evening News."
 1.5: Studio music.
 1.15: Women's interest talk. MRS. MEREDITH-ATKINSON will speak on "OXFORD."
 1.30: Austradio musical reproduction.
 2.0: J. KNIGHT BARNETT at the "Wurlitzer."
 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: MAJOR SANFORD MORGAN will speak on "Yapayuya."
 2.45: Austradio musical reproduction.
 3.0: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Syncopaters in dance music.
 FROM THE STUDIO—
 3.12: BASIL RYE, baritone.
 3.19: A DANCE NUMBER.
 3.22: FROM THE BALLROOM OF THE ORIENTAL. Sydney Simpson's Syncopaters in dance music.
 FROM THE STUDIO—
 3.32: WINIFRED BATCHELOR, soprano.
 (a) "Cradle Song" (Schubert).
 (b) "A Slumber Song" (Hart).
 (c) "Lullaby" (Cyril Scott).
 3.39: MELODY MEMORIES.
 3.45: THE "STORYTELLER" will speak on "A New Chronicle of Creamy Creek."
 4.0: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
 4.12: FROM THE STUDIO—BASIL RYE, baritone.
 4.19: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
 4.29: WINIFRED BATCHELOR, soprano.
 (a) "The Almond Tree" (Schumann).
 (b) "The Lotus Flower" (Schumann).
 (c) "Were I the Sunshine" (Chopin).
 4.36: Austradio musical reproduction.
 4.45: The Trade Hour—demonstration music.
 5.45: Weather information. Close down.
THE DINNER HOUR—6.15 to 7.55 p.m.
 6.15: DINNER QUARTET.
 6.45: THE GIRLS' RADIO CLUB, conducted by Miss Gwen Varley.
 7.5: The Country Man's Market Session. Wool, wheat, stock, farm produce, fruit, and vegetable markets.
 7.20: DINNER MUSIC.
 7.45: Austradio musical reproduction.
 7.55: What's on the air to-night?
TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.
 To-night 2BL has an entirely new feature, "Peter and Priscilla," in a snappy dialogue; orchestral music; two old favorites, Dorrie Ward and W. E. Lewis; Claude Corbett's sporting talk; and Wallace Nelson speaking on "A Great Australian Professor—GILBERT MURRAY," will complete our usual popular Friday night's entertainment.
 8.0: DORRIE WARD, soprano.
 (a) "Last Night" (Kjerulf).
 (b) "Hedge Roses" (Schubert).
 8.7: MURIEL LANG, cellist.
 "Sonata in E Minor" (Brahms).
 8.15: NATIONAL BROADCASTING ORCHESTRA (conducted by Horace Keats).
 (a) "Mosquito Ballet" (Cartilzon).
 (b) "Rose Marie" (Friml).
 8.30: W. E. LEWIS, baritone.
 (a) "Parted" (Tosti).
 (b) "Shipmates o' Mine" (Sanderson). (With Orchestral Accompaniment).
 8.37: MURIEL LANG, cellist.
 "Sur le Lac" (Godard).
 8.44: PETER and PRISCILLA, entertainers
 (a) "Impressions of Daily Life" (Cardon).
 8.54: THE NATIONAL BROADCASTING ORCHESTRA.
 "A Waltz Dream" (Strauss).
 9.6: DORRIE WARD, soprano.

- (a) "May in My Garden" (Haydn Wood).
- (b) "A Smile" (Landon Ronald).
- (c) "April's Here" (Landon Ronald).
- 9.13: WALLACE NELSON will speak on "A Great Australian Professor—GILBERT MURRAY."
- 9.28: Weather information for the man on the land.
- 9.30: PETER and PRISCILLA, entertainers. "Perfectly Matched" (Barnaby and Galatly), including, "Oh! You Have No Idea" (Doherty).
- 9.40: W. E. LEWIS, baritone.
 - (a) "When My Ships Come Sailing Home" (Dorel).
 - (b) "'Tis the Day" (Leoncavallo). (With Orchestral Accompaniment.)
- 9.47: CLAUDE CORBETT will give a sporting talk.
- 10.7: THE NATIONAL BROADCASTING ORCHESTRA.
 - (a) Suite. "Nautical Scenes" (Fletcher).
 - (b) "Snowflakes" (Bontelje).
- 10.25: Late news from the "Evening News" Late weather forecast.
- 10.30: NATIONAL ANTHEM. CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0: Music.
- 10.10: Happiness Talk by A. E. Bennett.
- 10.20: Music.
- 10.30: Women's Session by Mrs. W. J. Steizer.
- 11.30: Talk by Mrs. Jordan.
- 11.45: Close down.
- 2.0: Music.
- 2.5: Women's Radio Service by Mrs. Dorothy Jordan.
- 2.50: Movie Know All.
- 3.0: Music.
- 3.30: Close down.
- 5.15: Children's Session by Uncle George.
- 6.50: M.-G.-M. Radio Movie Club Session.
- 7.0: Music.
- 7.45: Feature Story.
- 8.0: SCHUBERT PROGRAMME, Miss Gwen Selva, soprano.

- 8.7: Symphony Orchestra.
- 8.15: Madame Befts-Vincent in an illustrated talk on Schubert.
- 8.30: Mr. Clement Hosking, baritone.
- 8.37: Instrumental Quintette.
- 8.50: Miss Gwen Selva, soprano.
- 9.0: Weather report.
- 9.3: Mr. Jack Win and Mr. Heath Burdock, Humour.
- 9.8: Symphony Orchestra.
- 9.15: Miss Maesmore Morris, contralto.
- 9.25: Violin solos.
- 9.35: Mr. Clement Hosking, baritone.
- 9.45: Symphony Orchestra.
- 9.50: Miss Maesmore Morris, contralto.
- 10.0: Instrumental music.
- 10.30: Close.

2UW

Radio Broadcasting, Ltd., Pailing's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION

- 12.30: Request numbers.
- 1.0: Music.
- 1.15: Talk on Homecraft, by Pandora.
- 1.40: Music.
- 2.30: Close.
- 4.30: Musical programme.

EVENING SESSION

- 5.30: Children's hour, conducted by Uncle Jack.
- 6.30: Close.
- 7.0: Request numbers.
- 8.0: Recital of popular music.
- 9.0: Comments on Foreign Affairs by Mr. J. M. Prentice.
- 9.10: Music.
- 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

MORNING SESSION

- 10.0: Tune in to the ticking of the clock.
- 10.3: Popular Fox Trots.
- 10.15: Calls and announcements.
- 10.30: WOMEN'S SESSION. Home hints and information, MRS. GRAY.
- 11.0: A few laughs.
- 11.5: Pianoforte selections.

- 11.15: Calls and announcements.
- 11.20: Musical interlude.
- 11.30: Request numbers.
- 11.40: Music and vocal items.
- 11.55: Where to go to-night.
- 12.0: Closing announcements.

CHILDREN'S SESSION

6 p.m.: Birthday calls, request numbers, and Kiddies' Entertainment. AUNT JEMIMA AND UNCLE BERT.

EVENING SESSION

- 7.0: Musical interlude.
- 7.5: Birthday calls.
- 7.15: SPORTING FEATURE. Turf topics. Review of candidates and their prospects for to-morrow. MR. GEO. A. DAVIS.
- 7.40: Request numbers.
- 8.0: Hawaiian steel guitar selections.
- 8.10: Women's information service. MRS. GRAY.
- 8.30: Music and vocal items from the Studio.
- 9.10: SPORTING FEATURE from the ring-side of McHugh's Leichhardt Stadium. Full description of main 15-round event.
- 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION.

7.15: Breakfast Time Hour Orchestral Music. 8.0: Clock and Chimes. 8.1: Musical Items. 8.30: Close down.

MIDDAY SESSION.

10.0: Orchestral Music, and Women's Session conducted by Miss Dorothea Vautier. 11.30: Old Time Orchestral and Vocal Concert. 12.0: Close down.

AFTERNOON SESSION.

1.0: Orchestral and Vocal Items. 1.45: Organ Recital. 2.0: Close down.

EVENING SESSION.

6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Health Talk by Mr. T. Gordon Marsden. 7.25: Orchestral Dinner Selections. 7.55: Programme Announcements and news from the "Sun." 8.0: Clock and Chimes. 8.1: Overture. "11 Trovatore" Selections. 8.10: Vocal and Instrumental Items. 10.15: National Anthem.

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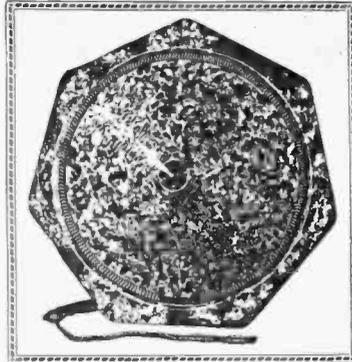
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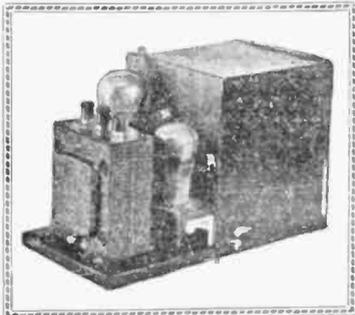
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An Electric Power Unit For A Few Pence

The Hobbies Session

Conducted by Norman Lyons in conjunction with the Younger Set Sessions of the Australian Broadcasting Company.

IT is the ambition of every boy to possess a power unit to drive models. The lack of facilities need not deter you, for it is possible to construct a useful electric motor for a few pence, and with the aid of simple tools. This miniature electric motor, which is built up of odds and ends out of the junk box, runs at a rapid rate when connected up to a four-volt accumulator.

The materials required are:—

- 1 cotton reel.
- 1 strip of soft iron 3in. long, by 1/4in. wide, by 1-16in. thick.
- 2 strips of soft iron 2 1/2in. long, by 1/4in. by 1-16in.
- 1 knitting needle 2in. long, by approximately 3-32in. diameter (steel).
- 2 bearings. 1 9-16in., by 1/4in., by 1-16in. (brass).
- 8 yards No. 26 D.C.C. Copper wire.
- 1 wood base, 4in. by 2 1/2in. by 1/2in.
- 2 wood blocks, 1in., by 1/2in., by 1/2in.
- 2 1/2in. round-head brass screws.
- 4 1/4in. flat-head screws.
- 1 piece sheet brass 1/2in., by 1/2in., by 1-16in. (contact maker).

- 1 piece springing brass 1 1/2in. long by 1/4in. wide (contact spring).
- 2 terminals (screw type).

Now that we have the materials, we are ready to start. The armature body is made from the centre part of a cotton reel. That is, we cut off both flanges, see that the ends are perfectly square, otherwise the motor will not run steadily. When the ends have been sandpapered square, mark off both ends as shown in Figure 1, and file four flats 1/4in. wide at equal-distant intervals round the circumference. Take the strip of soft iron, and cut off four pieces 3/4in. long by 1/4in. wide by 1-16in. thick for the armature poles, and two pieces 2 1/2in. long by 1/4in. wide by 1-16in. thick for the electro magnets. Bend the latter pieces to a horseshoe shape as at A, Fig. 3, and drill two 1-16in. holes in each short piece as at B. These holes should be slightly countersunk on one side of each plate, to take the heads of small iron wire brads which fix the plates in position on the cotton reel.

For the armature shaft, cut off a 2in. length from an ordinary steel knitting needle about 3-32in. diameter. Plug the hole in the cotton reel with a round wooden rod, file the ends flush, and carefully drill a hole

through the centre a tight fit for the shaft. Press the latter in place so that one end projects 1/4in.

The bearing standards may be cut out of thin sheet brass to the dimensions given at C, Fig. 4, after drilling a hole in each for the armature spindle and two holes in the bottom parts as indicated. Bend the foot of each at right angles on the dotted line, and then screw them down on a baseboard which simply consists of a piece of wood 4in. long, 2 1/2in. wide, and 1/2in. thick. The spindle must, of course, be slipped through the bearings first, and the latter should be so adjusted that the armature revolves freely.

We can now proceed to wind the magnets, and for this purpose eight yards of No. 26 D.C.C. copper wire will be required, two yards being wound on each magnet limb, as in Fig. 2. After winding on each coil, tie a piece of strong thread round the last two or three turns to prevent the coil from coming unwound. Leave about 4in. of free wire on each coil for connecting-up purposes.

Two little blocks of wood 1in. by 1/2in. by 1/2in. will now be required for supporting the magnets, each of which is held in position by means of pieces of thin wood, and a 1/2in. round-headed screw, as indicated in the drawings. Each wooden block is fixed in position by two screws driven in from underneath the baseboard. Before finally clamping the magnets in position, see that the ends of the latter clear the armature plates by about 1-32in., when the spindle is revolved.

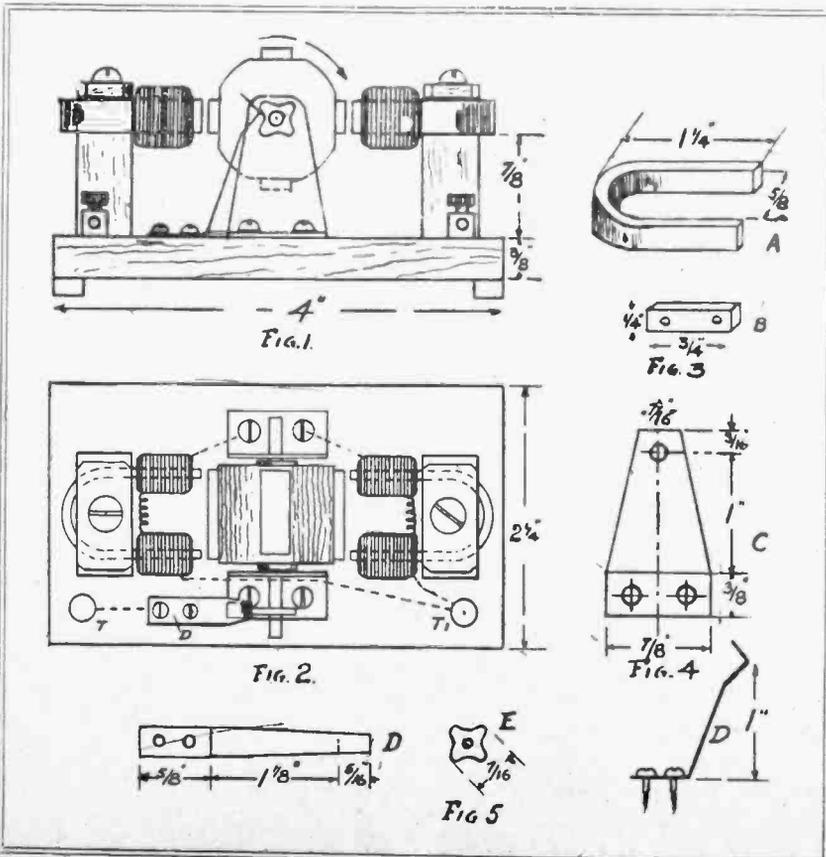
Now take a small piece of thin sheet brass and mark out the shape of the contact maker as shown at E, Fig. 5. Drill a hole in the centre a tight fit on the armature spindle and file the piece of brass to shape with a round-section file. Carefully round off the four corners and slip the part on to the spindle 1/4in. from the longer projecting end.

The contact spring D should be cut out of a piece of thin, springy brass, and after bending to shape it can be screwed down to the baseboard so that the points of the contact maker when revolving press lightly against it.

After screwing two terminals into the baseboard, the connections can be made. One wire from each magnet is taken to the terminal T1, and the other wires from the magnets are clamped under the heads of the fixing screws on one of the bearing plates. A short piece of wire connects the terminal T and one of the screws on the contact spring D.

The little motor can now be connected up to the battery, and the contact maker adjusted so that contact is made just as two armature plates are approaching a horizontal position. Contact must be broken when the plates come opposite the ends of the magnets. When the position of the contact maker has been finally adjusted it can be lightly soldered to the spindle.

Apply a spot of oil where the spindle runs in the bearings and connect up the battery to the two terminals, then, on giving the armature a slight turn with the finger, the little motor should revolve at quite a rapid rate.



Interstate Programmes, Friday, November 29

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0: Melbourne Observatory time signal. 7.1: Shipping news. 7.5: Physical exercises to music. 7.20: Reproduced music. 7.40: Mail notices. 7.42: What's On To-day? 7.45: Market reports. 7.53: Weather forecasts. 7.55: News and cables. 8.0: Melbourne Observatory time signal. 8.1: Arrival times of express trains. 8.4: Musical interlude. 8.15: Close down.

MORNING SESSION.

10.30: Current Happenings in Sport, by Mel. Morris. 10.45: Musical reproduction. 11.0: Fish Market Reports. 11.3: Musical reproduction. 11.30: Morning sales; Melbourne Stock Exchange; metal prices. 12.0: Melbourne Observatory time signal. 12.1: Musical reproduction. 12.15: News and cables; Corn Exchange midday report; Newmarket stock sales; Associated Stock and Station Agents' official report. 12.30: Close down.

MIDDAY SESSION.

1.0: Melbourne Observatory time signal. Stock Exchange information; meteorological information; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecasts; river reports; rainfall data. 1.15: Comments on the day's news. 1.30: Musical interlude.

EDUCATIONAL SESSION.

2.0: "The Races and Peoples of the World." Mr. H. J. G. Esmonde. 2.15: Musical interlude. 2.20: "Gems of English Literature—Lord Chesterfield's Letters." Professor G. H. Cowling, M.A. 2.35: Musical interlude. 2.40: A Talk in German, Mr. O. E. Green, M.A., Dip. Ed. 2.55: Musical interlude. 3.0: Melbourne Observatory time signal.

THE RADIO MATINEE.

3.0: The Studio Light Orchestra—Suite, "From the South" (Nicode). 3.10: George Cowley, baritone—"The Bland Monger" (Easthope Martin). "Lonely Pine" (Elliott). 3.17: Joyce Hamilton, piano recital—"Castanet" (Ketten). "Prelude in G Minor" (Pachulski). "Humoresque" from Miniature Suite (York-Bowen). "Amened" (Schumann). "Staccato Caprice" (Max Yotrich). 3.30: Nell Crane, "The Personality Singer" (The Bush Cinderella) (Lawrance). "I Want to Be Where the Girls Are" (Lawrance). 3.37: The Studio Light Orchestra—"Three Dances from Nell Gwynne" (German); song, "I Passed by Your Window" (Grahe) 3.47: "A Peaceful Evening" by Egbert Sirron, produced by Claude Carter. One-half, Claude Carter; The Better Half, Dorothy Leslie. 4.2: Bertha Jorgensen, violin—"Melody" (Luck-Kreiser). "Exchange" (arr. Kreiser). 4.8: Geo. Cowley, baritone—Selected. 4.15: Joseph Barnier, flute—"Scherzo" (Sabathel). 4.19: Nell Crane, "The Personality Singer—"I Was a Good Little Baby" (Lawrance). "The Candy Kid" child impersonation (Lawrance). 4.29: The Studio Light Orchestra—"Habenera," from "Natomia" (Herbert).

THE CHILDREN'S CORNER.

5.45: "Rolling Rites" and "Plain Peter."

EVENING SESSION.

6.35: Melody broadcast. 6.45: Swimming—Hints for the forthcoming season. Mr. Les Uren. 6.55: Musical interlude. 7.0: Melbourne Observatory time signal. 7.1: Countrymen's Session—Stock Exchange information; London exchange report; Associated Stock and Station Agents' official report; Wool Exchange report; mines and metals; fish and rabbit prices; farm and dairy produce report, supplied by the Interstate Dairy produce committee; wholesale fruit prices, supplied by the Wholesale Fruit Merchants' Association; retail fruit prices, supplied by the Victorian Fruitgrowers' Association; citrus fruit prices, supplied by the Victorian Central Citrus Association; winter sports reports; rainfall data. 7.25: Gardening Hints—Tuberous Begonias, Mr. W. R. Hawkins. 7.40: News and cables. 7.45: "The Romance of Ruins." Dr. E. Sweetman, M.A., Litt.D. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: Collingwood Citizens' Band (conductor, F. O. Johnson)—"March, 'Ivanhoe'" overture, "Vocaccio." 8.10: "The Five Loonies" in "A Trip to Northborough," a burlesque sketch specially written for radio, reminding us of Shakespeare's words: "I am rather have a fool to make me merry than experience to make me sad." 8.20: Collingwood Citizens' Band—Selected. 8.25: John Hopkins, Orations of Famous Men. 8.35: Collingwood Citizens' Band—Cornet solo. 8.48: Tom Semple, tenor—"The Curtain Falls" (Hardelt). "The Plumes of Arden," (Wm. James). 8.55: The Hilo Duo—Hawaiian entertainers. 9.5: Norman Bland and Partner, "Almost Gentlemen," will entertain. 9.15: Collingwood Citizens' Band—Selection, "Gems of Harmony." 9.23: The Melbourne Male Quartette—"Believe Me If All" (arr. Brewer). "A Marked Improvement" (arr. Chaffin). 9.31: Collingwood Citizens' Band—"Russian Cradle Song"; fox-trot, "When My Dreams Come True." 9.39: Violet Semple, contralto—"A Dream in the Twilight" (Strauss). "Cradle Song" (arr. Kreiser). 9.45: Collingwood Citizens' Band—Trombone solo. 9.49: Norman Bland and Partner, "Almost Gentlemen," will entertain. 9.55: The Hilo Duo—Hawaiian entertainers. 10.0: Tom Semple, tenor; Violet Semple, contralto—"O, Lovely Night" (Ronald). "Carmena" (Lane Wilson). 10.8: Collingwood Citizens' Band—Trombone Trio, selected. (Winners of W.A. Centenary Trombone Trio—March, "Ironclad."

10.15: Eric Welch will speak on "To-morrow's Races at Sandown Park." 10.25: British official wireless news; meteorological information; items of interest. 10.35: Paul Jaedic and his Band—Latest dance numbers. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION.

8.15: "Australio" musical reproduction. 8.45: Weather data. 9.0: O.P.O. chimes. 9.1: News and cables. 9.5: Musical reproduction. 10.0: Chimes. 10.1: British official wireless news. 10.10: Announcements. 10.30: Arnold Holman, at the Wiltzer. 10.50: The daily broadcast service. 11.0: Close down.

MIDDAY SESSION.

12.0: G.P.O. chimes. 12.1: Famous Women—Sarah Siddons, Miss Agnes St. Clair. 12.15: Fifteen minutes synopsis. 12.30: Luncheon music, supplied by the Studio Light Orchestra. 2.0: G.P.O. chimes.

AFTERNOON SESSION.

2.1: Orchestra, Brunswick Concert Orchestra. 2.8: Quartette, "The Music Art Singers" Quartette. 2.11: Violin, Hirschel Plastro. 2.19: Soprano, Edith Mason. 2.23: Band, Brunswick Military Band. 2.26: Comedienne, Bessie Brown. 2.29: Orchestral, Isham Jones' Orchestra. 2.32: Entertainers, Jones and Hare. 2.35: Band, Brunswick Military Band. 2.38: Quartette, the Music Art Singers Quartette. 2.47: Soprano, Edith Mason. 2.51: Orchestral, Brunswick Concert Orchestra. 2.54: Duet, Cook Sisters. 3.0: From the Kooyong Tennis Court, description of interstate tennis matches by Mr. A. W. Dunlop. 3.15: Musical reproduction. 3.40: Topical chatter, "The Flapper and Auntie." 3.45: Musical interlude. 4.0: A Woman's Wanderings through the Bush. 4.15: From the Kooyong Tennis Court, description of interstate tennis matches by Mr. A. W. Dunlop. 4.30: "Australio" musical reproduction. 5.0: Chimes. 5.1: From the Kooyong Tennis Court, description of interstate tennis matches by Mr. A. W. Dunlop. 5.15: Musical reproduction. 5.30: Weather. 5.45: Close.

EVENING SESSION.

6.15: Dinner music, supplied by Paul Jaedic and his Band. 7.30: What's on the air to-night? 7.32: Sporting results. 7.35: Road notes. 7.40: Latest musical releases. 8.0: O.P.O. chimes.

NIGHT SESSION.

8.1: A.I.F. Recollections in the Poll's shoes, Mr. C. Ellis. 8.15: Common Singing, transmission from Geelong, conductor, W. Sampson. 10.20: Weather and news. 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

EARLY MORNING SESSION.

1.30: News. 7.58: Time signals. 8.0: Records. 8.18: News. 8.30: Close.

MORNING SESSION.

11.0: Music. 11.5: Social news. 11.15: A cookery talk by The Etiquette Girl. 11.30: Music. 11.35: More social news. 11.45: Music. 12.0 (noon): Close down.

MIDDAY SESSION.

1.0: Market reports and weather information. 1.30: Lunch hour music. 2.0: Close down.

AFTERNOON SESSION.

3.0: A programme of electrically reproduced records. 3.30: Mail train running times. 3.5: From St. John's Cathedral, recital by Mr. George Sampson, F.R.C.O. (City Organist). 4.15: This afternoon's news. 4.30: Close down. 6.0: Mail train running times, mail information, shipping news; dinner music. 6.25: Commercial announcements. 6.30: Bedtime stories conducted by the "Sandman."

LATE COMMERCIAL NEWS.

7.0: News. 7.5: Stock Exchange. 7.6: Metal quotations. 7.7: Market reports. 7.25: Penwick's stock report. 7.30: Weather. 7.40: Announcements. 7.43: Time signals. 7.45: To-morrow's sporting fixtures reviewed.

NIGHT SESSION.

8.0: A programme of classic music conducted by Mr. George Sampson, F.R.C.O. Messrs. Jack Ellis and Archie Day (pianists); duets for two pianos—"Tarantelle" (Rachmaninoff). Vada Jefferies (violinist), "Larghetto" (Mazzy); Vada and Mary Jefferies and Jack Ellis, instrumental trio, "Trio in G" (Hurlstone); Hilda Cooper (contralto), "Who is Sylvia?" (Schubert); Mary Jefferies (cellist), "Romance" (Popper). 9.0: Metropolitan weather forecast; road information. 9.15: Archie Day (pianist), "Organ Toccata and Fugue in D Minor" (Bach); Fred Homer (baritone), "The Sea Gypsy" (Michael Heide); Erich Hayne (violinist) and Archie Day (pianist), "First Movement Sonata in F Major" (Beethoven); Erich Hayne (violinist), "The Swan" (Dvorak-Kreiser); Hilda Cooper (contralto) and Fred Homer (baritone), vocal duet, "Snowdrops" (Lehmann); Archie Day and Jack Ellis (pianists), duet for two pianos, "Valse" (Arensky), "Fan Roulant" (Duvonroy). 9.30: News. 9.40: Weather. 10.15: The Rhythm Rascals, three-quarters of an hour's entertainment; between dance numbers Daisy M'Dowell and Mrs. Stoddart will sing selected duets. 11.0: Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 469 Metres).

MORNING SESSION.

During the day descriptions of the interstate cricket match, South Australia v. Queensland, will be given. 11.15: Chimes. 11.16: Recordings. 11.45: Kitchen Craft and Menu Talk. 12.1: Recordings. 12.15: News. 12.40: Recordings. 12.52: Railway, Stock Exchange, and weather. 1.1: Player piano session. 1.15: Recordings. 1.59: Weather. 2.0: Close.

AFTERNOON SESSION.

3.0: Chimes. 3.1: Programme review and announcements. 3.4: Recordings. 4.0: O.P.O. chimes. 4.1: Player piano session. 4.15: An educational talk. 4.25: Stock Exchange. 4.30: Close down.

EVENING SESSION.

6.0: Chimes. 6.1: Children's Happy Moments. 6.15: Children's request numbers. 6.20: Dinner Session. 7.0: Chimes. 7.1: Senior Birthday League greetings; sporting service; general market reports. 7.20: A talk sponsored by the Australian Dental Association. 7.35: "Mo" Manning will review cricket. 7.45: Miss Laurie McLeod will speak on "Physical Culture."

NIGHT SESSION.

8.0: Chimes. 8.1: 50 Years Ago To-day, Programme review. 3.10: From the Malvern Methodist Church—a concert (arranged by Mr. Fred Pilgrim). Fred Pilgrim, organ solo—"In Springs" (Footlet). "Evening Song" (Bairdston). Phyllis Webb, soprano—"O That It Were So" (Bridle). "The Fields Are Full" (Gibbs). Clarice Gmeiner, violinist—"Romance in G" (Beethoven). Hilda Gill, contralto—"The Swan" (Orleg). "A Dream" (Rubinstein). Constance Pether, flute solo—"Serenade" (Woodall). Lewis Dawe, tenor—"Festal Hymn of Judith" (Bantock). Clarice Gmeiner, violinist—"Hungarian Dance" (Brahms-Jochaim). Hilda Gill, contralto—"Lascia ch'io pianga" (Handel). 9.1: Meteorological information, including Semaphore Hides. 9.2: Verses grain report. 9.3: Announcements. 9.5: From the Malvern Methodist Church, continuation of concert. Philip Yeatman—Organ solo, "Pavane in D" (Guilmant). Phyllis Webb, soprano—"Fusion" (Grivell). June is in My Heart" (Graham Vaughan). Constance Pether—Flute solo, "Romance" (Edward German). Lewis Dawe, tenor—"A Pray to Our Lady" (Ford). Fred Pilgrim, organ solo—"Glebe" (Payre) (Goss Custard). "Andantino" (Lemmer). Hilda Gill, contralto—"Silver" (Armstrong Gibbs). "Music, When Soft Voices Told" (Besley). Clarice Gmeiner, violinist—"Oriente" (Cull). "Salut d'Amour" (Bischoff). Phyllis Webb, soprano—"Jensel" (Mendelssohn). "A Legend" (Tschakowsky). Constance Pether—Flute solo, "Barcarole" (Strelicski). Philip Yeatman—Organ solo, "Final in E Flat" (Guilmant). 10.15: News, weather, sporting. Selections for to-morrow's races at Gawler and Sandown Park: cricket scores, South Australia v. Queensland. 11.30: Recordings. 11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION—7.30: Chimes. 7.31: Meteorology. 7.32: Perth. 7.32: The Day's Digest. 7.35: Musical reproduction. 7.55: Mails and shipping. 8.5: Cables. 8.10: Musical Reproduction. 8.27: Features of to-day's programme. 8.30: Close.

MORNING SESSION—10.0: Chimes. 10.1: Musical Reproduction. 10.10: Women's Interest Talk by Dorothy Graham. 10.30: Organ Recital. 11.0: Close.

MIDDAY SESSION—12.30: Chimes. 12.31: Musical Reproduction. 12.35: Market reports. 12.45: News. 12.50: Items of Interest. 1.0: Weather. 1.1: Luncheon Music. 2.30: Close.

THE RADIO MATINEE—3.30: Chimes. 3.31: Musical Reproduction. 3.45: Women's Interest Talk. Country Women's Association. 4.0: Concert. 4.55: Features. 5.0: Close.

EARLY EVENING SESSION—5.45: Chimes. 5.46: Children's Good-night Stories by Uncle Bas, and Army Maxine. 6.15: A.B.C. Younger Set Session. 6.30: Dinner Music. 7.30: Weather. 7.31: News. 7.35: Market Reports. 7.40: Stock Exchange. 7.42: Review of to-morrow's Sporting Fixtures. 7.57: Features.

EVENING SESSION—8.0: Chimes. 8.1: Weather. 8.2: Children's Instrumentals. 8.3: Racing Anticipations by Russell Sandeman. 8.27: Foley and Long, instrumentalists. 8.37: James Conarty—"Helpful Hints to Garden Lovers." 8.52: Announcements. 8.57: Weather. 8.58: Musical Reproduction. 9.15: Ring-side Description of Wrestling Contest, broadcast from Olympia by Russell Sandeman. 10.20: Dance Band. 10.50: Weather. 11.0: Chimes.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 316 Metres).

11.30 a.m. Sonora Recital. 11.34: Midlands Weather Report. 11.35: Sonora Recital. 11.55: Tasmanian Stations' 9 a.m. Weather Report. 12.1: Shipping, Mail Notices. Housewives' Guide. 12.8: Sonora Recital. 12.30: Announcements. 12.40: Sonora Recital. 1.5: Railway Auction Sales. 1.10: Sonora Recital. 1.30: Close down. 3.0: O.P.O. Clock chimes the hour. 3.1: Sonora Recital. 3.4: Weather. 3.5: Sonora Recital. 4.15: Recordings. 4.30: Close. 6.15: Children's Corner, with "Uncle David." 7.10: Recorded Music. 7.40: An Hour with John Brownlee, baritone, and Elsie Baker, contralto. 8.45: James Counsel, "The History and Development of Music." 9.45: Sonora Recital. 9.50: News. 10.1: Close.

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Local Programmes, Friday, November 29

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and Meteorological information for the man on the land.
 7.3: This morning's news from the "Daily Guardian."
 7.8: Austradio Musical Reproduction.
 7.43: Mails and Shipping.
 7.46: What's on to-day?
 7.50: Children's Birthday Calls.
 8.0: Music from the Studio.
 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
 10.32: To-morrow's sporting Events, by Oscar Lind.
 10.40: HORACE WEBER at the GRAND ORGAN.
 11.0: HOUSEHOLD HELPS: Cooking, by Miss Ruth Furst.
 11.10: CABLES—(Copyright) A.P.A. and "Sun"—"Herald" News Service.
 11.15: MORNING DEVOTION.
 11.30: Austradio Musical Reproduction.
 11.53: British Official Wireless Press.
 12.0: "Eig Ben." Stock Exchange and Metal Quotations.
 12.5: CAPTAIN L. ROBERTS will speak on "Burma."
 12.20: Midday weather forecast and weather synopsis. Special produce market session for the man on the land supplied by the State Marketing Board.
 12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch Hour Music.
 2.0: Stock Exchange, second call.
 2.2: A Glance at the afternoon "News."
 2.7: POPULAR EDUCATION—MICHAEL SAWTELL will speak on "Native Customs and Faith Healings."
 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- FROM THE 1929 RADIO DISPLAY, AT THE STATE SHOPPING BLOCK.
 NOTE—Results from the Cricket Match England v Queensland, played at Brisbane, will be broadcast as received.
 2.30: THE 2FC INSTRUMENTAL TRIO.
 2.42: MADAME PHYLLIS HOWE, Soprano—
 (a) "Butterfly Wings" (Phillips).
 (b) "Songs My Mother Taught Me" (Dvorak).
 2.49: THE H. W. VARNA STUDENTS FROM THE MACCUNN SCHOOL, in a Short Play entitled "The Traitor."
 3.4: THE 2FC INSTRUMENTAL TRIO.
 3.16: MADAME PHYLLIS HOWE, Soprano—
 (a) "The Stars" (Phillips).
 (b) "To Sing Awhile" (Lugmmond).
 3.22: THE 2FC INSTRUMENTAL TRIO.
 3.33: THE H. W. VARNA STUDENTS FROM THE MACCUNN SCHOOL, in a Short Play entitled "The Test Kiss."
 3.48: THE 2FC INSTRUMENTAL TRIO.
 4.0: "REDGUM" will give a talk on "Gardening."
 4.15: THE 2FC INSTRUMENTAL TRIO.
 4.28: Stock Exchange, third call.
 4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 6.45: Children's "Good-night" Stories, told by the "Hello Man," assisted by the Farmyard Five.
 6.45: Dinner Hour Music.
 7.20: A.B.C. Sporting Service.
 7.25: Special Country Session. Stock Exchange Resume. Markets. Weather Forecast. Late news from the "Sun" and "News." Truck bookings.
 7.58: To-night's Programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- To-night, George Black will tell 2FC listeners of "Old Time Theatricals." There is Organ Music, Saxophone Solos, and Song Groups, and the Programme relayed from 3LO, Melbourne, at 9.15, will be anticipated with pleasure by many Listeners. Through 2BL smart patter by Peter and Priscilla, Song Groups. Popular Selections, Wallace Nelson

INDEX

To Local Programmes

Friday, November 29.	
2FC, 2BL	28
2GB, 2UW, 2KY, 2UE	29
Saturday, November 30.	
2FC, 2BL, 2GB, 2UW, 2KY, 2UE	32
Sunday, December 1.	
2FC, 2BL, 2GB, 2UW, 2KY, 2UE	36
Monday, December 2.	
2FC, 2BL	38
2GB, 2UW, 2KY, 2UE	39
Tuesday, December 3.	
2FC, 2BL	42
2GB, 2UW, 2KY, 2UE	43
Wednesday, December 4.	
2FC, 2BL, 2GB	46
2UW, 2KY, 2UE (same as Friday)	29
Thursday, December 5.	
2FC, 2BL, 2GB, 2UE	50

To Interstate Programmes

Friday, November 29.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	30
Saturday, November 30.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	34
Sunday, December 1.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	37
Monday, December 2.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	40
Tuesday, December 3.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	44
Wednesday, December 4.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	48
Thursday, December 5.	
3LO, 3AR, 4QG, 5CL, 6WF, 7ZL	52

will speak on "A Great Australian—Professor Wallace," and Claude Corbett's Sporting Talk will complete an interesting night's offering.

- 8.0: ERIC MASTERS, Baritone.
 8.7: FROM CHRIST CHURCH, ST. LAURENCE, Organ Recital, arranged by Christian Hellemann.
 8.22: FROM THE STUDIO—AL HAMMETT, Saxophonist—
 (a) "Valse Yvonne" (Weidoff).
 (b) "Saxarella" (Weidoff).
 8.29: ERIC MASTERS, Baritone.
 8.36: FROM CHRIST CHURCH, ST. LAURENCE—Organ Recital, arranged by Christian Hellemann.
 8.51: FROM THE STUDIO—AL HAMMETT, Saxophonist—
 (a) "Rubato" (Lak).
 (b) "Sax Scandals" (Dornberger).
 8.58: THE COUNTRY MAN'S WEATHER SESSION—
 (a) "New South Wales Forecasts."
 (b) "Inter-State Weather Synopsis."
 Yachtsman's and Fisherman's Forecast.
 9.0: GEORGE BLACK will tell of "Old Time Theatricals."
 9.15: RELAY FROM 3LO, MELBOURNE.
 10.0: ROMANO'S CAFE DANCE ORCHESTRA, conducted by Bennie Abrahams.
 10.15: FROM THE STUDIO—Announcements. Late Official Weather Forecast.
 10.20: ROMANO'S CAFE DANCE ORCHESTRA, conducted by Bennie Abrahams.
 11.30: CLOSE. National Anthem.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
 8.16: Music for every mood.
 8.40: Meteorological data for the country.
 8.45: Mails and shipping information.
 8.50: Memory melodies.
 9.0: This morning's story.
 9.30: A musical interlude.
 9.40: British Official Wireless Press.
 9.45: New music.

FROM THE RADIO DISPLAY—1929—AT THE STATE SHOPPING BLOCK.

- 10.5: News from the "Daily Guardian."
 10.10: Austradio musical reproduction.
 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.

- 11.0: G.P.O. chimes. Close down.
MIDDAY SESSION—12 noon to 2.30 p.m.
 12.0: G.P.O. chimes and announcements.
 12.2: A pianoforte recital.
 12.30: LUNCH MUSIC.
 1.0: Afternoon news from the "Evening News."
 1.5: Studio music.
 1.15: Women's interest talk. MRS. MEREDITH-ATKINSON will speak on "OXFORD."
 1.30: Austradio musical reproduction.
 2.0: J. KNIGHT BARNETT at the "Wurlitzer."
 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: MAJOR SANFORD MORGAN will speak on "Yapayuya."
 2.45: Austradio musical reproduction.
 3.0: FROM THE BALLROOM OF THE ORIENTAL: Sydney Simpson's Syncopaters in dance music.
 FROM THE STUDIO—
 3.12: BASIL RYE, baritone.
 3.19: A DANCE NUMBER.
 3.22: FROM THE BALLROOM OF THE ORIENTAL. Sydney Simpson's Syncopaters in dance music.
 FROM THE STUDIO—
 3.32: WINIFRED BATCHELOR, soprano.
 (a) "Cradle Song" (Schubert).
 (b) "A Slumber Song" (Hart).
 (c) "Lullaby" (Cyril Scott).
 3.39: MELODY MEMORIES.
 3.45: THE "STORYTELLER" will speak on "A New Chronicle of Creamy Creek."
 4.0: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
 4.12: FROM THE STUDIO—BASIL RYE, baritone.
 4.19: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
 4.29: WINIFRED BATCHELOR, soprano.
 (a) "The Almond Tree" (Schumann).
 (b) "The Lotus Flower" (Schumann).
 (c) "Were I the Sunshine" (Chopin).
 4.36: Austradio musical reproduction.
 4.45: The Trade Hour—demonstration music.
 5.45: Weather information. Close down.
THE DINNER HOUR—6.15 to 7.55 p.m.
 6.15: DINNER QUARTET.
 6.45: THE GIRLS' RADIO CLUB, conducted by Miss Gwen Varley.
 7.5: The Country Man's Market Session. Wool, wheat, stock, farm produce, fruit, and vegetable markets.
 7.20: DINNER MUSIC.
 7.45: Austradio musical reproduction.
 7.55: What's on the air to-night?
TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.
 To-night 2BL has an entirely new feature, "Peter and Priscilla," in a snappy dialogue; orchestral music; two old favorites, Dorrie Ward and W. E. Lewis; Claude Corbett's sporting talk; and Wallace Nelson speaking on "A Great Australian Professor—GILBERT MURRAY," will complete our usual popular Friday night's entertainment.
 8.0: DORRIE WARD, soprano.
 (a) "Last Night" (Kjerulf).
 (b) "Hedge Roses" (Schubert).
 8.7: MURIEL LANG, cellist.
 "Sonata in E Minor" (Brahms).
 8.15: NATIONAL BROADCASTING ORCHESTRA (conducted by Horace Keats).
 (a) "Mosquite Ballet" (Cartilzon).
 (b) "Rose Marie" (Friml).
 8.30: W. E. LEWIS, baritone.
 (a) "Parted" (Tosti).
 (b) "Shipmates o' Mine" (Sanderson). (With Orchestral Accompaniment).
 8.37: MURIEL LANG, cellist.
 "Sur le Lac" (Godard).
 8.44: PETER and PRISCILLA, entertainers
 (a) "Impressions of Daily Life" (Cardon).
 8.54: THE NATIONAL BROADCASTING ORCHESTRA.
 "A Waltz Dream" (Strauss).
 9.6: DORRIE WARD, soprano.

- (a) "May in My Garden" (Haydn Wood).
- (b) "A Smile" (Landon Ronald).
- (c) "April's Here" (Landon Ronald).
- 9.13: WALLACE NELSON will speak on "A Great Australian Professor—GILBERT MURRAY."
- 9.28: Weather information for the man on the land.
- 9.30: PETER and PRISCILLA, entertainers. "Perfectly Matched" (Barnaby and Galatly), including, "Oh! You Have No Idea" (Doherty).
- 9.40: W. E. LEWIS, baritone.
 - (a) "When My Ships Come Sailing Home" (Dorel).
 - (b) "'Tis the Day" (Leoncavallo). (With Orchestral Accompaniment.)
- 9.47: CLAUDE CORBETT will give a sporting talk.
- 10.7: THE NATIONAL BROADCASTING ORCHESTRA.
 - (a) Suite. "Nautical Scenes" (Fletcher).
 - (b) "Snowflakes" (Bontelje).
- 10.25: Late news from the "Evening News" Late weather forecast.
- 10.30: NATIONAL ANTHEM. CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0: Music.
- 10.10: Happiness Talk by A. E. Bennett.
- 10.20: Music.
- 10.30: Women's Session by Mrs. W. J. Steizer.
- 11.30: Talk by Mrs. Jordan.
- 11.45: Close down.
- 2.0: Music.
- 2.5: Women's Radio Service by Mrs. Dorothy Jordan.
- 2.50: Movie Know All.
- 3.0: Music.
- 3.30: Close down.
- 5.15: Children's Session by Uncle George.
- 6.50: M.-G.-M. Radio Movie Club Session.
- 7.0: Music.
- 7.45: Feature Story.
- 8.0: SCHUBERT PROGRAMME, Miss Gwen Selva, soprano.

- 8.7: Symphony Orchestra.
- 8.15: Madame Befts-Vincent in an illustrated talk on Schubert.
- 8.30: Mr. Clement Hosking, baritone.
- 8.37: Instrumental Quintette.
- 8.50: Miss Gwen Selva, soprano.
- 9.0: Weather report.
- 9.3: Mr. Jack Win and Mr. Heath Burdock, Humour.
- 9.8: Symphony Orchestra.
- 9.15: Miss Maesmore Morris, contralto.
- 9.25: Violin solos.
- 9.35: Mr. Clement Hosking, baritone.
- 9.45: Symphony Orchestra.
- 9.50: Miss Maesmore Morris, contralto.
- 10.0: Instrumental music.
- 10.30: Close.

2UW

Radio Broadcasting, Ltd., Pailing's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION

- 12.30: Request numbers.
- 1.0: Music.
- 1.15: Talk on Homecraft, by Pandora.
- 1.40: Music.
- 2.30: Close.
- 4.30: Musical programme.

EVENING SESSION

- 5.30: Children's hour, conducted by Uncle Jack.
- 6.30: Close.
- 7.0: Request numbers.
- 8.0: Recital of popular music.
- 9.0: Comments on Foreign Affairs by Mr. J. M. Prentice.
- 9.10: Music.
- 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

MORNING SESSION

- 10.0: Tune in to the ticking of the clock.
- 10.3: Popular Fox Trots.
- 10.15: Calls and announcements.
- 10.30: WOMEN'S SESSION. Home hints and information, MRS. GRAY.
- 11.0: A few laughs.
- 11.5: Pianoforte selections.

- 11.15: Calls and announcements.
- 11.20: Musical interlude.
- 11.30: Request numbers.
- 11.40: Music and vocal items.
- 11.55: Where to go to-night.
- 12.0: Closing announcements.

CHILDREN'S SESSION

6 p.m.: Birthday calls, request numbers, and Kiddies' Entertainment. AUNT JEMIMA AND UNCLE BERT.

EVENING SESSION

- 7.0: Musical interlude.
- 7.5: Birthday calls.
- 7.15: SPORTING FEATURE. Turf topics. Review of candidates and their prospects for to-morrow. MR. GEO. A. DAVIS.
- 7.40: Request numbers.
- 8.0: Hawaiian steel guitar selections.
- 8.10: Women's information service. MRS. GRAY.
- 8.30: Music and vocal items from the Studio.
- 9.10: SPORTING FEATURE from the ring-side of McHugh's Leichhardt Stadium. Full description of main 15-round event.
- 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION.

7.15: Breakfast Time Hour Orchestral Music. 8.0: Clock and Chimes. 8.1: Musical Items. 8.30: Close down.

MIDDAY SESSION.

10.0: Orchestral Music, and Women's Session conducted by Miss Dorothea Vautier. 11.30: Old Time Orchestral and Vocal Concert. 12.0: Close down.

AFTERNOON SESSION.

1.0: Orchestral and Vocal Items. 1.45: Organ Recital. 2.0: Close down.

EVENING SESSION.

6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Health Talk by Mr. T. Gordon Marsden. 7.25: Orchestral Dinner Selections. 7.55: Programme Announcements and news from the "Sun." 8.0: Clock and Chimes. 8.1: Overture. "11 Trovatore" Selections. 8.10: Vocal and Instrumental Items. 10.15: National Anthem.

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Local Programmes, Saturday, November 30

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and Meteorological information for the man on the land.
 7.3: This morning's news from the "Daily Guardian."
 7.8: Austradio Musical Reproduction.
 7.45: Mails and Shipping.
 7.48: What's on to-day?
 7.50: Children's Birthday Calls.
 8.0: Music from the Studio.
 8.10: **CONDITION OF THE ROADS:** supplied by the Main Roads Board.
 8.15: **CLOSE.**

MORNING SESSION AND AFTERNOON SESSION.

- 10.30: Announcements.
 10.32: A.B.C. Racing Observer.
 10.45: Studio Music.
 11.0: **HOUSEHOLD HELPS:** Week-end suggestions by Miss Ruth Furst.
 11.10: **CABLES—(Copyright) A.P.A. and "Sun"—"Herald" News Service.**
 11.15: **AUSTRADIO MUSICAL REPRODUCTION.**
 1. 53: British Official Wireless Press.
 12.0: "Big Ben": Stock Exchange and Metal Quotations.
 1. 5: Studio Music.
 12.20: Midday Weather Forecast and Weather Synopsis.
 12.30: Studio Music.
 12.50: **FROM CANTERBURY:** Description of the Races in the running.
NOTE: Results from the Cricket Match, England v. Queensland, played at Brisbane, will be broadcast as received.
 During intervals between races, a musical programme will be broadcast from the Studio.
 4.35: **FROM THE STUDIO—Late Sporting Results.**
 4.45: **CLOSE.**

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 6.45: Children's "Good-night" Stories, told by the "Hello Man," assisted by Aunt Willa and Cousin Gwen.
 6.45: Dinner Hour Music.
 7.20: A.B.C. Sporting Service.
 7.25: Special Country Session. Stock Exchange Resumé. Markets. Weather Fore-

cast. Late News Service from the "Sun" and "News." Truck Bookings.
 7.58: **To-night's Programme.**

THE EVENING PRESENTATION—8 to 11.30 p.m.

- The Choral offering through 2FC to-night by the Sydney Male Choir, from the Conservatorium, will make a wide appeal. 2BL's Programme on Popular Lines, offers a desirable contrast.
 8.0: **FROM THE CONSERVATORIUM OF MUSIC—CONCERT ARRANGED BY THE SYDNEY MALE CHOIR.**
 9.0: **FROM THE STUDIO—THE COUNTRY MAN'S WEATHER SESSION—**
 (a) "New South Wales Forecasts."
 (b) "Inter-State Weather Synopses." Yachtsman's and Fisherman's Forecast.
 9.10: **FROM THE CONSERVATORIUM OF MUSIC—SECOND HALF OF CONCERT ARRANGED BY THE SYDNEY MALE CHOIR—**
 10.0: **FROM THE BALLROOM OF THE ORIENTAL—**Sydney Simpson's Syncopaters in Dance Music.
 10.15: **FROM THE STUDIO—Announcements.** Late Official Weather Forecast.
 10.20: **FROM THE BALLROOM OF THE ORIENTAL—**Sydney Simpson's Syncopaters in Dance Music.
 11.30: **CLOSE. NATIONAL ANTHEM.**

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 333 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
 8.18: Music for every mood.
 8.40: Meteorological data for the country.
 8.45: Mails and shipping information.
 8.50: Memory melodies.
 9.0: This morning's story.
 9.30: A musical interlude.
 9.40: British official Wireless Press.
 9.45: New music.
 10.5: News from the "Daily Guardian."
 10.10: Austradio musical reproduction.
 10.40: **MR. G. COOPER,** park superintendent of city parks, will speak on "GARDENING."
 11.0: G.P.O. chimes. Close down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
 12.2: A pianoforte recital.
 12.30: **LUNCH-HOUR MUSIC.**
 1.0: Afternoon news from the "Evening News."
 1.5: Austradio musical reproduction.
 2.0: **J. KNIGHT BARNETT** at the "Wurlitzer."
 2.12: Studio music

AFTERNOON ENTERTAINMENT—2.30 to 5.15 p.m.

- 2.30: **2BL INSTRUMENTAL TRIO.**
 2.43: **LOIS EVANS,** soprano.
 (a) "Gavotte" ("Manon" Massenet).
 (b) "Lament of Isis" (Bantock).
 2.49: **2BL INSTRUMENTAL TRIO.**
 3.4: **AL SHAW,** jazz pianist.
 (a) "Spring Fever" (Bloom).
 (b) "Sweetheart of All My Dreams" (Fitch).
 3.11: **2BL INSTRUMENTAL TRIO.**
 3.26: **LOIS EVANS,** soprano.
 (a) "Little Brown Owl" (Sanderson).
 (b) "Break of Day" (Sanderson).
 3.33: **2BL INSTRUMENTAL TRIO.**
 3.48: **AL SHAW,** jazz pianist.
 (a) "Patsy" (Perry).
 (b) "I'll Always Be in Love With You" (Ruby).
 2.55: **2BL INSTRUMENTAL TRIO.**
 4.28: **DANCE ITEMS.**
 4.45: Austradio musical reproduction.
 5.0: Complete sporting and racing resume.
 5.15: Close down.

THE DINNER HOUR—6.15 to 7.58 p.m.

- 6.15: **DINNER QUARTET.**
 6.45: "THE CAPTAIN" to his comrades.
 7.5: **THE A.B.C. Sporting Service.**
 7.20: **DINNER MUSIC.**
 7.30: **FROM THE ARCADIA THEATRE. CHATSWOOD.**
 Organ recital by Nicholas Robins.
 7.58: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 12.0

Our sporting programme to-night is in sharp contrast with the choral music by the Sydney Male Choir, through 2FC service.

- 8.0: **THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.**
 8.12: **DES TOOLEY,** The Girl with the Unusual Voice.
 (a) "Down Among the Sugar Cane" (De Rose).
 (b) "Sweetheart of All My Dreams" (Fitch).
 (c) "An Old Italian Love Song" (Harrison).
 8.19: **WALLY BARNES,** comedian.
 8.29: **HAROLD HARRISON,** mouth-organ solos.
 (a) March, "Old Comrades" (Telke).
 (b) Medley, "Plantation Songs."
 1. "Kentucky Home" (Foster).
 2. "Poor Old Joe" (Foster).
 3. "Swanee River" (Foster).
 8.36: **TO-NIGHT'S BIG SPORTING FEATURE.**
 9.36: Weather information for the man on the land.
 9.38: **THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.**
 9.48: **DES TOOLEY,** The Girl with the Unusual Voice.
 (a) "High Upon the Hilltop" (Whiting).
 (b) "Mean to Me" (Turk-Alert).
 (c) "This is Heaven" (Akst).
 9.55: **HAROLD HARRISON,** mouth-organ solos.
 (a) "Destiny Waltz" (Baynes).
 (b) "Over the Waves" waltz (Rosa).
 10.2: **WALLY BARNES,** comedian.
 10.12: **THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.**
 10.25: Late news from the "Evening News." Late weather forecast.
 10.30: **THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.**
 12.0: **NATIONAL ANTHEM. CLOSE.**

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 3.0: Musical Session.
 5.15: Children's Session by Uncle George.
 7.0: **REQUEST HOUR.**
 8.0: **MUSICAL SESSION.**
 10.30: Close.

2UW

Radio Broadcasting, Ltd., Pallings Building, Ash St., Sydney (Wavelength, 267 Metres).

- 5.30 p.m.: Children's Hour, conducted by Uncle Jack.
 6.30: Close.
 7.0: Musical programme.
 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

CHILDREN'S SESSION

- 6 p.m.: Birthday calls, request numbers, and Kiddies' Entertainment. **AUNT JEMIMA AND UNCLE BERT.**

EVENING SESSION

- 7 p.m.: Musical interlude
 7.5: Birthday calls.
 7.15: **SPORTING FEATURE.** Turf topics: How they ran to-day.
 7.50: Request numbers.
 10.0: Closing announcements

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

- EARLY MORNING SESSION, 7.15 to 8.30,** as usual.

EVENING SESSION.

- 6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Turf Talk by Mr. T. Hopkins, Turf Expert. 7.45: Dinner Music. 8.0: Clock and Chimes. 8.1: Overture, "Orpheus in Hades." 8.10: Vocal and instrumental items. 10.30: Close down.

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Interstate Programmes, Friday, November 29

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0: Melbourne Observatory time signal. 7.1: Shipping news. 7.5: Physical exercises to music. 7.20: Reproduced music. 7.40: Mail notices. 7.42: What's On To-day? 7.45: Market reports. 7.53: Weather forecasts. 7.55: News and cables. 8.0: Melbourne Observatory time signal. 8.1: Arrival times of express trains. 8.4: Musical interlude. 8.15: Close down.

MORNING SESSION.

10.30: Current Happenings in Sport, by Mel. Morris. 10.45: Musical reproduction. 11.0: Fish Market Reports. 11.3: Musical reproduction. 11.30: Morning sales; Melbourne Stock Exchange; metal prices. 12.0: Melbourne Observatory time signal. 12.1: Musical reproduction. 12.15: News and cables; Corn Exchange midday report; Newmarket stock sales; Associated Stock and Station Agents' official report. 12.30: Close down.

MIDDAY SESSION.

1.0: Melbourne Observatory time signal. Stock Exchange information; meteorological information; weather forecast for Victoria, New South Wales, South Australia, and Tasmania; ocean forecasts; river reports; rainfall data. 1.15: Comments on the day's news. 1.30: Musical interlude.

EDUCATIONAL SESSION.

2.0: "The Races and Peoples of the World." Mr. H. J. G. Esmonde. 2.15: Musical interlude. 2.20: "Gems of English Literature—Lord Chesterfield's Letters." Professor G. H. Cowling, M.A. 2.35: Musical interlude. 2.40: A Talk in German, Mr. O. E. Green, M.A., Dip. Ed. 2.55: Musical interlude. 3.0: Melbourne Observatory time signal.

THE RADIO MATINEE.

3.0: The Studio Light Orchestra—Suite, "From the South" (Nicode). 3.10: George Cowley, baritone—"The Bland Monger" (Easthope Martin). "Lonely Pine" (Elliott). 3.17: Joyce Hamilton, piano recital—"Castanet" (Ketten). "Prelude in G Minor" (Pachulski). "Humoresque" from Miniature Suite (York-Bowen). "Amened" (Schumann). "Staccato Caprice" (Max Yotrich). 3.30: Nell Crane, "The Personality Singer" (The Bush Cinderella) (Lawrance). "I Want to Be Where the Girls Are" (Lawrance). 3.37: The Studio Light Orchestra—"Three Dances from Nell Gwynne" (German); song, "I Passed by Your Window" (Grahe) 3.47: A Peaceful Evening, by Egbert Sirron, produced by Claude Carter. One-half, Claude Carter; The Better Half, Dorothy Leslie. 4.2: Bertha Jorgensen, violin—"Melody" (Luck-Kreiser). Exchange report (arr. Kreiser). 4.8: George Cowley, baritone—Selected. 4.15: Joseph Barriette, flute—"Scherzo" (Sabathel). 4.19: Nell Crane, "The Personality Singer—"I Was a Good Little Baby" (Lawrance). "The Candy Kid," child impersonation (Lawrance). 4.29: The Studio Light Orchestra—"Habenera," from "Natomia" (Herbert).

THE CHILDREN'S CORNER.

5.45: "Rolling Rites" and "Plain Peter."

EVENING SESSION.

6.35: Melody broadcast. 6.45: Swimming—Hints for the forthcoming season. Mr. Les Uren. 6.55: Musical interlude. 7.0: Melbourne Observatory time signal. 7.1: Countrymen's Session—Stock Exchange information; Exchange report; Associated Stock and Station Agents' official report; Wool Exchange report; mines and metals; fish and rabbit prices; farm and dairy produce report, supplied by the Interstate Dairy produce committee; wholesale fruit prices, supplied by the Wholesale Fruit Merchants' Association; retail fruit prices, supplied by the Victorian Fruitgrowers' Association; citrus fruit prices, supplied by the Victorian Central Citrus Association; winter sports reports; rainfall data. 7.25: Gardening Hints—Tuberous Begonias, Mr. W. R. Hawkins. 7.40: News and cables. 7.45: "The Romance of Ruins." Dr. E. Sweetman, M.A., Litt.D. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: Collingwood Citizens' Band (conductor, F. O. Johnson)—March, "Ivanhoe" overture, "Vocaccio." 8.10: "The Five Loonies" in "A Trip to Northborough," a burlesque sketch specially written for radio, reminding us of Shakespeare's words: "I am rather have a fool to make me merry than experience to make me sad." 8.20: Collingwood Citizens' Band—Selected. 8.25: John Hopkins, Orations of Famous Men. 8.35: Collingwood Citizens' Band—Cornet solo. 8.48: Tom Semple, tenor—"The Curtain Falls" (Hardelt); "The Plumes of Arden," (Wm. James). 8.55: The Hilo Duo—Hawaiian entertainers. 9.5: Norman Bland and Partner, "Almost Gentlemen," will entertain. 9.15: Collingwood Citizens' Band—Selection, "Gems of Harmony." 9.23: The Melbourne Male Quartette—"Believe Me If All" (arr. Brewer), "A Marked Improvement" (arr. Chaffin). 9.31: Collingwood Citizens' Band—"Russian Cradle Song"; fox-trot, "When My Dreams Come True." 9.39: Violet Semple, contralto—"A Dream in the Twilight" (Strauss), "Cradle Song" (arr. Kreiser). 9.45: Collingwood Citizens' Band—Trombone solo. 9.49: Norman Bland and Partner, "Almost Gentlemen," will entertain. 9.55: The Hilo Duo—Hawaiian entertainers. 10.0: Tom Semple, tenor; Violet Semple, contralto—"O, Lovely Night" (Ronald); "Carmena" (Lane Wilson). 10.8: Collingwood Citizens' Band—Trombone Trio, selected. (Winners of W.A. Centenary Trombone Trio—March, "Ironclad.")

10.15: Eric Welch will speak on "To-morrow's Races at Sandown Park." 10.25: British official wireless news; meteorological information; items of interest. 10.35: Paul Jaedic and his Band—Latest dance numbers. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION.

8.15: "Australdio" musical reproduction. 8.45: Weather data. 9.0: O.P.O. chimes. 9.1: News and cables. 9.5: Musical reproduction. 10.0: Chimes. 10.1: British official wireless news. 10.10: Announcements. 10.30: Arnold Holman, at the Wiltzer. 10.50: The daily broadcast service. 11.0: Close down.

MIDDAY SESSION.

12.0: G.P.O. chimes. 12.1: Famous Women—Sarah Siddons, Miss Agnes St. Clair. 12.15: Fifteen minutes synopsis. 12.30: Luncheon music, supplied by the Studio Light Orchestra. 2.0: G.P.O. chimes.

AFTERNOON SESSION.

2.1: Orchestra, Brunswick Concert Orchestra. 2.8: Quartette, "The Music Art Singers" Quartette. 2.11: Violin, Hirschel Plastro. 2.19: Soprano, Edith Mason. 2.23: Band, Brunswick Military Band. 2.26: Comedienne, Bessie Brown. 2.29: Orchestral, Isham Jones' Orchestra. 2.32: Entertainers, Jones and Hare. 2.35: Band, Brunswick Military Band. 2.38: Quartette, the Music Art Singers Quartette. 2.47: Soprano, Edith Mason. 2.51: Orchestral, Brunswick Concert Orchestra. 2.54: Duet, Cook Sisters. 3.0: From the Kooyong Tennis Court, description of interstate tennis matches by Mr. A. W. Dunlop. 3.15: Musical reproduction. 3.40: Topical chatter, "The Flapper and Auntie." 3.45: Musical interlude. 4.0: A Woman's Wanderings through the Bush. 4.15: From the Kooyong Tennis Court, description of interstate tennis matches by Mr. A. W. Dunlop. 4.30: "Australdio" musical reproduction. 5.0: Chimes. 5.1: From the Kooyong Tennis Court, description of interstate tennis matches by Mr. A. W. Dunlop. 5.15: Musical reproduction. 5.30: Weather. 5.45: Close.

EVENING SESSION.

6.15: Dinner music, supplied by Paul Jaedic and his Band. 7.30: What's on the air to-night? 7.32: Sporting results. 7.35: Road notes. 7.40: Latest musical releases. 8.0: O.P.O. chimes.

NIGHT SESSION.

8.1: A.I.F. Recollections in the Poll's shoes, Mr. C. Ellis. 8.15: Common Singing, transmission from Geelong, conductor, W. Sampson. 10.20: Weather and news. 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

EARLY MORNING SESSION.

7.30: News. 7.58: Time signals. 8.0: Records. 8.18: News. 8.30: Close.

MORNING SESSION.

11.0: Music. 11.5: Social news. 11.15: A cookery talk by The Etiquette Girl. 11.30: Music. 11.35: More social news. 11.45: Music. 12.0 (noon): Close down.

MIDDAY SESSION.

1.0: Market reports and weather information. 1.30: Lunch hour music. 2.0: Close down.

AFTERNOON SESSION.

3.0: A programme of electrically reproduced records. 3.30: Mail train running times. 3.5: From St. John's Cathedral, recital by Mr. George Sampson, F.R.C.O. (City Organist). 4.15: This afternoon's news. 4.30: Close down. 6.0: Mail train running times, mail information, shipping news; dinner music. 6.25: Commercial announcements. 6.30: Bedtime stories conducted by the "Sandman."

LATE COMMERCIAL NEWS.

7.0: News. 7.5: Stock Exchange. 7.6: Metal quotations. 7.7: Market reports. 7.25: Penwick's stock report. 7.30: Weather. 7.40: Announcements. 7.43: Time signals. 7.45: To-morrow's sporting fixtures reviewed.

NIGHT SESSION.

8.0: A programme of classic music conducted by Mr. George Sampson, F.R.C.O. Messrs. Jack Ellis and Archie Day (pianists); duets for two pianos—"Tarantelle" (Rachmaninoff); Vada Jefferies (violinist), "Larghetto" (Mazzy); Vada and Mary Jefferies and Jack Ellis, instrumental trio, "Trio in G" (Hurlstone); Hilda Cooper (contralto), "Who is Sylvia?" (Schubert); Mary Jefferies (cellist), "Romance" (Popper). 9.0: Metropolitan weather forecast; road information. 9.15: Archie Day (pianist), "Organ Toccata and Fugue in D Minor" (Bach); Fred Homer (baritone), "The Sea Gypsy" (Michael Heide); Erich Hayne (violinist) and Archie Day (pianist), "First Movement Sonata in F Major" (Beethoven); Erich Hayne (violinist), "The Swan" (Dvorak-Kreiser); Hilda Cooper (contralto) and Fred Homer (baritone), vocal duet, "Snowdrops" (Lehmann); Archie Day and Jack Ellis (pianists), duet for two pianos, "Valse" (Arensky), "Fan Roulant" (Duvonroy). 9.30: News. 9.40: Weather. 10.15: The Rhythm Rascals, three-quarters of an hour's entertainment; between dance numbers Daisy M'Dowell and Mrs. Stoddart will sing selected duets. 11.0: Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 469 Metres).

MORNING SESSION.

During the day descriptions of the interstate cricket match, South Australia v. Queensland, will be given. 11.15: Chimes. 11.16: Recordings. 11.45: Kitchen Craft and Menu Talk. 12.1: Recordings. 12.15: News. 12.40: Recordings. 12.52: Railway, Stock Exchange, and weather. 1.1: Player piano session. 1.15: Recordings. 1.59: Weather. 2.0: Close.

AFTERNOON SESSION.

3.0: Chimes. 3.1: Programme review and announcements. 3.4: Recordings. 4.0: O.P.O. chimes. 4.1: Player piano session. 4.15: An educational talk. 4.25: Stock Exchange. 4.30: Close down.

EVENING SESSION.

6.0: Chimes. 6.1: Children's Happy Moments. 6.15: Children's request numbers. 6.20: Dinner Session. 7.0: Chimes. 7.1: Senior Birthday League greetings; sporting service; general market reports. 7.20: A talk sponsored by the Australian Dental Association. 7.35: "Mo" Manning will review cricket. 7.45: Miss Laurie McLeod will speak on "Physical Culture."

NIGHT SESSION.

8.0: Chimes. 8.1: 50 Years Ago To-day, Programme review. 3.10: From the Malvern Methodist Church—a concert (arranged by Mr. Fred Pilgrim). Fred Pilgrim, organ solo—"In Springs" (Footel). "Evening Song" (Bairdston). Phyllis Webb, soprano—"O That It Were So" (Bridle). "The Fields Are Full" (Gibbs). Clarice Gmeiner, violinist—"Romance in G" (Beethoven). Hilda Gill, contralto—"The Swan" (Orleg). "A Dream" (Rubinstein). Constance Pether, flute solo—"Serenade" (Woodall). Lewis Dawe, tenor—"Festal Hymn of Judith" (Bantock). Clarice Gmeiner, violinist—"Hungarian Dance" (Brahms-Jochaim). Hilda Gill, contralto—"Lascia ch'io pianga" (Handel). 9.1: Meteorological information, including Semaphore Hides. 9.2: Verses grain report. 9.3: Announcements. 9.5: From the Malvern Methodist Church, continuation of concert. Philip Yeatman—Organ solo, "Pavane in D" (Guilmant). Phyllis Webb, soprano—"Fusion" (Grivell). June is in My Heart" (Graham Vaughan). Constance Pether—Flute solo, "Romance" (Edward German). Lewis Dawe, tenor—"A Pray to Our Lady" (Ford). Fred Pilgrim, organ solo—"Glebe" (Payre) (Goss Custard). "Andantino" (Lemmer). Hilda Gill, contralto—"Silver" (Armstrong Gibbs). "Music, When Soft Voices Told" (Besley). Clarice Gmeiner, violinist—"Oriente" (Cull). "Salut d'Amour" (Elgar). Phyllis Webb, soprano—"Jensenslem" (Mendelssohn). "A Legend" (Tschakowsky). Constance Pether—Flute solo, "Barcarole" (Strauss-Ertl). Philip Yeatman—Organ solo, "Final in E Flat" (Guilmant). 10.15: News, weather, sporting. Selections for to-morrow's races at Gawler and Sandown Park: cricket scores, South Australia v. Queensland. 11.30: Recordings. 11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION—7.30: Chimes. 7.31: Meteorology. 7.32: Perth. 7.32: The Day's Digest. 7.35: Musical reproduction. 7.55: Mails and shipping. 8.5: Cables. 8.10: Musical reproduction. 8.27: Features of to-day's programme. 8.30: Close.

MORNING SESSION—10.0: Chimes. 10.1: Musical reproduction. 10.10: Women's Interest Talk by Dorothy Graham. 10.30: Organ Recital. 11.0: Close.

MIDDAY SESSION—12.30: Chimes. 12.31: Musical reproduction. 12.35: Market reports. 12.45: News. 12.50: Items of interest. 1.0: Weather. 1.1: Luncheon Music. 2.30: Close.

THE RADIO MATINEE—3.30: Chimes. 3.31: Musical reproduction. 3.45: Women's Interest Talk. Country Women's Association. 4.0: Concert. 4.55: Features. 5.0: Close.

EARLY EVENING SESSION—5.45: Chimes. 5.46: Children's Good-night Stories by Uncle Bas, and Army Maxine. 6.15: A.B.C. Younger Set Session. 6.30: Dinner Music. 7.30: Weather. 7.31: News. 7.35: Market Reports. 7.40: Stock Exchange. 7.42: Review of to-morrow's Sporting Fixtures. 7.57: Features.

EVENING SESSION—8.0: Chimes. 8.1: Weather. 8.2: Children's Instrumentalists. 8.12: Racing Anticipations by Russell Sandeman. 8.27: Foley and Long, instrumentalists. 8.37: James Conarty—"Helpful Hints to Garden Lovers." 8.52: Announcements. 8.57: Weather. 8.58: Musical reproduction. 9.15: Ring-side Description of Wrestling Contest, broadcast from Olympia by Russell Sandeman. 10.20: Dance Band. 10.50: Weather. 11.0: Chimes.

7ZL

Tasmanian Broadcasters Pty., Burary Bays, Elizabeth Street, Hobart (Wavelength, 316 Metres).

11.30 a.m. Sonora Recital. 11.34: Midlands Weather Report. 11.35: Sonora Recital. 11.55: Tasmanian Stations' 9 a.m. Weather Report. 12.1: Shipping, Mail Notices. Housewives' Guide. 12.8: Sonora Recital. 12.30: Announcements. 12.40: Sonora Recital. 12.5: Railway Auction Sales. 1.10: Sonora Recital. 1.30: Close down. 3.0: O.P.O. Clock chimes the hour. 3.1: Sonora Recital. 3.4: Weather. 3.5: Sonora Recital. 4.15: Recordings. 4.30: Close. 6.15: Children's Corner, with "Uncle David." 7.10: Recorded Music. 7.40: An Hour with John Brownlee, baritone, and Elsie Baker, contralto. 8.45: James Counsel, "The History and Development of Music." 9.45: Sonora Recital. 9.50: News. 10.1: Close.

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Interstate Programmes, Saturday, November 30

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.
7.0 to 8.15: As usual.
MORNING SESSION.
10.30 to 12.30: As usual.
MIDDAY SESSION.
1.0 to 1.30: As usual.
AFTERNOON SESSION.
2.0: Musical reproduction. 2.10: Description of Hurdle Race, 2 miles. Sandown Park races, by Eric Welch. 2.20: "Australdo" musical reproduction. 2.45: Description of cricket match. 3.10: Description of Sandown Park Plate, 6 furlongs. Sandown Park races, by Eric Welch. 3.20: Description of cricket match. 3.25: From Kooyong Tennis Courts, description of Inter-State tennis matches, by Mr. A. W. Dunlop. 3.45: Description of Summer Handicap, 1½ mile. Sandown Park races by Eric Welch. 3.50: From Kooyong Tennis Courts, description of Inter-State tennis matches, by Mr. A. W. Dunlop. 4.0: Melbourne Observatory time signal. Sporting results to hand. 4.5: "Australdo" musical reproduction. 4.10: Description of Sandown Purse, one mile. Sandown Park races by Eric Welch. 4.20: Description of cricket match. 4.30: From Kooyong Tennis Courts, description of Inter-State tennis matches, by Mr. A. W. Dunlop. 4.40: Description of Trial Welter Handicap, 6 furlongs. Sandown Park races, by Eric Welch. 4.50: Description of cricket match. 5.0: Melbourne Observatory time signal. Sporting results to hand. 5.10: From Kooyong Tennis Courts, description of Inter-State tennis matches, by Mr. A. W. Dunlop. 5.20: Description of cricket match. 5.30: Sporting results to hand. 5.35: Close down.

THE CHILDREN'S CORNER.

5.45: "Little Miss Kookaburra." After a musical Interlude, Miss Kookaburra will give the birthday

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greetings. 6.20: For the Older Boys and Girls—"Stamp Collecting." Mr. C. R. Franklin.

EVENING SESSION.

6.40: Sporting results. 6.55: Musical Interlude. 7.0: Melbourne Observatory time signal. 7.1: Countryman's Session. 7.25: Stories of the Mining Fields, "Chinese in the Diggings," Mr. Chas. Daley. 7.40: "The Herald" news service, cable news service (copyright, Sun-Herald News Service, Ltd., and Australian Press Association). 7.45: Wandering Around the World—Mexico (Early History), Mr. H. J. O. Esmonde. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: Transmission from Assembly Hall, Collins Street, Melbourne—Grand Concert by the Orpheon Chorists. 1. Choral Songs of England (R. Boughton)—(a) "Song of Our Fathers," (b) "Song of Evening" (first performance in Melbourne). 2. W. W. Cadzow, tenor—"Onaway, Awake, Beloved" (Coleridge-Taylor). 3. Choral Songs for Ladies' Voices—(a) "Pastorale" (G. Holst), (b) Two Eastern Pictures, (c) "Spring" (J. S. Bach). 4. Holst, with harp accompaniment. 4. W. J. Barklam, flute—"Un Petit Rien" (Krantz). 5. "Minuet" (Krantz). 6. "Valse" (Chopin). 7. Choral—"I Love My Love" (G. Holst). 8. Irish Folk-song performance in Melbourne. 9. W. W. Cadzow, tenor—"O Mistress Mine"; "Blow, Blow Thou, Winter Wind," two Shakespearean songs by Roger Quilter.

8.55: Description of events at the Motordrome. 9.5: Progress results of State elections. 7. Choral Songs for Male Voices—Old English Songs (G. Bantock). 1. "Here's to the Maiden of Bashful Fifteen." 2. "Love Will Find Out the Way." 3. "Drink to Me Only with Thine Eyes." 4. "Here's a Health Unto His Majesty" (first performance in Melbourne). 8. W. J. Barklam, flute—"Le Rossignol" (Clardit). 9. Choral—"Three Choral Hymns from the Rig-Veda (G. Holst)—(a) "Hymn to the Unknown God," (b) "Funeral Hymn," (c) "Battle Hymn." These were given for the first time in Melbourne by the Chorists in April of this year. 10.15: Progress results of the State elections. During intervals in the broadcasting of the election results Paul Jeacle and his Band will provide dance music from the Plaza Ballroom, St. Kilda. 12.0: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 181 Metres).

MORNING SESSION.

8.15 to 11.0: See Friday.

MIDDAY SESSION.

12.0 to 3.0: As usual.

THE RADIO MATINEE.

3.0: Paul Jeacle and his Band—"Sweetheart of All my Dreams" (Fitch), "Mother's Boy" (Green), 3.6: Ernest Wilson, baritone—"The Sailor's Paradise" (Richards), "The Stockrider's Song" (W. O. James), 3.13: Bruce Wite, piano, selected. 3.17: Courtney Ford and Ivy Davis, in musical comedy sketch, "After the Show." 3.27: Paul Jeacle and his Band—"Lonesome Little Doll" (Cowan), "My Troubles Are Over" (Monaco), selected. 3.35: Leslie Jephcott, tenor—"I Will Await Thee" (Coningsby Clarke), "Grey Days" (Johnson), 3.42: Bob Libbis, trombone, selected. 3.46: One-act play, "Death and Wisdom." Characters: Peggy Keenan, Irene Lascelles, Jim Wyman, Gerald Heathcote. Scene: A small dairy. Time: The present. 4.1: Paul Jeacle and his Band—"In a Kitchenette" (Duban), "Jericho" (Meyer), 4.7: Ernest Wilson, baritone—"Long Ago in Alaska" (Massager), "The Carpel" (Sanderson), 4.14: Piano novelty by an Absent Artist. 4.20: Courtney Ford and Ivy Davis, comedy sketch, "Writing a Play." 4.30: Paul Jeacle and his Band—"Dream of Love and You" (Taylor), "Lovely Little Bluebird" (Woodis), 4.36: Leslie Jephcott, tenor—"Songs of Araby" (Clay), "Our Little Home" (Coates), 4.43: Claude Jeacle, saxophone, selected. 4.47: Paul Jeacle and his Band—"The Toy-maker's Dream" (Golden), "Laughing Marionette" (Collins), "Speech" (Clare), 5.0: G.P.O. chimes. 5.1: "Australdo" musical reproduction. 5.30: Weather data. 5.45: Close down.

EVENING SESSION.

6.15: Dinner music, supplied by the Studio Light Orchestra. 7.30: What's on the air to-night? 7.32: Sporting results. 7.40: Latest musical releases. 8.0: G.P.O. chimes.

NIGHT SESSION.

8.1: A special programme has been arranged. 10.20: Weather and news. 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 383 Metres).

EARLY MORNING SESSION.

7.30 to 8.30: As usual. No Morning Session; no midday transmission.

AFTERNOON SESSION.

3.0 to 4.30: As usual.

EARLY EVENING SESSION.

6.10 to 7.30: As usual.

NIGHT SESSION.

8.0: The Aloha Trio, Hawaiian music; Elsie Hoopert (soprano), "April is a Lady"; John Morrison (entertainer), "An Irish Letter" (Abon); E. Sheridan (baritone), "You Will Never Grow Old" (Drummond); Hilda Woolmer (pianist), popular items; Alice Raven (contralto), "Ave Maria" (Mascagni); Helen M'Gregor Robertson (elocutionist), "The Amateur Rider" (Pat-

erson). Note—At suitable times during the evening the two semi-finals of the main event at Davies Park Speedway will be described in the running. 9.0: Metropolitan forecast. Aloha Trio, Hawaiian music; Elsie Hoopert (soprano), "Spring's Awakening"; John Morrison (entertainer), "Blinks Converter"; L. Sheridan (baritone), "Jack of All Trades" (Martin); Alice Raven (contralto), "Kathleen Ma'vourneen"; The Aloha Trio, Hawaiian melodies; Ernest Harper (baritone), "Pals" (Squire). 10.40: News; weather; close.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 469 Metres).

AFTERNOON SESSION.

12.0: Chimes. 12.1: Late selections for Flemington races by "Silvius." 12.3: Probable starters and selections for to-day's races at Gawler. 12.15: News; weather. 12.45: Recordings. 1.1: Flying piano session. 1.15: From Gawler, riders and positions for Handicap Trial Stakes, about 7½ furlongs. 1.20: Sandown Park race results. 1.30: Running description of the Handicap Trial Stakes. 1.55: Riders and positions of Handicap Hurdle Race, about 2 miles and 20 yards. 2.0: Sandown Park race results. 2.10: Running description of Handicap Hurdle Race. 2.35: Riders and positions for November Handicap, 1½ mile. 2.50: Running description of November Handicap. 3.1: Resume of Sandown Park race results. 3.15: Riders and positions for Jumpers' Flat Race, one mile and three furlongs. 3.30: Running description of Jumpers' Flat Race. 3.55: Riders and positions for Welter Handicap, about 7½ furlongs. 4.0: Resume of Sandown Park race results. 4.10: Running description of Welter Handicap. 4.35: Riders and positions for Flying Handicap, six furlongs. 4.50: Running description of Flying Handicap. 4.55: Resume of Sandown Park race results. 5.0: Close. Dividend on Flying Handicap, 5.0: Close.

EVENING SESSION.

6.0 to 7.0: As usual. 7.10: Rev. G. E. Hale, B.A., will speak on "The Mind of Bernard Shaw." 7.25: Mr. C. G. Riley on "Items of Interest." 7.40: Resume of Victoria Park and Sandown Park race results; district cricket results; yachting, rowing, and tennis results; athletic results.

NIGHT SESSION.

8.0: The captains of the South Australian and Queensland teams will speak on "The Cricket Match." 8.5: A Talk on the Centenary of A. Rubinstein. Interpretations of his works will be played by Jean Finlay, L.A.B., pianist. 8.15: Haydn Male Quartette. 8.22: Cy Pier. 8.24: Netta Rodney, soubrette. 8.32: Pianoforte recital by Hans Bertram (blind pianist), who will play some of his own compositions. 8.40: Signor Torre, baritone—"Amore Amor" (Tirindelli), "Plange con me" (Tosti). 8.46: Cy Pier. 9.0: Alys Watson, soprano. 9.7: A play (produced by Phyllis Tier), in which Phyllis Tier and Gordon Madigan will take part. 9.23: Netta Rodney, soubrette. 9.30: Cy Pier. 9.37: Signor Torre, baritone—"Eri Tu" (Verdi), "O Sole Mio" (Di Capua). 8.44: Cy Pier. 9.49: Haydn Male Quartette. 9.56: Instrumental number. 10.3: Alys Watson, soprano. 10.10: Instrumental number. 10.20: Resume of Victoria Park and Sandown Park results; district cricket, yachting, rowing, and tennis results; athletic results. 10.30: Dance music. 11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION. MORNING SESSION. MIDDAY SESSION. THE RADIO MATINEE. and EARLY EVENING SESSION, as usual.
EVENING SESSION.—8.0: Chimes. 8.1: Weather. 8.2: Cy Pier. 8.3: Description of Motor Cycle Golfers' broadcast from Speedway Meeting at Cemeront. 8.45: Exerson Banjo Troupe. 8.55: Announcements. 9.0: Weather. 9.1: Speedway. 9.30: Exerson Banjo Troupe. 9.40: Speedway. 10.0: Weather. 10.7: Dance Band. 10.59: Weather. 11.0: Chimes.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 116 Metres).

11.30 a.m.: Record recital. 11.34: Midlands Weather report. 11.35: Record recital. 11.55: Tasmanian Stations' 9 a.m. Weather Report. 12.1: Shipping. Mail Notices. Housewives' Guide. 12.8: Sonora Recital. 12.30: News. Announcements. 12.40: Record Recital. 1.5: Railway Auction Sales. 1.10: Record Recital. 1.30: Close down. 3.0: Transmission from the T.C.A. Ground—Cricket Match A Grade, Sandy Bay v. New Town, described by Sid Jones. 5.10: All Sporting Results to hand. 5.15: Close down. During the afternoon all sporting results will be given. 6.10: All Sporting Results. 6.25: Children's Corner, with "Uncle David." 7.10: Recorded Music. 7.40: Roy Johnson will speak on "Mona Tramping." 7.45: James Council will speak on "European Affairs." 8.1: Record Recital. 8.15: A Concert Programme arranged by Madame Lucie Benson. 9.30: Record Recital. 10.20: Close.

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Local Programmes, Saturday, November 30

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and Meteorological information for the man on the land.
7.3: This morning's news from the "Daily Guardian."
7.8: Austradio Musical Reproduction.
7.45: Mails and Shipping.
7.48: What's on to-day?
7.50: Children's Birthday Calls.
8.0: Music from the Studio.
8.10: **CONDITION OF THE ROADS:** supplied by the Main Roads Board.
8.15: **CLOSE.**

MORNING SESSION AND AFTERNOON SESSION.

- 10.30: Announcements.
10.32: A.B.C. Racing Observer.
10.45: Studio Music.
11.0: **HOUSEHOLD HELPS:** Week-end suggestions by Miss Ruth Furst.
11.10: **CABLES—(Copyright) A.P.A. and "Sun"—"Herald" News Service.**
11.15: **AUSTRADIO MUSICAL REPRODUCTION.**
1. 53: British Official Wireless Press.
12.0: "Big Ben": Stock Exchange and Metal Quotations.
1. 5: Studio Music.
12.20: Midday Weather Forecast and Weather Synopsis.
12.30: Studio Music.
12.50: **FROM CANTERBURY:** Description of the Races in the running.
NOTE: Results from the Cricket Match, England v. Queensland, played at Brisbane, will be broadcast as received.
During intervals between races, a musical programme will be broadcast from the Studio.
4.35: **FROM THE STUDIO—Late Sporting Results.**
4.45: **CLOSE.**

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 6.45: Children's "Good-night" Stories, told by the "Hello Man," assisted by Aunt Willa and Cousin Gwen.
6.45: Dinner Hour Music.
7.20: A.B.C. Sporting Service.
7.25: Special Country Session. Stock Exchange Resumé. Markets. Weather Fore-

cast. Late News Service from the "Sun" and "News." Truck Bookings.
7.58: **To-night's Programme.**

THE EVENING PRESENTATION—8 to 11.30 p.m.

- The Choral offering through 2FC to-night by the Sydney Male Choir, from the Conservatorium, will make a wide appeal. 2BL's Programme on Popular Lines, offers a desirable contrast.
8.0: **FROM THE CONSERVATORIUM OF MUSIC—CONCERT ARRANGED BY THE SYDNEY MALE CHOIR.**
9.0: **FROM THE STUDIO—THE COUNTRY MAN'S WEATHER SESSION—**
(a) "New South Wales Forecasts."
(b) "Inter-State Weather Synopses." Yachtsman's and Fisherman's Forecast.
9.10: **FROM THE CONSERVATORIUM OF MUSIC—SECOND HALF OF CONCERT ARRANGED BY THE SYDNEY MALE CHOIR—**
10.0: **FROM THE BALLROOM OF THE ORIENTAL—**Sydney Simpson's Syncopaters in Dance Music.
10.15: **FROM THE STUDIO—Announcements.** Late Official Weather Forecast.
10.20: **FROM THE BALLROOM OF THE ORIENTAL—**Sydney Simpson's Syncopaters in Dance Music.
11.30: **CLOSE. NATIONAL ANTHEM.**

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 333 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
8.18: Music for every mood.
8.40: Meteorological data for the country.
8.45: Mails and shipping information.
8.50: Memory melodies.
9.0: This morning's story.
9.30: A musical interlude.
9.40: British official Wireless Press.
9.45: New music.
10.5: News from the "Daily Guardian."
10.10: Austradio musical reproduction.
10.40: **MR. G. COOPER,** park superintendent of city parks, will speak on "GARDENING."
11.0: G.P.O. chimes. Close down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
12.2: A pianoforte recital.
12.30: **LUNCH-HOUR MUSIC.**
1.0: Afternoon news from the "Evening News."
1.5: Austradio musical reproduction.
2.0: **J. KNIGHT BARNETT** at the "Wurlitzer."
2.12: Studio music

AFTERNOON ENTERTAINMENT—2.30 to 5.15 p.m.

- 2.30: **2BL INSTRUMENTAL TRIO.**
2.43: **LOIS EVANS,** soprano.
(a) "Gavotte" ("Manon" Massenet).
(b) "Lament of Isis" (Bantock).
2.49: **2BL INSTRUMENTAL TRIO.**
3.4: **AL SHAW,** jazz pianist.
(a) "Spring Fever" (Bloom).
(b) "Sweetheart of All My Dreams" (Fitch).
3.11: **2BL INSTRUMENTAL TRIO.**
3.26: **LOIS EVANS,** soprano.
(a) "Little Brown Owl" (Sanderson).
(b) "Break of Day" (Sanderson).
3.33: **2BL INSTRUMENTAL TRIO.**
3.48: **AL SHAW,** jazz pianist.
(a) "Patsy" (Perry).
(b) "I'll Always Be in Love With You" (Ruby).
2.55: **2BL INSTRUMENTAL TRIO.**
4.28: **DANCE ITEMS.**
4.45: Austradio musical reproduction.
5.0: Complete sporting and racing resume.
5.15: Close down.

THE DINNER HOUR—6.15 to 7.58 p.m.

- 6.15: **DINNER QUARTET.**
6.45: "THE CAPTAIN" to his comrades.
7.5: The A.B.C. Sporting Service.
7.20: **DINNER MUSIC.**
7.30: **FROM THE ARCADIA THEATRE. CHATSWOOD.**
Organ recital by Nicholas Robins.
7.58: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 12.0

Our sporting programme to-night is in sharp contrast with the choral music by the Sydney Male Choir, through 2FC service.

- 8.0: **THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.**
8.12: **DES TOOLEY,** The Girl with the Unusual Voice.
(a) "Down Among the Sugar Cane" (De Rose).
(b) "Sweetheart of All My Dreams" (Fitch).
(c) "An Old Italian Love Song" (Harrison).
8.19: **WALLY BARNES,** comedian.
8.29: **HAROLD HARRISON,** mouth-organ solos.
(a) March, "Old Comrades" (Telke).
(b) Medley, "Plantation Songs."
1. "Kentucky Home" (Foster).
2. "Poor Old Joe" (Foster).
3. "Swanee River" (Foster).
8.36: **TO-NIGHT'S BIG SPORTING FEATURE.**
9.36: Weather information for the man on the land.
9.38: **THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.**
9.48: **DES TOOLEY,** The Girl with the Unusual Voice.
(a) "High Upon the Hilltop" (Whiting).
(b) "Mean to Me" (Turk-Alert).
(c) "This is Heaven" (Akst).
9.55: **HAROLD HARRISON,** mouth-organ solos.
(a) "Destiny Waltz" (Baynes).
(b) "Over the Waves" waltz (Rosa).
10.2: **WALLY BARNES,** comedian.
10.12: **THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.**
10.25: Late news from the "Evening News." Late weather forecast.
10.30: **THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.**
12.0: **NATIONAL ANTHEM. CLOSE.**

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 3.0: Musical Session.
5.15: Children's Session by Uncle George.
7.0: **REQUEST HOUR.**
8.0: **MUSICAL SESSION.**
10.30: Close.

2UW

Radio Broadcasting, Ltd., Pallings Building, Ash St., Sydney (Wavelength, 261 Metres).

- 5.30 p.m.: Children's Hour, conducted by Uncle Jack.
6.30: Close.
7.0: Musical programme.
10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

CHILDREN'S SESSION

- 6 p.m.: Birthday calls, request numbers, and Kiddies' Entertainment. **AUNT JEMIMA AND UNCLE BERT.**

EVENING SESSION

- 7 p.m.: Musical interlude
7.5: Birthday calls.
7.15: **SPORTING FEATURE.** Turf topics: How they ran to-day.
7.50: Request numbers.
10.0: Closing announcements

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

- EARLY MORNING SESSION, 7.15 to 8.30,** as usual.

EVENING SESSION.

- 6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Turf Talk by Mr. T. Hopkins, Turf Expert. 7.45: Dinner Music. 8.0: Clock and Chimes. 8.1: Overture, "Orpheus in Hades." 8.10: Vocal and instrumental items. 10.30: Close down.

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Alpha De Luxe Vernier Dials, 6/6

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Hard Rubber Cases, 1 unit, perfect condition, 1 volts, usually £2/10/, Now 30/. 6 Volts, Usually 70/, Now 50/.

Like-a-Flash Perfect Vernier Dials, 5/6

Build Levenson's 3-valve Portable Set. A child could. Everything supplied. Cabinet, Valves, Speaker, Battery, etc. £7/17/6. Chart, 1/, free with all parts.

Renown Coil Kits, 10/6

Build Levenson's AC 3 Radio.
All parts cost £18/5/4. Anyone could build it. Simple Booklet, 1/. Free with parts.

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200,000 wire-wound Resistance, for volume control and eliminators, 8/-

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0 to 1 amp. Panel Meters, 3/6

Loop Aerial for indoor use, £10/10/ value. A splendid piece of workmanship. Now £2.

Marwol Rheostats, 1/9

Build Levenson's 3-valve Interstate Radio. All parts cost only £3/5/8. Valves, etc., extra. Charts, 6d, free with parts.

Record Bell-ringing Transformers, latest safe and improved model

Reinartz 3-Coil Tuner, 4/9

Charts for 1, 2, 3, 4, or 5 valve Sets. Six different makes of crystal sets, Eliminators, Chargers, A.C. Sets, etc., 6d each. Free with parts, 25 charts, 5/-.

De Jur 1930 Browning Drake Coil Kit, with fittings. Perfect in detail

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3/20 Copper	2/6
3/20 Enamel	3/6
7/20	5/6

De Jur Gramophone Pick-up, 52/6

Like-a-Flash Heavy Duty 45-volt "B" Batteries. 25/- value. Now 15/-. Vertical type. Never a complaint. The best selling battery offering.

Light Duty 45-volt B Batteries, 10/6

A few left. Amplion AR 19 Loud Speaker, £6 10/- list price. Never to be repeated at this price. Now 50/-.

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Wind any kind of coil. Latest coil winder, 32/6.

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AC Equipment.
Transformers for A.B.C. Pack, 35/-; Double Chokes, 25/-; 50 Henry Chokes, 8/6; Voltage Dividers, 7/6; C Bias Resistors, 3/8, 4/-; Variable Resistances, 5/-, 200,000 ohms, 500,000 ohms 8/6; A.B.C. Pack Gans, 6/6; Metal Panel Trays, 6/6; Cabinet, polished wood, 45/-; A.C. Set, illuminated dial, with etched plates, 12/6.

5-Valve Midget Kits, 5/-

Build your own safe "B" Battery Eliminator. A child could. Simple charts, 6d, free with parts. For sets up to 3 valves, £2/8/6. Everything. For sets over 3 valves, £4/5/6 Everything. Build Levenson's "A" Battery Charger. Not a trickle charger. Charges 2, 4, or 6 volt Batteries. All parts, 50/. Build in 15 minutes.

Silver Knight R.F. Choke, 5/6

Build Levenson's All-station Crystal Set, 28/6, all parts. Any child could build it. Cabinet 7/6 extra.
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Local Programmes, Sunday, December 1

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

- THE CHURCH HOUR**—10 a.m. to 12.30 p.m.
 10.0: Announcements.
 10.5: Studio Music.
 10.30: Thus Morning's News, from the "Sunday News," "Sunday Times," and "Truth." British Official Wireless Press.
 10.45: Musical Items.
 11.0: FROM ALL SAINTS' CHURCH OF ENGLAND, WOOLLAHRA—Morning Service, conducted by Rev. Canon W. Leslie Langley.
 12.15: Studio Music.
 12.30: CLOSE.
- AFTERNOON CONCERT**—3 p.m. to 4.30 p.m.
 3.0: FROM THE BALMAIN PRESBYTERIAN CHURCH—Sunday School Anniversary Service.
 4.30: CLOSE.
- THE EVENING PROGRAMME**—6 to 10.30 p.m.
 6.0: THE ALEXANDER QUARTET—Instrumentalists:
 (a) Selection, "Lowland" (D'Albert).
 (b) Selection, "Brahmsiana."

- (c) Excerpt from "Tristan and Isolde" (Wagner).
 (d) "Toreador and Andalous" (Rubinstein).
 (e) "Longing" (Schmalstich).
 (f) "Two Old English Tunes arranged by Roger Quilter."
 (g) "Minuet" (Moszkowski).
- 6.40: REAR-ADMIRAL EVANS will speak on "Convoys, Armed Boarding Steamers, and Mystery Ships."
- 7.0: THE ALEXANDER QUARTET—Instrumentalists:
 (a) "O Cease Thy Singing, Maiden Fair" (Rachmaninoff).
 (b) "In the Silence of Night" (Rachmaninoff).
 (c) "Love's Festival" (Weingartner).
 (d) "In the Canebroke" (Gardner).
 (e) "The Song I Love" (de Sylva).
 (f) "Klissing is No Sin" (Eyssler).
 (g) Selected.
- 7.30: C. N. BAEYERTZ will speak on "The Melody of Speech."
- 8.0: WILL PRIOR'S BROADCASTING ENSEMBLE—PRICE DUNLAVY AT THE GRAND ORGAN.
 10.0: MEDITATION MUSIC.
 10.30: CLOSE. NATIONAL ANTHEM.

- EVENING SESSION**—6 to 10 p.m.
 6.0: For children in hospital—Session conducted by Uncle Steve, assisted by Aunt Goodie and Cousin Marjorie.
 6.50: Organ music.
 7.15: FROM THE STANMORE METHODIST CHURCH—Evening service, conducted by Rev. C. J. Prescott, M.A., D.D.
 8.30: FROM THE STUDIO—Weather information for the man on the land.
 8.32: PROGRAMME OF CHAMBER MUSIC under the direction of Albert Cazabon, Musical Director of Prince Edward Theatre.
 Solo items by Jules Van der Klei, Alerto Cazabon, and Paul Vinogradoff.
 Song groups by Virginia Bassetti and Galsworthy's "Told by the Schoolmaster," by Brunton Gibb.
 10.0: NATIONAL ANTHEM. CLOSE

2GB

- Theosophical Broadcasting Station, 29 Blyth St., Sydney (Wavelength, 316 Metres).
 9.0: Address by Miss Mary Rivett.
 9.30: Address by Mr. Victor E. Cromer.
 10.0: Music from Studio.
 10.15: Organ Music from St. Alban's Church, Regent Street, Sydney.
 10.30: Morning service from St. Alban's Church.
 12 noon: Music from Studio.
 12.30: Close down.
 3.0: Musical Session.
 5.30: Children's Session by Uncle George.
 7.0: Lecture from St. Alban's Church.
 7.35: Lecture from Adyar House.
 8.15: CONCERT FROM ADYAR HOUSE.
 Miss Ada Brook, Pianiste.
 8.38: Miss Elsie Brown, soprano.
 8.45: Mr. Gregory Valentine, violinist.
 8.53: Mr. Austin Punch, baritone.
 9.0: Weather report.
 9.1: Miss Heather Kinnaird, contralto.
 9.2: Miss Ada Brook, pianiste.
 9.16: Miss Elsie Brown, soprano.
 9.23: Mr. Gregory Valentine, violinist.
 9.31: Mr. Austin Punch, baritone.
 9.38: Miss Heather Kinnaird, contralto.
 9.40: Address by Mr. Victor E. Cromer.
 9.45: Close down.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

- MIDDAY SESSION**—10.55 to 3 p.m.
 10.55: Announcements.
 11.0: FROM FULLERTON MEMORIAL CHURCH—Morning service, conducted by Rev. G. Cowie, B.A.—Organist, Mr. Ronald Marston, A.T.C.L. Organ Voluntary—"Largo in G" (Handel) Doxology. Scripture sentences. Prayer of Invocation. Praise.
 Psalm 23, "The Lord Is My Shepherd." Scripture reading.
 Contralto solo—"Open the Gates of the Temple" (Chappell). MISS BERTHA REYNOLDS.
 Talk to Boys and Girls.
 Children's Hymn, "If I Come to Jesus." Prayer.
 Announcements and offertory.
 Offertory Voluntary, "Spring Song" (Mendelssohn).
 Anthem, by the Fullerton Choir, "Praise Ye the Father" (Gounod).
 The Lord's Prayer.
 Hymn, "Tell Me the Old, Old Story."
 Sermon—Preacher, REV. G. COWIE, B.A.
 Baritone solo, "Consider and Hear Me" (Wooler). MR. ROGER JONES.
 Hymn, "O God Our Help In Ages Past."
 Benediction.
 Voluntary, "War March of the Priests" (Mendelssohn).
 12.15: FROM THE STUDIO—Musical items
 12.30: News from the "Sunday News," "Sunday Times," and "Truth."
 12.38: A specially arranged programme of instrumental music.
 2.15: The "Cheer-up" session, conducted by Uncle Frank.
 2.45: Austradio musical reproduction.
 3.0: Close down.
- LATE AFTERNOON**—4.30 to 6 p.m.
 4.30: GEMS FROM THE GREAT MASTERS, arranged by Madame Evelyn Grieg.
 4.45: PERCY E. WILTSHIRE, President of the Federation of the Parents and Citizens Association, will speak on "The Work and Value to the Community of the Parents and Citizens' Association."
 4.55: SUZANNE ENNIS, contralto—
 (a) "A Night Idyll" (Loughborough).
 (b) "Moorings" (Sanderson).
 5.2: SELECTIONS FROM A GRAND OPERA.
 5.10: C. N. BAEYERTZ continues his series, "Philosophic Thought, from Bacon to Bergson."
 5.30: WITH THE MODERN COMPOSERS arranged by Madame Evelyn Grieg.
 5.40: SUZANNE ENNIS, contralto—
 (a) "Ombra Mai Fu" (Handel).
 5.45: "Cheer-up" session, conducted by Uncle Frank.

2UW

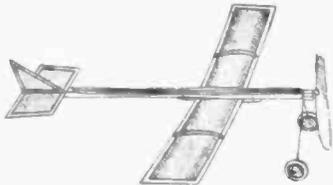
- Radio Broadcasting, Ltd., Paling's Building, Ash St., Sydney (Wavelength, 267 Metres).
 10.30 a.m.: Music and request numbers. 1 p.m.: Close.
 5.30: Children's Hour, conducted by Uncle Jack.
 6.30: Close.
 7.0: Musical programme.
 10.30: Close.

2UE

- Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).
MIDDAY SESSION.
 11.0: Mass from St. Mary's Cathedral.
 12.30: Musical programme. 1.0: Close down.
EVENING SESSION.
 6.0: Music from Radio House. 6.15: "Question Box Talks arranged by Rev. Dr. Rumble, M.S.C. 7.30: Evening Devotions from St. Mary's Cathedral. 8.15: Orchestral and Vocal Selections. 10.15: National Anthem.

ALAN BELL, a popular comedian in the early days of broadcasting, will be making a return visit to 3AR on December 4. Mr. Bell is a well-known figure on the concert platform, where his character studies of the country yokel are always appreciated.

CONTINUING her talks of "Your Health and Appearance," Miss Evelyn M. Ellis will speak from 3AR on December 5, and give "The Value of Sport in Your Everyday Life," when she will endeavor to show how a little time spent in regular conscientious exercise, will do more for the maintenance of good health, than an occasional afternoon devoted to strenuous sport.



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Interstate Programmes, Sun., Dec. 1

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

MORNING SESSION.

10.0: Time signal. 10.1: State election results. 10.20: Express train information. British official wireless news. Items of interest. 10.30: Bells of St. Paul's Cathedral. 10.45: "Australio" musical reproduction. 11.0: Morning service from Scots Church, Collins Street, Melbourne. Speaker, Dr. W. Borland, M.A., D.D. Subject, "The Sons of the Prophets." Anthem, "Comfort Ye My People," from "The Messiah" (Handel). 12.30: Close down.

AFTERNOON SESSION.

3.0: Pleasant Sunday afternoon from Wesley Church, Central Mission, conducted by Rev. J. H. Oain. Speaker, Justice Beaby. Subject, "Am I My Brother's Keeper?" Soloist, Miss Fyfe. 4.30: Close down.

THE CHILDREN'S CORNER.

6.0: "Brother Bill" and "Bobby Bluegum."

EVENING SESSION.

7.0: Edouard Lambert (violin) and Raymond Lambert (piano). Sonata for Piano and Violin in G Minor (Beethoven). 7.20: The Beauty Spoons of Australasia. Mr. W. T. McConnell. 7.35: Raymond Lambert, piano—"Rhapsody No. 6" (Liszt), "Claire de Lune" (Debussy). 7.45: Universal Safety, Mr. T. O.L. Reynolds, president, National Safety Council. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: Hamilton Webber and his musical ensemble, overture, "Mignon" (Ambroise Thomas); Arved Norfl, violin, "Serenade Columbine" (Pierne); Hamilton Webber and his musical ensemble, three scenes from village life, (a) "Promenade in Main Street" (Rapee Art), (b) "In the Poppy Fields" (Henry Hadley), (c) "A Revel on the Village Green" (Garbonara). Mimi Gressier, soprano, operatic aria; Frank Lanterman, selections on the grand organ; Alec. King, trumpet, "The Trumpeter"; Hamilton Webber and his musical ensemble, a selection of old and new song favorites; John Priora, tenor, operatic aria; Chas. McPhee, soprano, "Aileen" (Samella); Hamilton Webber and his musical ensemble, orchestral item, "Ballet Egyptienne" (Luigni), (a) "Alle-gro," (b) "Allegretto," (c) "Andante"; Arthur Dewar and his banjo, "Plantation Memories"; Frank Lanterman, organ recital; Charles Nicholson, bass, "Yeoman's Wedding Song"; Don Howley, cello, "The Swan" (Saint-Saens); Hamilton Webber and his musical ensemble, "Marche Militaire" (Schubert); Mimi Gressier and Charles Nicholson, duet, "O, That We Two Were Mating"; Hamilton Webber and his musical ensemble, selection from "Carmen" (Bizet).

10.20: News and weather.
10.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION.

11.0: Service from Wesley Church, Lonsdale Street, Melbourne. Sermon, Rev. J. H. Gatt.

MIDDAY SESSION.

12.30: A Studio programme of specially selected reproduced music. 2.0: Frank Lanterman at the Wur-litzer with assisting artists. 3.0: Close down.

AFTERNOON SESSION.

4.30: "Stradella Overture," Vassilla's Italian Band. 4.35: "Omid Fernando," from "La Favorita" (Donizetti), Karin Branzell, soprano. 4.42: "Rigoletto Paraphrase," Leopold Godowski, piano. 4.46: "Drink-ing Song," from "Hamlet," Giacomo Rimini, baritone. 4.50: "Prelude, Act III," from "Lohengrin" (Wagner), Cleveland Orchestra. 4.54: Duet from the garden scene from "Faust" (Gounod), Florence Easton and Mario Chamlee. 4.58: "Rondo Capriccioso" (Mendelssohn), Leopold Godowski, piano. 5.2: "The Lord is my Light" (Allister), Theo. Karle, tenor. 5.8: Prize story (Wagner-Wilhelm), Albert Spalding, violin. 5.10: "Largo al Factotum," from the Barber of Seville (Rossini), "Giacomo Rimini, baritone. 5.14: Selection from "Cavalleria Rusticana" (Mas-sagni), Metropolitan Opera House. 5.22: "Orfed ed Euridice" (Gluck), Sigisfred Olesin. 5.26: "Meditation" from "Thaïs" (Massenet), Max Rosen, violin. 5.30: The Week's Good Cause—Life Saving, Mr. A. P. Newey, secretary of the Royal Life Saving Society. 5.45: Piano recital. 5.55: "Christ in Flanders" (Stephens), Theo. Karle, tenor. 5.59: "Humoresque" (Dvorak), Max Rosen, violin. 6.2: "Oh, Divine Rede-mer!" (Gounod), Florence Easton and Fred Frad-kin. 6.7: "Wedding March" from "Lohengrin" (Wag-ner), Cleveland Orchestra. 6.11: Aria from "Faust" (Gounod). 6.15: Piano recital. 6.20: Request num-bers. 6.45: What's on the air to-night? 6.47: St. Paul's Cathedral bells.

EVENING SESSION.

7.0: Divine service from St. Paul's Cathedral, ser-mon by Canon Wheeler.

NIGHT SESSION.

8.30: Transmission from Sydney, relayed by 2BL. 9.58: Weather.
10.0: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

MORNING SESSION.

11.0: From St. Stephen's R.C. Cathedral, complete morning service.

AFTERNOON SESSION.

3.15: From the Botanic Gardens, band concert. 4.30: Close down.

EARLY EVENING SESSION.

6.0: A session for little listeners.

NIGHT SESSION.

7.30: From St. Stephen's R.C. Cathedral, evening service; band concert by the Municipal Concert Band. 9.30: Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

MORNING SESSION.

10.45: Carillon of bells from the Adelaide Town Hall. 11.0: Chimes. 11.1: Divine service from Rose Park Congregational Church—Minister, Rev. H. Watts Grimmer; organist, Mr. Stanley Brand. 12.10: From 5CL Studio—British official wireless news. 12.15: Close down.

AFTERNOON SESSION.

3.0: Chimes. 3.1: A Pleasant Sunday Afternoon service from Maughan Methodist Church, Franklin Street. 4.0: Close.

EVENING SESSION.

8.0: Chimes. 8.1: Birthday greetings. 8.15: "The Bird Lady" and her Choir. 8.45: Church choir num-bers. 7.1: Senior Birthday League greetings. Ser-vice from Unley Park Baptist Church—Minister, Rev. Donald Mc Nicol.

NIGHT SESSION.

8.20: Announcements. 8.30: Frank Roberts, Wur-litzer organist—"Estudi-antina Waltz" (Waldteufel). 8.37: Gordon Hele, baritone. 8.44: Guido Giacchino, cellist. 8.51: The Madrigal Singers—"Sleep, Noble Heart," "Golden Slumber Kiss Your Eyes." 8.58: Dave Howard, saxophonist (accompanied by Frank Roberts at the Wur-litzer organ). 9.5: Linda Wald, soprano. 9.12: Frank Roberts, Wur-litzer organist—"Br-cauro" (D'Hardelot), "La Donna e Mobile." 9.19: The Madrigal Singers—"Who is Sylvia?" "The Sons of the Volga Boatmen." 9.26: Guido Giacchino, cellist. 9.33: Norman Morphet, tenor. 9.40: Dave Howard, saxophonist (accompanied by Frank Roberts at the Wur-litzer organ). 9.47: Phyllis Everett, contralto. 9.55: News.
10.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

MORNING SESSION.—10.40: Sporting Resume. 10.50: News. 11.0: Church Service, St. Mary's Cathed-ral. 12.30: Musical reproduction. 1.0: Close.

AFTERNOON SESSION.—3.0: Chimes. 3.1: Musical Reproduction. 4.55: Features. 5.0: Close.

EVENING SESSION.—6.30: Children's Session. 7.15: Musical reproduction. 7.30: Baptist Church Service. 8.45: Special Musicale, Lillian Eugens, soprano; David Lyle, tenor. 10.30: Close down. God Save the King.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.0: Morning service from Davey Street Methodist Church, Hobart. 12.15: Close down. 3.30: A band concert by the Derwent Concert Band; conductor, T. W. Hopkins. 4.30: Close down. 6.15: Children's Chorus Singing; conductor, Trevor M. Morris. 6.45: Bertha Southey Brammall. 7.0: Evening service from St. David's Cathedral, Hobart. 8.30: A programme of sacred and classical music arranged by James Coun-sel. 9.45: News session. 9.50: Close down.

JACK HOUSTON, ventriloquist, is again broadcasting from 3LO on December 3, when he and his doll will indulge in some witty and topical cross talk. Mr. Houston embarked on a professional career when he won a vaudeville competition that carried a week's engagement as the first prize. One of the chief features of his bright and breezy turn is the original dialogue, the work of his own pen.

A MOST interesting talk for the older boys and girls will be given on December 4 by Mr. Alex. Smith, who, speaking on "Jobs for the Holidays," will tell the young people how to make the best use of the hour that usually hang so heavily. Holiday jobs are always fascinating, but, in the absence of any guidance or instruction, the youthful enthusiast is tempted to commence half a dozen things at once, and leave them all uncompleted. Mr. Smith, who has given many instructive talks over the air, will supply the necessary information, and boys and girls who want to know how profitably to employ their spare time, should make a point of listening on December 4.

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Interstate Programmes, Saturday, November 30

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.
7.0 to 8.15: As usual.

MORNING SESSION.
10.30 to 12.30: As usual.

MIDDAY SESSION.
1.0 to 1.30: As usual.

AFTERNOON SESSION.

2.0: Musical reproduction. 2.10: Description of Hurdle Race, 2 miles. Sandown Park races, by Eric Welch. 2.20: "Australdo" musical reproduction. 2.45: Description of cricket match. 3.10: Description of Sandown Park Plate, 6 furlongs. Sandown Park races, by Eric Welch. 3.20: Description of cricket match. 3.25: From Kooyong Tennis Courts, description of Inter-State tennis matches, by Mr. A. W. Dunlop. 3.45: Description of Summer Handicap, 1½ mile. Sandown Park races by Eric Welch. 3.50: From Kooyong Tennis Courts, description of Inter-State tennis matches, by Mr. A. W. Dunlop. 4.0: Melbourne Observatory time signal. Sporting results to hand. 4.5: "Australdo" musical reproduction. 4.10: Description of Sandown Purse, one mile. Sandown Park races by Eric Welch. 4.20: Description of cricket match. 4.30: From Kooyong Tennis Courts, description of Inter-State tennis matches, by Mr. A. W. Dunlop. 4.40: Description of Trial Welter Handicap, 6 furlongs. Sandown Park races, by Eric Welch. 4.50: Description of cricket match. 5.0: Melbourne Observatory time signal. Sporting results to hand. 5.10: From Kooyong Tennis Courts, description of Inter-State tennis matches, by Mr. A. W. Dunlop. 5.20: Description of cricket match. 5.30: Sporting results to hand. 5.35: Close down.

THE CHILDREN'S CORNER.

5.45: "Little Miss Kookaburra." After a musical Interlude, Miss Kookaburra will give the birthday

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greetings. 6.20: For the Older Boys and Girls—"Stamp Collecting." Mr. C. R. Franklin.

EVENING SESSION.

6.40: Sporting results. 6.55: Musical Interlude. 7.0: Melbourne Observatory time signal. 7.1: Countryman's Session. 7.25: Stories of the Mining Fields, "Chinese in the Diggings," Mr. Chas. Daley. 7.40: "The Herald" news service, cable news service (copyright, Sun-Herald News Service, Ltd., and Australian Press Association). 7.45: Wandering Around the World—Mexico (Early History), Mr. H. J. O. Esmonde. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: Transmission from Assembly Hall, Collins Street, Melbourne—Grand Concert by the Orpheon Chorists. 1. Choral Songs of England (R. Boughton)—(a) "Song of Our Fathers," (b) "Song of Evening" (first performance in Melbourne). 2. W. W. Cadzow, tenor—"Onaway, Awake, Beloved" (Coleridge-Taylor). 3. Choral Songs for Ladies' Voices—(a) "Pastorale" (G. Holst), (b) Two Eastern Pictures, (1) "Spring," (2) "Summer" (G. Holst), with harp accompaniment. 4. W. J. Barklam, flute—"Un Petit Rien" (Krantz), "Minuet" (Krantz), "Valse" (Chopin). 5. Choral—"I Love My Love" (G. Holst), Cornish Folk-song performance in Melbourne. 6. W. W. Cadzow, tenor—"O Mistress Mine"; "Blow, Blow Thou, Winter Wind," two Shakespearean songs by Roger Quilter.

8.55: Description of events at the Motordrome. 9.5: Progress results of State elections. 7. Choral Songs for Male Voices—Old English Songs (G. Bantock). 1. "Here's to the Maiden of Bashful Fifteen." 2. "Love Will Find Out the Way." 3. "Drink to Me Only with Thine Eyes." 4. "Here's a Health Unto His Majesty" (first performance in Melbourne). 8. W. J. Barklam, flute—"Le Rossignol" (Clardif). 9. Choral—Three Choral Hymns from the Rig-Veda (G. Holst)—(a) "Hymn to the Unknown God," (b) "Funeral Hymn," (c) "Battle Hymn." These were given for the first time in Melbourne by the Chorists in April of this year. 10.15: Progress results of the State elections. During intervals in the broadcasting of the election results Paul Jeacle and his Band will provide dance music from the Plaza Ballroom, St. Kilda. 12.0: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 181 Metres).

MORNING SESSION.
8.15 to 11.0: See Friday.

MIDDAY SESSION.
12.0 to 3.0: As usual.

THE RADIO MATINEE.

3.0: Paul Jeacle and his Band—"Sweetheart of All my Dreams" (Fitch), "Mother's Boy" (Green), 3.6: Ernest Wilson, baritone—"The Sailor's Paradise" (Richards), "The Stockrider's Song" (W. O. James), 3.13: Bruce Wite, piano, selected. 3.17: Courtney Ford and Ivy Davis, in musical comedy sketch, "After the Show." 3.27: Paul Jeacle and his Band—"Lonesome Little Doll" (Cowan), "My Troubles Are Over" (Monaco), selected. 3.35: Leslie Jephcott, tenor—"I Will Await Thee" (Coningsby Clarke), "Grey Days" (Johnson). 3.42: Bob Libbis, trombone, selected. 3.46: One-act play, "Death and Wisdom." Characters: Peggy Keenan, Irene Lascelles, Jim Wyman, Gerald Heathcote. Scene: A small dairy. Time: The present. 4.1: Paul Jeacle and his Band—"In a Kitchenette" (Duban), "Jericho" (Meyer), 4.7: Ernest Wilson, baritone—"Long Ago in Alaska" (Massager), "The Carpel" (Sanderson). 4.14: Piano novelty by an Absent Artist. 4.20: Courtney Ford and Ivy Davis, comedy sketch, "Writing a Play." 4.30: Paul Jeacle and his Band—"Dream of Love and You" (Taylor), "Lovely Little Bluebird" (Woodie), 4.36: Leslie Jephcott, tenor—"Songs of Araby" (Clay), "Our Little Home" (Coates). 4.43: Claude Jeacle, saxophone, selected. 4.47: Paul Jeacle and his Band—"The Toy-maker's Dream" (Golden), "Laughing Marionette" (Collins), "Speech" (Clare). 5.0: G.P.O. chimes. 5.1: "Australdo" musical reproduction. 5.30: Weather data. 5.45: Close down.

EVENING SESSION.

6.15: Dinner music, supplied by the Studio Light Orchestra. 7.30: What's on the air to-night? 7.32: Sporting results. 7.40: Latest musical releases. 8.0: G.P.O. chimes.

NIGHT SESSION.

8.1: A special programme has been arranged. 10.20: Weather and news. 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 383 Metres).

EARLY MORNING SESSION.
7.30 to 8.30: As usual. No Morning Session; no midday transmission.

AFTERNOON SESSION.

3.0 to 4.30: As usual.

EARLY EVENING SESSION.

6.10 to 7.30: As usual.

NIGHT SESSION.

8.0: The Aloha Trio, Hawaiian music; Elsie Hoopert (soprano), "April is a Lady"; John Morrison (entertainer), "An Irish Letter" (Abon); E. Sheridan (baritone), "You Will Never Grow Old" (Drummond); Hilda Woolmer (pianist), popular items; Alice Raven (contralto), "Ave Maria" (Mascagni); Helen M'Gregor Robertson (elocutionist), "The Amateur Rider" (Pat-

erson). Note—At suitable times during the evening the two semi-finals of the main event at Davies Park Speedway will be described in the running. 9.0: Metropolitan forecast. Aloha Trio, Hawaiian music; Elsie Hoopert (soprano), "Spring's Awakening"; John Morrison (entertainer), "Blinks Converter"; L. Sheridan (baritone), "Jack of All Trades" (Martin); Alice Raven (contralto), "Kathleen Ma'vourneen"; The Aloha Trio, Hawaiian melodies; Ernest Harper (baritone), "Pals" (Squire). 10.40: News; weather; close.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 469 Metres).

AFTERNOON SESSION.

12.0: Chimes. 12.1: Late selections for Flemington races by "Silvius." 12.3: Probable starters and selections for to-day's races at Gawler. 12.15: News; weather. 12.45: Recordings. 1.1: Flying piano session. 1.15: From Gawler, riders and positions for Handicap Trial Stakes, about 7½ furlongs. 1.20: Sandown Park race results. 1.30: Running description of the Handicap Trial Stakes. 1.55: Riders and positions of Handicap Hurdle Race, about 2 miles and 20 yards. 2.0: Aspendale Park race results. 2.10: Running description of Handicap Hurdle Race. 2.35: Riders and positions for November Handicap, 1½ mile. 2.50: Running description of November Handicap. 3.1: Resume of Sandown Park race results. 3.15: Riders and positions for Jumpers' Flat Race, one mile and three furlongs. 3.30: Running description of Jumpers' Flat Race. 3.55: Riders and positions for Welter Handicap, about 7½ furlongs. 4.0: Resume of Sandown Park race results. 4.10: Running description of Welter Handicap. 4.35: Riders and positions for Flying Handicap, six furlongs. 4.50: Running description of Flying Handicap. 4.55: Resume of Sandown Park race results. 4.59: Running description of Flying Handicap. 5.0: Close.

EVENING SESSION.

6.0 to 7.0: As usual. 7.10: Rev. G. E. Hale, B.A., will speak on "The Mind of Bernard Shaw." 7.25: Mr. C. G. Riley on "Items of Interest." 7.40: Resume of Victoria Park and Sandown Park race results; district cricket results; yachting, rowing, and tennis results; athletic results.

NIGHT SESSION.

8.0: The captains of the South Australian and Queensland teams will speak on "The Cricket Match." 8.5: A Talk on the Centenary of A. Rubinstein. Interpretations of his works will be played by Jean Finlay, L.A.B., pianist. 8.15: Haydn Male Quartette. 8.22: Cy Pier. 8.24: Netta Rodney, soubrette. 8.32: Pianoforte recital by Hans Bertram (blind pianist), who will play some of his own compositions. 8.40: Signor Torre, baritone—"Amore Amor" (Tirindelli), "Plange con me" (Tosti). 8.56: Cy Pier. 9.0: Alys Watson, soprano. 9.7: A play (produced by Phyllis Tier), in which Phyllis Tier and Gordon Madigan will take part. 9.23: Netta Rodney, soubrette. 9.30: Cy Pier. 9.37: Signor Torre, baritone—"Eri Tu" (Verdi), "O Sole Mio" (Di Capue). 8.44: Cy Pier. 9.49: Haydn Male Quartette. 9.56: Instrumental number. 10.3: Alys Watson, soprano. 10.10: Instrumental number. 10.20: Resume of Victoria Park and Sandown Park results; district cricket, yachting, rowing, and tennis results; athletic results. 10.30: Dance music. 11.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION. MORNING SESSION. MIDDAY SESSION. THE RADIO MATINEE. and EARLY EVENING SESSION, as usual.
EVENING SESSION.—8.0: Chimes. 8.1: Weather. 8.2: Cy Pier. 8.3: Description of Motor Cycle Races, broadcast from Speedway Meeting at Cemeront. 8.45: Exerson Banjo Troupe. 8.55: Announcements. 9.0: Weather. 9.1: Speedway. 9.30: Exerson Banjo Troupe. 9.40: Speedway. 10.0: Weather. 10.7: Dance Band. 10.59: Weather. 11.0: Chimes

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 116 Metres).

11.30 a.m.: Record recital. 11.34: Midlands Weather report. 11.35: Record recital. 11.55: Tasmanian Stations' 9 a.m. Weather Report. 12.1: Shipping, Mail Notices, Housewives' Guide, 12.8: Sonora Recital. 12.30: Railway Auction Sales. 1.10: Record Recital. 1.30: Close down. 3.0: Transmission from the T.C.A. Ground—Cricket Match A Grade, Sandy Bay v. New Town, described by Sid Jones. 5.10: All Sporting Results to hand. 5.15: Close down. During the afternoon all sporting results will be given. 6.10: All Sporting Results. 6.25: Children's Corner, with "Uncle David." 7.10: Recorded Music. 7.40: Roy Johnson will speak on "Tasmania Trailing." James Council will speak on "European Affairs." 8.1: Record Recital. 8.15: A Concert Programme arranged by Madame Lucie Benson. 9.30: Record Recital. 10.20: Close.

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Local Programmes, Monday, December 2

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and Meteorological information for the man on the land.
7.3: This Morning's News, from the "Sydney Morning Herald."
7.8: Austradio Musical Reproduction.
7.45: Mails and Shipping.
7.48: What's on to-day?
7.50: Children's Birthday Calls.
8.0: Music from the Studio.
8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
10.32: A.B.C. Racing Observer.
10.45: HORACE WEBER at the GRAND ORGAN.
11.0: HOUSEHOLD HELPS: Cooking, by Miss Ruth Furst.
11.10: CABLES (copyright)—"Sun"—"Herald" and A.P.A. News Service.
11.15: MORNING DEVOTION.
11.30: Austradio Musical Reproduction.
11.53: British Official Wireless Press.
12.0: "Big Ben." Stock Exchange and Metal Quotations.
12.5: V. C. BELL will speak from "The Public Forum."
12.20: Midday weather forecast and weather synopsis. Special produce market session for the man on the land, supplied by the State Marketing Board.
12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch Hour Music.
2.0: Stock Exchange, second call.
2.2: A Glance at the afternoon "Sun" and "News."
2.7: Studio Music.
2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- FROM THE 1929 RADIO DISPLAY AT THE STATE SHOPPING BLOCK.
NOTE: Results from the Cricket Match England v. Queensland, played at Brisbane will be broadcast as received.
2.30: Austradio Musical Reproduction.
3.0: EDUCATIONAL SESSION, under the auspices of the Department of Public Instruction—Mr. E. Breakwell, Supervisor of School of Agriculture, will speak on "Desirable Features in Flower Gardens."
3.15: Mr. H. F. Treharne, Supervisor of Music, will speak on "British Musicians."
3.30: GEMS FROM THE GREAT MASTERS
3.45: MARJORIE COLE, Soprano—
(a) "I Love Thee" (Grieg).
(b) "Chinese Flower" (Bowers).
(c) "Lady of Love" (Zamecnik).
3.52: A MODERN COMPOSITION.
4.0: A TALK BY MRS. MILDRED MUSCIO. "The Children's Charter."
4.15: OLD WORLD MELODIES.
4.28: Stock Exchange, third call.
4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Good-night" Stories, told by the "Hello Man," assisted by Aunt Eily.
6.45: Dinner Hour Music.
7.20: A.B.C. Sporting Service.
7.25: Special Country Session. Stock Exchange Resume. Markets. Weather forecast. Late News Service from the "Sun" and "News." Truck bookings.
7.58: To-night's Programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- In response to repeated requests Alfred Hill's One-act Opera, "Teora," will be repeated through 2FC Service, and will be relayed to 3LO Melbourne. The production of the Opera will be preceded by a Concert Programme.
Through 2BL Service items by the Dulwich Hill Band; Goodie Reeve in "Something Different." Songs and Comedy Numbers will provide a popular contrast.
8.0: THE NATIONAL BROADCASTING ORCHESTRA, conducted by Alfred Hill—"Maori Rhapsody."

- 8.10: NORMAN FRANCIS, Tenor—Tenor Aria from "Auster."
8.18: STRING QUARTETTE—"Maori Quartette—No. 2, in G Minor" (Two Movements).
8.28: MAY CRAVEN, Soprano—"Ballad from Hinemoa" (Orchestral Accompaniment).
8.36: THE NATIONAL BROADCASTING ORCHESTRA—
(a) "A Maori Lament."
(b) "Walata Maori."
(c) "Walata Pol."
8.46: WILFRED THOMAS, Basso—"Tangi" (Orchestral Accompaniment).
8.54: STRING QUARTETTE—Last Two Movements from "Maori Quartette."
9.4: HAROLD TOLLEMACHE—"Whaka ariki" (War Song from "Tapu").
9.12: THE COUNTRY MAN'S WEATHER SESSION—
(a) New South Wales Forecasts.
(b) Interstate Weather Synopsis.
(c) Yachtsman's and Fisherman's Forecast.
9.15: FOREWORD BY ALFRED HILL—

"TEORA,"
or
"THE ENCHANTED FLUTE,"
AN OPERA,
By ALFRED HILL.

THE STORY:

Tainui, a Maori chief, after many encounters, has slain Pomare, leader of a rival tribe, and to degrade the memory of his fallen foe has made a flute from his armbone. Playing on this, he hears the voice of the dead, and in consternation seeks to discover what has bewitched his flute. Waipata, Tainui's son, has been sent to Pomare's pah to make the daughter of the vanquished chief, Teora, captive, but falls in love with her. Tainui breaks in upon their love scene, is furious, suspects the girl of sorcery, and vows to put them both to death. Father and son fight, but are interrupted by Tohunga, who suggests that Teora be put to the test of the Triaha, a sacred weapon, which of itself moves towards persons innocent of witchcraft. The test exonerates Teora. Tainui's thoughts hark back to the flute, which he tries to pick up. Once again the spirit voice mocks him, driving him to a frenzy which ends in his death.

- 9.25: THE CAST OF "TEORA"—OPERA, directed by Joseph M. Post:
Teora May Craven
Tohunga Wilfred Thomas
Tainui Harold Tollemache
Waipata Norman Francis
Spirit of Pomare Emil Sussmilch

- 10.15: Announcements.
Late Official Weather Forecast.
10.20: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in Dance Music.
11.30: CLOSE. NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
8.16: Music for every mood.
8.40: Meteorological data for the country.
8.45: Mails and shipping information.
8.50: Memory melodies.
9.0: This morning's story.
9.30: A musical interlude.
9.40: British Official Wireless Press.
9.45: New music.

FROM THE 1929 RADIO DISPLAY, AT THE STATE SHOPPING BLOCK.

- 10.5: News from the "Sydney Morning Herald."
10.10: Austradio musical reproduction.
10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.
11.0: G.P.O. chimes. Close down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
12.2: A pianoforte recital.
12.30: LUNCH-HOUR MUSIC.
1.0: Afternoon news from "The Sun" and "Evening News."
1.5: Austradio musical reproduction.
2.0: J. KNIGHT BARNETT at the "Wurlitzer."
2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: Business efficiency talk.
2.45: RADIO RHYTHM.
3.0: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
3.12: FROM THE STUDIO—DORIS LASCELLES, entertainer. "Reggie" (anonymous).
3.19: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
3.30: FROM THE STUDIO—MODERN MUSIC.
3.45: MICHAEL SAWTELL. "In Tune with the Infantile."
4.0: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
4.12: FROM THE STUDIO—DORIS LASCELLES, entertainer. "The Usual Way" (Weatherley).
4.19: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
4.30: FROM THE STUDIO—Austradio musical reproduction.
4.45: The Trade Hour—demonstration music.
5.45: Weather information. Close down.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
6.45: THE BOYS' AERO CLUB, conducted by Mr. Norman Lyons.
7.5: The Country Man's market session. Wool, wheat, stock, farm produce, fruit, and vegetable markets.
7.20: DINNER MUSIC.
7.45: Austradio musical reproduction.
7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

2BL is featuring band music to-night, and the programme arranged by the Dulwich Hill Band is unusually attractive. Goodie Reeve in "Something Different," adds a spice of mystery, and there is a talk on the forthcoming water polo contest, at the Domain Baths.

Through 2FC service, Alfred Hill's one-act opera, "Teora," will, in response to many requests, be produced for the second time, and will be relayed to 3LO, Melbourne.

- 8.0: DULWICH HILL BAND.
(a) Selection. "Songs of Ireland" (Streeton).
(b) Selection, "Adoration" (Ball).
8.15: 2BL'S WEEKLY SOUND FILM FEATURE.
8.30: EDWARD SALMON, tenor.
8.37: DISMAL DESMOND, the Lugubrious Wit.
8.44: FOSTER and FINLAY, musical entertainers.
(a) "She's Funny That Way" (Moret).
(b) "Kiss Me Again" (Herbert).
(c) "Dance of the Paper Dolls" (Siras).
8.54: DULWICH HILL BAND.
(a) Selection. "Comrades in Arms" (Adam).
(b) Duet for trombone and euphonium. "Larboard Watch" (arr. Hawkes).
9.6: GOODIE REEVE in "SOMETHING DIFFERENT."

- 9.21: FOSTER and FINLAY. musical entertainers.
 (a) "Walking with Susie" (Gottler).
 (b) "A Kiss—a Caress—then Adieu" (Sharp).
 (c) "Um-tcha—um-tcha—Da-da-da" (Blight).
 9.28: Weather information for the man on the land.
 9.30: DULWICH HILL BAND.
 (a) March, "Under Two Flags" (Coles).
 (b) March "America" (Hawkes).
 9.42: EDWARD SALMON, tenor.
 9.49: DISMAL DESMOND, the Lugubrious Wit.
 9.56: DULWICH HILL BAND.
 Selection, "Memories of the Masters" (arr. Hawkes).
 10.6: A talk on the forthcoming water polo season.
 10.16: MODERN MUSIC.
 10.25: Late news from "The Sun" and "Evening News."
 Late weather forecast.
 10.30: NATIONAL ANTHEM. CLOSE

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 2.0 to 3.30, 5.15 to 8.0: As usual.
 8.0: Miss Mary Neal, contralto.
 8.7: Symphony Orchestra.
 8.15: Mr. Len Howell, tenor.
 8.22: Band selection.
 8.30: Miss Mary Mulconry, soprano.
 8.37: Mr. Jack Win and Mr. Heath Burdock, humour.
 8.40: Violin solo.
 8.45: Address.
 9.0: Weather report.
 9.1: Miss Mary Neal, contralto.
 9.10: Symphony Orchestra.
 9.20: Mr. Len Howell, tenor.
 9.30: Mr. Jack Win and Mr. Heath Burdock, humour.
 9.35: Band Selections.
 9.45: Miss Mary Mulconry, soprano.
 9.55: Violin solos.
 10.0: Instrumental Music.
 10.30: Close.

2UW

Radio Broadcasting, Ltd., Paling's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION

12.30 to 4.30 as usual.

EVENING SESSION

- 5.30: Children's Hour, conducted by Uncle Jack.
 6.30: The Meccano Club. Close.
 6.45: Close.
 7.0: Request numbers.
 7.45: Radio talk by Mr. E. Homfray.
 8.0: Light Orchestral Concert.
 9.0: Comments on Foreign Affairs, by Mr. J. M. Prentice.
 9.10: Music.
 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 289 Metres).

10.0 to noon, and Children's Session, as usual.

EVENING SESSION

- 7.0 p.m.: Musical Interlude.
 7.15: Dance Music.
 7.30: A talk on Gardening. Mr. G. L. GIL-LATLY.
 7.45: Militant Women's Group.
 8.0: Overture.
 8.8: Tenor Solos.
 8.15: Dance Music.
 8.30: Request numbers.
 8.45: Soprano Solos, MISS WRIGHT.
 9.0: Novelty Interludes.
 9.10: Selections of latest Parlophone, Columbia, Regal, Brunswick.
 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION.

- 7.15: Breakfast Time Hour Orchestral Music. 8.0: Clock and Chimes, 8.1: Music
 8.30: Weather Report. Close down.
 (No Evening Session.)

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Local Programmes, Sunday, December 1

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

- THE CHURCH HOUR**—10 a.m. to 12.30 p.m.
 10.0: Announcements.
 10.5: Studio Music.
 10.30: Thus Morning's News, from the "Sunday News," "Sunday Times," and "Truth." British Official Wireless Press.
 10.45: Musical Items.
 11.0: FROM ALL SAINTS' CHURCH OF ENGLAND, WOOLLAHRA—Morning Service, conducted by Rev. Canon W. Leslie Langley.
 12.15: Studio Music.
 12.30: CLOSE.
- AFTERNOON CONCERT**—3 p.m. to 4.30 p.m.
 3.0: FROM THE BALMAIN PRESBYTERIAN CHURCH—Sunday School Anniversary Service.
 4.30: CLOSE.
- THE EVENING PROGRAMME**—6 to 10.30 p.m.
 6.0: THE ALEXANDER QUARTET—Instrumentalists:
 (a) Selection, "Lowland" (D'Albert).
 (b) Selection, "Brahmsiana."

- (c) Excerpt from "Tristan and Isolde" (Wagner).
 (d) "Toreador and Andalous" (Rubinstein).
 (e) "Longing" (Schmalstich).
 (f) "Two Old English Tunes arranged by Roger Quilter."
 (g) "Minuet" (Moszkowski).
- 6.40: REAR-ADMIRAL EVANS will speak on "Convoys, Armed Boarding Steamers, and Mystery Ships."
- 7.0: THE ALEXANDER QUARTET—Instrumentalists:
 (a) "O Cease Thy Singing, Maiden Fair" (Rachmaninoff).
 (b) "In the Silence of Night" (Rachmaninoff).
 (c) "Love's Festival" (Weingartner).
 (d) "In the Canebroke" (Gardner).
 (e) "The Song I Love" (de Sylva).
 (f) "Klissing is No Sin" (Eyssler).
 (g) Selected.
- 7.30: C. N. BAEYERTZ will speak on "The Melody of Speech."
- 8.0: WILL PRIOR'S BROADCASTING ENSEMBLE—PRICE DUNLAVY AT THE GRAND ORGAN.
 10.0: MEDITATION MUSIC.
 10.30: CLOSE. NATIONAL ANTHEM.

- EVENING SESSION**—6 to 10 p.m.
 6.0: For children in hospital—Session conducted by Uncle Steve, assisted by Aunt Goodie and Cousin Marjorie.
 6.50: Organ music.
 7.15: FROM THE STANMORE METHODIST CHURCH—Evening service, conducted by Rev. C. J. Prescott, M.A., D.D.
 8.30: FROM THE STUDIO—Weather information for the man on the land.
 9.32: PROGRAMME OF CHAMBER MUSIC under the direction of Albert Cazabon, Musical Director of Prince Edward Theatre.
 Solo items by Jules Van der Klei, Alceort Cazabon, and Paul Vinogradoff.
 Song groups by Virginia Bassetti and Galsworthy's "Told by the Schoolmaster," by Brunton Gibb.
 10.0: NATIONAL ANTHEM. CLOSE

2GB

- Theosophical Broadcasting Station, 29 Blyth St., Sydney (Wavelength, 316 Metres).
 9.0: Address by Miss Mary Rivett.
 9.30: Address by Mr. Victor E. Cromer.
 10.0: Music from Studio.
 10.15: Organ Music from St. Alban's Church, Regent Street, Sydney.
 10.30: Morning service from St. Alban's Church.
 12 noon: Music from Studio.
 12.30: Close down.
 3.0: Musical Session.
 5.30: Children's Session by Uncle George.
 7.0: Lecture from St. Alban's Church.
 7.35: Lecture from Adyar House.
 8.15: CONCERT FROM ADYAR HOUSE.
 Miss Ada Brook, Pianiste.
 8.38: Miss Elsie Brown, soprano.
 8.45: Mr. Gregory Valentine, violinist.
 8.53: Mr. Austin Punch, baritone.
 9.0: Weather report.
 9.1: Miss Heather Kinnaird, contralto.
 9.2: Miss Ada Brook, pianiste.
 9.16: Miss Elsie Brown, soprano.
 9.23: Mr. Gregory Valentine, violinist.
 9.31: Mr. Austin Punch, baritone.
 9.38: Miss Heather Kinnaird, contralto.
 9.40: Address by Mr. Victor E. Cromer.
 9.45: Close down.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

- MIDDAY SESSION**—10.55 to 3 p.m.
 10.55: Announcements.
 11.0: FROM FULLERTON MEMORIAL CHURCH—Morning service, conducted by Rev. G. Cowie, B.A.—Organist, Mr. Ronald Marston, A.T.C.L. Organ Voluntary—"Largo in G" (Handel) Doxology. Scripture sentences. Prayer of Invocation. Praise.
 Psalm 23, "The Lord Is My Shepherd." Scripture reading.
 Contralto solo—"Open the Gates of the Temple" (Chappell). MISS BERTHA REYNOLDS.
 Talk to Boys and Girls.
 Children's Hymn, "If I Come to Jesus." Prayer.
 Announcements and offertory.
 Offertory Voluntary, "Spring Song" (Mendelssohn).
 Anthem, by the Fullerton Choir, "Praise Ye the Father" (Gounod).
 The Lord's Prayer.
 Hymn, "Tell Me the Old, Old Story."
 Sermon—Preacher, REV. G. COWIE, B.A.
 Baritone solo, "Consider and Hear Me" (Wooler). MR. ROGER JONES.
 Hymn, "O God Our Help In Ages Past."
 Benediction.
 Voluntary, "War March of the Priests" (Mendelssohn).
 12.15: FROM THE STUDIO—Musical items
 12.30: News from the "Sunday News," "Sunday Times," and "Truth."
 12.38: A specially arranged programme of instrumental music.
 2.15: The "Cheer-up" session, conducted by Uncle Frank.
 2.45: Austradio musical reproduction.
 3.0: Close down.
- LATE AFTERNOON**—4.30 to 6 p.m.
 4.30: GEMS FROM THE GREAT MASTERS, arranged by Madame Evelyn Grieg.
 4.45: PERCY E. WILTSHIRE, President of the Federation of the Parents and Citizens Association, will speak on "The Work and Value to the Community of the Parents and Citizens' Association."
 4.55: SUZANNE ENNIS, contralto—
 (a) "A Night Idyll" (Loughborough).
 (b) "Moorings" (Sanderson).
 5.2: SELECTIONS FROM A GRAND OPERA.
 5.10: C. N. BAEYERTZ continues his series, "Philosophic Thought, from Bacon to Bergson."
 5.30: WITH THE MODERN COMPOSERS arranged by Madame Evelyn Grieg.
 5.40: SUZANNE ENNIS, contralto—
 (a) "Ombra Mai Fu" (Handel).
 5.45: "Cheer-up" session, conducted by Uncle Frank.

2UW

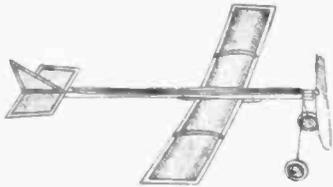
- Radio Broadcasting, Ltd., Paling's Building, Ash St., Sydney (Wavelength, 267 Metres).
 10.30 a.m.: Music and request numbers. 1 p.m.: Close.
 5.30: Children's Hour, conducted by Uncle Jack.
 6.30: Close.
 7.0: Musical programme.
 10.30: Close.

2UE

- Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).
MIDDAY SESSION.
 11.0: Mass from St. Mary's Cathedral.
 12.30: Musical programme. 1.0: Close down.
EVENING SESSION.
 6.0: Music from Radio House. 6.15: "Question Box Talks arranged by Rev. Dr. Rumble, M.S.C. 7.30: Evening Devotions from St. Mary's Cathedral. 8.15: Orchestral and Vocal Selections. 10.15: National Anthem.

ALAN BELL, a popular comedian in the early days of broadcasting, will be making a return visit to 3AR on December 4. Mr. Bell is a well-known figure on the concert platform, where his character studies of the country yokel are always appreciated.

CONTINUING her talks of "Your Health and Appearance," Miss Evelyn M. Ellis will speak from 3AR on December 5, and give "The Value of Sport in Your Everyday Life," when she will endeavor to show how a little time spent in regular conscientious exercise, will do more for the maintenance of good health, than an occasional afternoon devoted to strenuous sport.



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Interstate Programmes, Sun., Dec. 1

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

MORNING SESSION.

10.0: Time signal. 10.1: State election results. 10.20: Express train information. British official wireless news. Items of interest. 10.30: Bells of St. Paul's Cathedral. 10.45: "Australio" musical reproduction. 11.0: Morning service from Scots Church, Collins Street, Melbourne. Speaker, Dr. W. Borland, M.A., D.D. Subject, "The Sons of the Prophets." Anthem, "Comfort Ye My People," from "The Messiah" (Handel). 12.30: Close down.

AFTERNOON SESSION.

3.0: Pleasant Sunday afternoon from Wesley Church, Central Mission, conducted by Rev. J. H. Oain. Speaker, Justice Beaby. Subject, "Am I My Brother's Keeper?" Soloist, Miss Fyfe. 4.30: Close down.

THE CHILDREN'S CORNER.

6.0: "Brother Bill" and "Bobby Bluegum."

EVENING SESSION.

7.0: Edouard Lambert (violin) and Raymond Lambert (piano). Sonata for Piano and Violin in G Minor (Beethoven). 7.20: The Beauty Spoons of Australasia. Mr. W. T. McConnell. 7.35: Raymond Lambert, piano—"Rhapsody No. 6" (Liszt), "Claire de Lune" (Debussy). 7.45: Universal Safety, Mr. T. O.L. Reynolds, president, National Safety Council. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.

8.0: Hamilton Webber and his musical ensemble, overture, "Mignon" (Ambroise Thomas); Arved Norfl, violin, "Serenade Columbine" (Pierne); Hamilton Webber and his musical ensemble, three scenes from village life, (a) "Promenade in Main Street" (Rapee Art), (b) "In the Poppy Fields" (Henry Hadley), (c) "A Revel on the Village Green" (Garbonara). Mimi Gressier, soprano, operatic aria; Frank Lanterman, selections on the grand organ; Alec. King, trumpet, "The Trumpeter"; Hamilton Webber and his musical ensemble, a selection of old and new song favorites; John Priora, tenor, operatic aria; Chas. McPhee, soprano, "Aileen" (Samella); Hamilton Webber and his musical ensemble, orchestral item, "Ballet Egyptienne" (Luigni), (a) "Alle-gro," (b) "Allegretto," (c) "Andante"; Arthur Dewar and his banjo, "Plantation Memories"; Frank Lanterman, organ recital; Charles Nicholson, bass, "Yeoman's Wedding Song"; Don Howley, cello, "The Swan" (Saint-Saens); Hamilton Webber and his musical ensemble, "Marche Militaire" (Schubert); Mimi Gressier and Charles Nicholson, duet, "O, That We Two Were Mating"; Hamilton Webber and his musical ensemble, selection from "Carmen" (Bizet).

10.20: News and weather.
10.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION.

11.0: Service from Wesley Church, Lonsdale Street, Melbourne. Sermon, Rev. J. H. Gatt.

MIDDAY SESSION.

12.30: A Studio programme of specially selected reproduced music. 2.0: Frank Lanterman at the Wur-litzer with assisting artists. 3.0: Close down.

AFTERNOON SESSION.

4.30: "Stradella Overture," Vassilla's Italian Band. 4.35: "Omid Fernando," from "La Favorita" (Donizetti), Karin Branzell, soprano. 4.42: "Rigoletto Paraphrase," Leopold Godowski, piano. 4.46: "Drink-ing Song," from "Hamlet," Giacomo Rimini, baritone. 4.50: "Prelude, Act III," from "Lohengrin" (Wagner), Cleveland Orchestra. 4.54: Duet from the garden scene from "Faust" (Gounod), Florence Easton and Mario Chamlee. 4.58: "Rondo Capriccioso" (Mendelssohn), Leopold Godowski, piano. 5.2: "The Lord is my Light" (Allister), Theo. Karle, tenor. 5.8: Prize story (Wagner-Wilhelm), Albert Spalding, violin. 5.10: "Largo al Factotum," from the Barber of Seville (Rossini), "Giacomo Rimini, baritone. 5.14: Selection from "Cavalleria Rusticana" (Mas-sagni), Metropolitan Opera House. 5.22: "Orfed ed Euridice" (Gluck), Sigisfred Olesin. 5.26: "Meditation" from "Thaïs" (Massenet), Max Rosen, violin. 5.30: The Week's Good Cause—Life Saving, Mr. A. P. Newey, secretary of the Royal Life Saving Society. 5.45: Piano recital. 5.55: "Christ in Flanders" (Stephens), Theo. Karle, tenor. 5.59: "Humoresque" (Dvorak), Max Rosen, violin. 6.2: "Oh, Divine Rede-mer!" (Gounod), Florence Easton and Fred Frad-kin. 6.7: "Wedding March" from "Lohengrin" (Wag-ner), Cleveland Orchestra. 6.11: Aria from "Faust" (Gounod). 6.15: Piano recital. 6.20: Request num-bers. 6.45: What's on the air to-night? 6.47: St. Paul's Cathedral bells.

EVENING SESSION.

7.0: Divine service from St. Paul's Cathedral, ser-mon by Canon Wheeler.

NIGHT SESSION.

8.30: Transmission from Sydney, relayed by 2BL. 9.58: Weather.
10.0: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

MORNING SESSION.

11.0: From St. Stephen's R.C. Cathedral, complete morning service.

AFTERNOON SESSION.

3.15: From the Botanic Gardens, band concert. 4.30: Close down.

EARLY EVENING SESSION.

6.0: A session for little listeners.

NIGHT SESSION.

7.30: From St. Stephen's R.C. Cathedral, evening service; band concert by the Municipal Concert Band. 9.30: Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

MORNING SESSION.

10.45: Carillon of bells from the Adelaide Town Hall. 11.0: Chimes. 11.1: Divine service from Rose Park Congregational Church—Minister, Rev. H. Watts Grimmer; organist, Mr. Stanley Brand. 12.10: From 5CL Studio—British official wireless news. 12.15: Close down.

AFTERNOON SESSION.

3.0: Chimes. 3.1: A Pleasant Sunday Afternoon service from Maughan Methodist Church, Franklin Street. 4.0: Close.

EVENING SESSION.

8.0: Chimes. 8.1: Birthday greetings. 8.15: "The Bird Lady" and her Choir. 8.45: Church choir num-bers. 7.1: Senior Birthday League greetings. Ser-vice from Unley Park Baptist Church—Minister, Rev. Donald Mc Nicol.

NIGHT SESSION.

8.20: Announcements. 8.30: Frank Roberts, Wur-litzer organist—"Estudi-antina Waltz" (Waldteufel). 8.37: Gordon Hele, baritone. 8.44: Guido Giacchino, cellist. 8.51: The Madrigal Singers—"Sleep, Noble Heart," "Golden Slumber Kiss Your Eyes." 8.58: Dave Howard, saxophonist (accompanied by Frank Roberts at the Wur-litzer organ). 9.5: Linda Wald, soprano. 9.12: Frank Roberts, Wur-litzer organist—"Br-cauro" (D'Hardelot), "La Donna e Mobile." 9.19: The Madrigal Singers—"Who is Sylvia?" "The Sons of the Volga Boatmen." 9.26: Guido Giacchino, cellist. 9.33: Norman Morphett, tenor. 9.40: Dave Howard, saxophonist (accompanied by Frank Roberts at the Wur-litzer organ). 9.47: Phyllis Everett, contralto. 9.55: News.
10.0: Close.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

MORNING SESSION.—10.40: Sporting Resume.

10.50: News. 11.0: Church Service, St. Mary's Cathed-ral. 12.30: Musical reproduction. 1.0: Close.

AFTERNOON SESSION.—3.0: Chimes. 3.1: Musical reproduction. 4.55: Features. 5.0: Close.

EVENING SESSION.—6.30: Children's Session. 7.15: Musical reproduction. 7.30: Baptist Church Service. 8.45: Special Musicale, Lillian Eugens, soprano; David Lyle, tenor. 10.30: Close down. God Save the King.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.0: Morning service from Davey Street Methodist Church, Hobart. 12.15: Close down. 3.30: A band concert by the Derwent Concert Band; conductor, T. W. Hopkins. 4.30: Close down. 6.15: Children's Chorus Singing; conductor, Trevor M. Morris. 6.45: Bertha Southey Brammall. 7.0: Evening service from St. David's Cathedral, Hobart. 8.30: A programme of sacred and classical music arranged by James Coun-sel. 9.45: News session. 9.50: Close down.

JACK HOUSTON, ventriloquist, is again broadcasting from 3LO on December 3, when he and his doll will indulge in some witty and topical cross talk. Mr. Houston embarked on a professional career when he won a vaudeville competition that carried a week's engagement as the first prize. One of the chief features of his bright and breezy turn is the original dialogue, the work of his own pen.

A MOST interesting talk for the older boys and girls will be given on December 4 by Mr. Alex. Smith, who, speaking on "Jobs for the Holidays," will tell the young people how to make the best use of the hour that usually hang so heavily. Holiday jobs are always fascinating, but, in the absence of any guidance or instruction, the youthful enthusiast is tempted to commence half a dozen things at once, and leave them all uncompleted. Mr. Smith, who has given many instructive talks over the air, will supply the necessary information, and boys and girls who want to know how profitably to employ their spare time, should make a point of listening on December 4.

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Interstate Programmes, Monday, December 2

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).
EARLY MORNING SESSION.
 7.0 to 8.15: See Friday.
MORNING SESSION.
 10.30 to 12.30: As usual.
MIDDAY SESSION.
 1.0 to 1.15: As usual. 1.30: Transmission from Constitutional Club luncheon.
EDUCATIONAL SESSION.
 2.0: The Earth We Live On. Mr. W. C. Groves, B.A., Dip. Ed. 2.15: Musical interlude. 2.20: Science in Everyday Life. Dr. Loftus Hills, D.Sc. 2.35: Musical interlude. 2.40: Our Australian Writers. Mr. P. Willmott. 2.55: Musical interlude. 3.0: Melbourne Observatory time signal.

THE RADIO MATINEE.

3.0: Paul Jeacle and his Band—"I'm Just in the Mood To-night" (Leslie), "The Hollow of a Hill" (Piang). 3.6: Julia Russell, soprano—"A Summer Night" (Goring Thomas). What's in the Air To-day? (Robert Eden). 3.15: Paul Jeacle, saxophone—"Vale Roy." 3.17: Jessie Smith, contralto—"Listen-in" (Haydn Wood), "Salaam" (Lang). 3.24: Ted Nelson, songs and novelties at the piano. 3.32: Paul Jeacle and his Band—"Lonesome Little Doll" (Cowan). "Pretty Face" (Davis). 4.30: Close down.
 4.45: "Humpty and Dumpty."
EVENING SESSION.
 6.35: Melody broadcast. 6.40: Public School Life and Sport. Mr. E. C. H. Taylor. 6.55: Musical interlude. 7.0: Time signal. 7.1: Countryman's Session. 7.25: The Latest in Patents: Road Construction. Mr. E. A. Deane. 7.40: News and cables. 7.45: The World's Kaleidoscope. Professor K. H. Bailey, M.A. E.C.L. 8.0: Melbourne Observatory time signal.

THE CHILDREN'S CORNER.

8.0: Opera from Station 2FC, Sydney—Alfred Hill's "Teora," and other of his compositions. National Broadcasting Orchestra (directed by Mr Alfred Hill), "Maori Rhapsody."
 8.10: Norman Francis, tenor, tenor aria from "Auster."
 8.18: String Quartet, "Maori Quartet," No. 2, in G Minor (two movements).
 8.28: May Craven, soprano, ballad from "Hinemon," with Orchestra.
 8.36: National Broadcasting Orchestra—(a) "A Maori Lament," (b) "Waiata Maori," (c) "Waiata Poi."
 8.46: Wilfrid Thomas, basso, "Tangi," with Orchestra.
 8.54: Quartet, last two movements from "Maori Quartet."
 9.4: Harold Tollmache, baritone, "Whaka Ariki" (war song from "Tapu").
 9.17: A talk of interest.
 9.25: A one-act opera, "Teora," directed by J. M. Post. Cast—Teora, May Craven; Tohinka, Wilfrid Thomas; Tamui, Harold Tollmache; Wisapa, Norman Francis; Spirit of Pomare, Emil Sussmlich.
 10.0: Paul Jeacle and his Band—"Laughing Ma-inette" (Collins), "Sentimental Fool" (Ross), "The Wonderful World after All" (Davis).
 10.20: News and weather.
 10.30: Paul Jeacle and his Band, latest and brightest dance numbers.
 11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).
MORNING SESSION.
 8.15 to 11.0: As usual.
MIDDAY SESSION.
 12.0 to 2.0: As usual.
AFTERNOON SESSION.
 2.0: Orchestral, New York Philharmonic Orchestra. 2.8: Choir, St. Mary of the Lake Seminary Choir. 2.12: Instrumental, Gondoller Trio, violin, flute, and harp. 2.18: Baritone, Giuseppe Danise. 2.18: Band, Brunswick Military Band. 2.21: Duet, Jones and Hare. 2.24: Organ, Eddie Dunstetter. 2.27: Comedienne, Vaughan de Leath. 2.30: Band, Brunswick Military Band. 2.33: Choir, St. Mary of the Lake Seminary Choir. 2.36: Orchestral, Cleveland Symphony Orchestra. 2.40: Baritone, Giuseppe Danise. 2.44: Instrumental, Gondoller Trio. 2.47: Comedienne, Vaughan de Leath. 2.50: Band, Walter B. Rogers Brass Band. 2.53: Duet, Jones and Hare. 2.56: Organ, Eddie Dunstetter. 2.50: Comedian, Ed. Smalle. 3.2: Request numbers. 3.20: Art in Modern Life. Miss Stephanie Taylor. 3.35: Musical interlude. 3.40: Your Garden. Salad Vegetable Culture, Mr. A. Antonio. 3.55: Musical interlude. 4.0: Wanderings (through Southern India, Miss Stella Parker. 4.15: Musical reproduction. 5.0: Chimes. 5.1: Musical reproduction. 5.30: Weather. 5.45: Close down.

6.15: Dinner music. 7.30: What's on the air to-night? 7.32: Sporting results. 7.35: Latest musical releases. 8.0: G.P.O. chimes.
EVENING SESSION.
 8.1: The Laughing Philosopher—Looks at Life, Brass Band and Variety.
 8.15: Malvern Tramways Band, conductor, T Campbell, selection, "Lucia di Lammermoor" (Donizetti).
 8.25: Norman Bland and partner—"Almost Gentlemen" will entertain.
 8.35: Edna Davis, xylophone—"Second Hungarian Rhapsody" (Lizst), "That's You, Baby" (Conrad).
 8.42: Jack Houston, ventriloquist, "The Officer."
 8.45: Malvern Tramways Band—Waltz, "Irene" (Lilian Raymond).
 8.56: Recital of original works by the Australian composer, Louis Lavater—1. Piano Sonata (Allesro) in F; (a) Scherzo 1; (b) Scherzo 2; (c) Quasi una Marcia; (d) Allegro Gajo, Phyllis Palett. 2. Songs—"The Betrayed Lover," "The White Owl," Alexander Raff. 3. String Quartette—"The Lonely Quartet" from "In the Forest," A.B.O. String Quartette; Alexander Raff at the piano. 4. Piano: (a) Mazurka, Fochique; (b) Humoresque in D Flat; (c) Hornpipe in G, Phyllis Palett. 5. Songs, "The Crow," "Bushman's Song," Alexander Raff. 6. String Quartette, "A Sunny Glade" from "In the Forest," A.B.C. String Quartette; Alexander Raff at the piano.

9.36: Norman Bland and partner, "Almost Gentlemen" will entertain.
 9.46: Malvern Tramways Band, "Unfinished Symphony" (Schubert).
 9.55: Jack Houston, ventriloquist, "The Doctor."
 10.3: Weather and news.
 10.13: Edna Davis, xylophone—"Caro Nome," "Mean to Me."
 10.20: Malvern Tramways Band—March, "The Virtuoso" (Rimmer) "A Londonderry Air" (Hawkins).
 10.30: Ood Save the King.

40G

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).
 Day sessions as usual. (See Friday). 7.45: Lecture, "The Battle of the Breeds," by Mr. E. J. Shelton.

NIGHT SESSION.

8.0: The Rhythm Rascals' entertainers.
 8.10: Kylie M'Alister and Co., a short sketch.
 8.25: C. V. Woodland, baritone—"Serenade" (Schubert), "The Witch of Bowden" (Smith), "Dawn" (Hardelot).

8.38: The Rhythm Rascals, syncope.
 8.50: Ruth Tregurtha, elocutionist—"Cautionary Tales" (Belloc).
 9.0: Metropolitan weather forecast.
 9.1: "Teoma" will give the eighth talk in connection with 4G's home garden scheme, "Popular Flowers and How to Grow Them, 2."
 9.11: The Rhythm Rascals, more melody.
 9.20: C. V. Woodland, baritone—"Song of the Volga Boatman" (arr. Chailapin), "Fat L'il Feller," "The Lute Player" (Alfons).
 9.30: The Rhythm Rascals, half an hour's dance music.
 10.0: News; weather; close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).
 Morning Session, Afternoon Session, and Evening Session to 7.20: As usual.

NIGHT SESSION

8.0: Chimes.
 8.1: Programme review.
 8.10: Walter Barratt and his Maison Masters of Melody—"Louisette" (Whiting), "I'm Sitting on Top of the World Alone" (Whiting), "The Wedding of the Painted Doll."
 8.20: Gent. Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
 8.25: Walter Barratt and his Maison Masters of Melody—"I Saw Doon and Go Boom," "Broadway Melody," "Oh, What a Night to Love" (James Riley to sing refrains).
 8.34: Lady Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
 8.38: Walter Barratt and his Maison Masters of Melody—"Carolina Moon," "Dance of the Paper Dolls," "Happy Humming Bird" (De Sylva).
 8.48: Gent. Vocalist (winner popular vote, 5CL Radio Vocal Championship).
 8.52: Walter Barratt and his Maison Masters of Melody—"Marie" (Berlin), "Sally of my Dreams" (Kern).
 9.0: G.P.O. chimes.
 9.1: Meteorological information, including Semaphore tides.
 9.2: Overseas grain report.
 9.3: Announcements.
 9.5: Walter Barratt and his Maison Masters of Melody—"You Were Meant for Me" (Brown), "A Siren's Dream" (Pollock), "Avalon Town" (Brown).
 9.15: Lady Vocalist (winner popular vote, 5CL Radio Vocal Championship).
 9.19: Walter Barratt and his Maison Masters of Melody, "The Sun is at my Window," "I Knew it was You" (Finlen), "I Don't Care" (Dowell).
 9.24: Gent. Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
 9.33: Walter Barratt and his Maison Masters of Melody—"Chiquita" (Wayne), "Rio Rita" (Tierney), "The Kinkajou" (Tierney).
 9.45: Lady Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
 9.47: Walter Barratt and his Maison Masters of Melody—"Roses for Remembrance," "Kashmiri" (Amy Woodforde Finlen), "I Can't Give You Anything but Love."
 9.57: Gent. Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
 10.2: Walter Barratt and his Maison Masters of Melody—"Where the Shy Little Violets Grow," "Love Dream," "Chilly Pom Pom, Fee."
 10.12: Lady Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
 10.15: News.
 10.30: Walter Barratt and his Maison Masters of Melody request.
 11.0: G.P.O. chimes and close down.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).
EARLY MORNING SESSION **MORNING SESSION** **MIDDAY SESSION** **THE RADIO MATINEE**, and **EARLY EVENING SESSION**, as usual.
EVENING SESSION—8.0: Chimes. 8.2: Ambassadors' Unit Orchestra. 8.7: Wurlitzer Organ. 8.15: Ladies' Odeon Society. 9.15: State Presentation from Ambassadors Theatre. 9.30: Margaret Sharp, L.A.B. violinist 9.37: Lion Station, by Basil Kirke. 9.57: Margaret Sharp, L.A.B. violinist, 10.4: Weather. 10.10: Dance Band. 10.55: Weather Report. 11.0: Close Down. "God Save the King."

7ZL

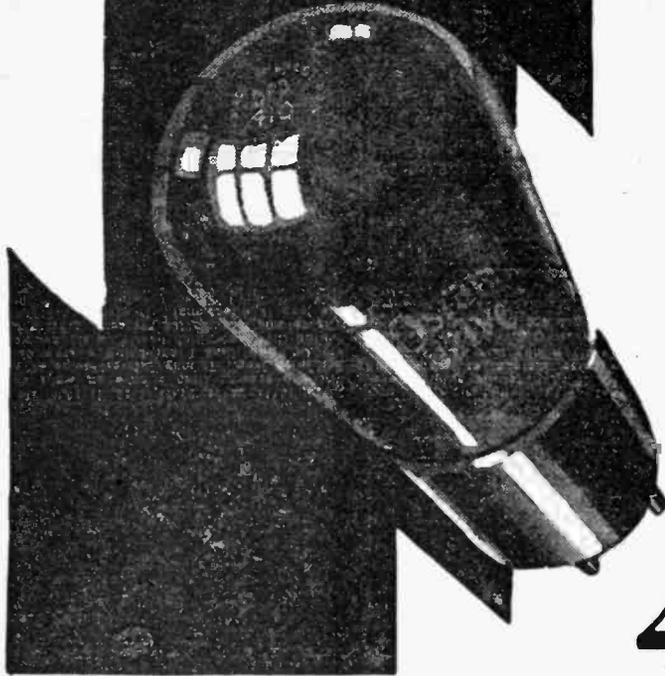
Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 518 Metres).
 11.30 a.m.: Record recital. 11.34: Midlands weather forecast. 11.35: Record recital. 11.55: Tasmanian stations 9 a.m. weather report. 12.1: Shipping; mail notices; Housewives' Guide. 12.8: Record recital. 12.30: News service; announcements. 12.40: Record recital. 1.8: Railway auction sales. 1.10: Record recital. 1.30: Close down. 3.1: Record recital. 3.4: Weather information. 3.5: Record recital. 4.15: "Aunt Edna" will speak on "Ribbons and Trimmings." 4.30: Close down. 6.15: Children's Corner with music. 7.30: News session. 7.40: Under the auspices of the Tasmanian University, W. F. Dennis-Butler will speak on "Justice between Nations." 7.50: Jack Brown will speak on "Women in History, Famous and Otherwise." 8.1: Record recital. 8.15: Transmission from the Memorial Congregational Church, Hobart, a programme of concerted music—violin, piano, organ, and voices. Violin, Miss Hazel Queen; piano, Mrs. Saunders; James Marsh, organist; voices from the Memorial Church Choir. 9.30: News session. 9.45: Record recital. 10.0: G.P.O. clock chimes the hour. 10.1: Close down.

SPECIAL XMAS ISSUE

In preparation now is the finest number of "Wireless Weekly" ever to be produced. Short stories, we hope, by Steele Rudd, "Brasso" (you remember his yarns), and Felix O'Neil. Special constructional articles by Mr. Hull, including an unusual three-valve set and details of how to build a glider for the aviation enthusiasts. Many pages will be printed in two colors, with attractive illustrations. Do not miss this issue—the best value for threepence on the bookstalls. Remember the issue after next.

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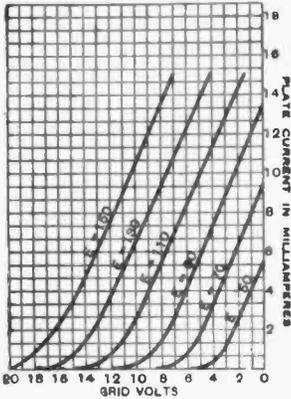
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Local Programmes, Monday, December 2

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and Meteorological information for the man on the land.
7.3: This Morning's News, from the "Sydney Morning Herald."
7.8: Austradio Musical Reproduction.
7.45: Mails and Shipping.
7.48: What's on to-day?
7.50: Children's Birthday Calls.
8.0: Music from the Studio.
8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
10.32: A.B.C. Racing Observer.
10.45: HORACE WEBER at the GRAND ORGAN.
11.0: HOUSEHOLD HELPS: Cooking, by Miss Ruth Furst.
11.10: CABLES (copyright)—"Sun"—"Herald" and A.P.A. News Service.
11.15: MORNING DEVOTION.
11.30: Austradio Musical Reproduction.
11.53: British Official Wireless Press.
12.0: "Big Ben." Stock Exchange and Metal Quotations.
12.5: V. C. BELL will speak from "The Public Forum."
12.20: Midday weather forecast and weather synopsis. Special produce market session for the man on the land, supplied by the State Marketing Board.
12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch Hour Music.
2.0: Stock Exchange, second call.
2.2: A Glance at the afternoon "Sun" and "News."
2.7: Studio Music.
2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- FROM THE 1929 RADIO DISPLAY AT THE STATE SHOPPING BLOCK.
NOTE: Results from the Cricket Match England v. Queensland, played at Brisbane will be broadcast as received.
2.30: Austradio Musical Reproduction.
3.0: EDUCATIONAL SESSION, under the auspices of the Department of Public Instruction—Mr. E. Breakwell, Supervisor of School of Agriculture, will speak on "Desirable Features in Flower Gardens."
3.15: Mr. H. F. Treharne, Supervisor of Music, will speak on "British Musicians."
3.30: GEMS FROM THE GREAT MASTERS
3.45: MARJORIE COLE, Soprano—
(a) "I Love Thee" (Grieg).
(b) "Chinese Flower" (Bowers).
(c) "Lady of Love" (Zamecnik).
3.52: A MODERN COMPOSITION.
4.0: A TALK BY MRS. MILDRED MUSCIO. "The Children's Charter."
4.15: OLD WORLD MELODIES.
4.28: Stock Exchange, third call.
4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Good-night" Stories, told by the "Hello Man," assisted by Aunt Eily.
6.45: Dinner Hour Music.
7.20: A.B.C. Sporting Service.
7.25: Special Country Session. Stock Exchange Resume. Markets. Weather forecast. Late News Service from the "Sun" and "News." Truck bookings.
7.58: To-night's Programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- In response to repeated requests Alfred Hill's One-act Opera, "Teora," will be repeated through 2FC Service, and will be relayed to 3LO Melbourne. The production of the Opera will be preceded by a Concert Programme.
Through 2BL Service items by the Dulwich Hill Band; Goodie Reeve in "Something Different." Songs and Comedy Numbers will provide a popular contrast.
8.0: THE NATIONAL BROADCASTING ORCHESTRA, conducted by Alfred Hill—"Maori Rhapsody."

- 8.10: NORMAN FRANCIS, Tenor—Tenor Aria from "Auster."
8.18: STRING QUARTETTE—"Maori Quartette—No. 2, in G Minor" (Two Movements).
8.28: MAY CRAVEN, Soprano—"Ballad from Hinemoa" (Orchestral Accompaniment).
8.36: THE NATIONAL BROADCASTING ORCHESTRA—
(a) "A Maori Lament."
(b) "Walata Maori."
(c) "Walata Pol."
8.46: WILFRED THOMAS, Basso—"Tangi" (Orchestral Accompaniment).
8.54: STRING QUARTETTE—Last Two Movements from "Maori Quartette."
9.4: HAROLD TOLLEMACHE—"Whaka ariki" (War Song from "Tapu").
9.12: THE COUNTRY MAN'S WEATHER SESSION—
(a) New South Wales Forecasts.
(b) Interstate Weather Synopsis.
(c) Yachtsman's and Fisherman's Forecast.

- 9.15: FOREWORD BY ALFRED HILL—"TEORA,"

or

"THE ENCHANTED FLUTE,"

AN OPERA.

By ALFRED HILL.

THE STORY:

Tainui, a Maori chief, after many encounters, has slain Pomare, leader of a rival tribe, and to degrade the memory of his fallen foe has made a flute from his armbone. Playing on this, he hears the voice of the dead, and in consternation seeks to discover what has bewitched his flute. Waipata, Tainui's son, has been sent to Pomare's pah to make the daughter of the vanquished chief, Teora, captive, but falls in love with her. Tainui breaks in upon their love scene, is furious, suspects the girl of sorcery, and vows to put them both to death. Father and son fight, but are interrupted by Tohunga, who suggests that Teora be put to the test of the Triaha, a sacred weapon, which of itself moves towards persons innocent of witchcraft. The test exonerates Teora. Tainui's thoughts hark back to the flute, which he tries to pick up. Once again the spirit voice mocks him, driving him to a frenzy which ends in his death.

- 9.25: THE CAST OF "TEORA"—OPERA, directed by Joseph M. Post:
Teora May Craven
Tohunga Wilfred Thomas
Tainui Harold Tollemache
Waipata Norman Francis
Spirit of Pomare Emil Sussmilch

- 10.15: Announcements.
Late Official Weather Forecast.
10.20: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in Dance Music.
11.30: CLOSE. NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
8.16: Music for every mood.
8.40: Meteorological data for the country.
8.45: Mails and shipping information.
8.50: Memory melodies.
9.0: This morning's story.
9.30: A musical interlude.
9.40: British Official Wireless Press.
9.45: New music.

FROM THE 1929 RADIO DISPLAY, AT THE STATE SHOPPING BLOCK.

- 10.5: News from the "Sydney Morning Herald."
10.10: Austradio musical reproduction.
10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.
11.0: G.P.O. chimes. Close down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
12.2: A pianoforte recital.
12.30: LUNCH-HOUR MUSIC.
1.0: Afternoon news from "The Sun" and "Evening News."
1.5: Austradio musical reproduction.
2.0: J. KNIGHT BARNETT at the "Wurlitzer."
2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: Business efficiency talk.
2.45: RADIO RHYTHM.
3.0: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
3.12: FROM THE STUDIO—DORIS LASCELLES, entertainer. "Reggie" (anonymous).
3.19: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
3.30: FROM THE STUDIO—MODERN MUSIC.
3.45: MICHAEL SAWTELL. "In Tune with the Infantile."
4.0: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
4.12: FROM THE STUDIO—DORIS LASCELLES, entertainer. "The Usual Way" (Weatherley).
4.19: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in dance music.
4.30: FROM THE STUDIO—Austradio musical reproduction.
4.45: The Trade Hour—demonstration music.
5.45: Weather information. Close down.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
6.45: THE BOYS' AERO CLUB, conducted by Mr. Norman Lyons.
7.5: The Country Man's market session. Wool, wheat, stock, farm produce, fruit, and vegetable markets.
7.20: DINNER MUSIC.
7.45: Austradio musical reproduction.
7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

2BL is featuring band music to-night, and the programme arranged by the Dulwich Hill Band is unusually attractive. Goodie Reeve in "Something Different," adds a spice of mystery, and there is a talk on the forthcoming water polo contest, at the Domain Baths.

Through 2FC service, Alfred Hill's one-act opera, "Teora," will, in response to many requests, be produced for the second time, and will be relayed to 3LO, Melbourne.

- 8.0: DULWICH HILL BAND.
(a) Selection. "Songs of Ireland" (Streeton).
(b) Selection, "Adoration" (Ball).
8.15: 2BL'S WEEKLY SOUND FILM FEATURE.
8.30: EDWARD SALMON, tenor.
8.37: DISMAL DESMOND, the Lugubrious Wit.
8.44: FOSTER and FINLAY, musical entertainers.
(a) "She's Funny That Way" (Moret).
(b) "Kiss Me Again" (Herbert).
(c) "Dance of the Paper Dolls" (Siras).
8.54: DULWICH HILL BAND.
(a) Selection. "Comrades in Arms" (Adam).
(b) Duet for trombone and euphonium. "Larboard Watch" (arr. Hawkes).
9.6: GOODIE REEVE in "SOMETHING DIFFERENT."

- 9.21: FOSTER and FINLAY. musical entertainers.
 (a) "Walking with Susie" (Gottler).
 (b) "A Kiss—a Caress—then Adieu" (Sharp).
 (c) "Um-tcha—um-tcha—Da-da-da" (Blight).
 9.28: Weather information for the man on the land.
 9.30: DULWICH HILL BAND.
 (a) March, "Under Two Flags" (Coles).
 (b) March "America" (Hawkes).
 9.42: EDWARD SALMON, tenor.
 9.49: DISMAL DESMOND, the Lugubrious Wit.
 9.56: DULWICH HILL BAND.
 Selection, "Memories of the Masters" (arr. Hawkes).
 10.6: A talk on the forthcoming water polo season.
 10.16: MODERN MUSIC.
 10.25: Late news from "The Sun" and "Evening News."
 Late weather forecast.
 10.30: NATIONAL ANTHEM. CLOSE

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 2.0 to 3.30, 5.15 to 8.0: As usual.
 8.0: Miss Mary Neal, contralto.
 8.7: Symphony Orchestra.
 8.15: Mr. Len Howell, tenor.
 8.22: Band selection.
 8.30: Miss Mary Mulconry, soprano.
 8.37: Mr. Jack Win and Mr. Heath Burdock, humour.
 8.40: Violin solo.
 8.45: Address.
 9.0: Weather report.
 9.1: Miss Mary Neal, contralto.
 9.10: Symphony Orchestra.
 9.20: Mr. Len Howell, tenor.
 9.30: Mr. Jack Win and Mr. Heath Burdock, humour.
 9.35: Band Selections.
 9.45: Miss Mary Mulconry, soprano.
 9.55: Violin solos.
 10.0: Instrumental Music.
 10.30: Close.

2UW

Radio Broadcasting, Ltd., Paling's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION

12.30 to 4.30 as usual.

EVENING SESSION

- 5.30: Children's Hour, conducted by Uncle Jack.
 6.30: The Meccano Club. Close.
 6.45: Close.
 7.0: Request numbers.
 7.45: Radio talk by Mr. E. Homfray.
 8.0: Light Orchestral Concert.
 9.0: Comments on Foreign Affairs, by Mr. J. M. Prentice.
 9.10: Music.
 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 289 Metres).

10.0 to noon, and Children's Session, as usual.

EVENING SESSION

- 7.0 p.m.: Musical Interlude.
 7.15: Dance Music.
 7.30: A talk on Gardening. Mr. G. L. GIL-LATLY.
 7.45: Militant Women's Group.
 8.0: Overture.
 8.8: Tenor Solos.
 8.15: Dance Music.
 8.30: Request numbers.
 8.45: Soprano Solos, MISS WRIGHT.
 9.0: Novelty Interludes.
 9.10: Selections of latest Parlophone, Columbia, Regal, Brunswick.
 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION.

- 7.15: Breakfast Time Hour Orchestral Music. 8.0: Clock and Chimes, 8.1: Music
 8.30: Weather Report. Close down.
 (No Evening Session.)

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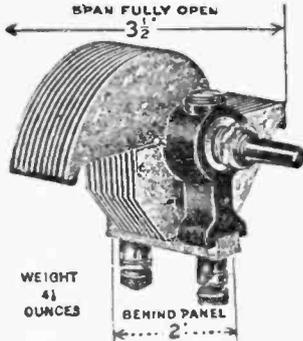
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Local Programmes, Tues., Dec. 3

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news, from the "Sydney Morning Herald."
- 7.8: Austradio musical reproduction.
- 7.45: Malls and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
- 10.32: A.B.C. Racing Observer.
- 10.45: HORACE WEBER at the GRAND ORGAN.
- 11.0: HOUSEHOLD HELPS—Hints to Housewives, by Miss Ruth Furst.
- 11.10: CABLES (Copyright), "Sun"—"Herald" and A.P.A. News Service.
- 11.15: MORNING DEVOTION.
- 11.30: Austradio musical reproduction.
- 11.53: British official wireless press.
- 12.0: "Big Ben"; Stock Exchange and metal quotations.
- 12.5: MRS. M. E. PULSFORD will speak on "Child Psychology"—The Destructive Child—Collection of Toys.
- 12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board.
- 12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch-hour music.
- 2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 2.7: Studio music.
- 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- FROM THE 1929 RADIO DISPLAY, AT THE STATE SHOPPING BLOCK.
NOTE.—Results from the cricket match, England v. Queensland, played at Brisbane, will be broadcast as received.
- 2.30: THE POPULAR TRIO.
 - 2.42: MURIEL ALLMUTT, entertainer—
(a) "The Potato Peeler" (Hansell).
(b) "The Record" (Hansell).
 - 2.49: A. PODINOVSKY, violinist—
"Ballade et Polinaise" (Vieuxtemps).
 - 2.56: REV. F. H. RAWARD will speak.
 - 3.11: THE POPULAR TRIO.
 - 3.21: A NEW SONG.
 - 3.24: MURIEL ALLMUTT, entertainer—
"Pigeon Toes" (Lawson).
 - 3.31: A. PODINOVSKY, violinist—
"La Serenata" (Pergament).
 - 3.38: A MODERN BALLAD.
 - 3.48: THE POPULAR TRIO.
 - 4.0: THE STORYTELLER.
 - 4.15: THE POPULAR TRIO.
 - 4.28: Stock Exchange, third call.
 - 4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Goodnight" stories, told by Aunt Willa, assisted by Cousins Gwen and Clarice; Mary Turner, entertainer—
(a) "Daddy" (Behrend).
(b) "The Brook" (Pape).
- 6.45: Dinner-hour music.
- 7.20: A.B.C. Sporting Service.
- 7.25: Special country session; Stock Exchange resume; markets; weather forecast; late news from the "Sun" and "News"; truck bookings.
- 7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- We are introducing a little atmosphere into our State-wide Radio Dance Night. To-night we are opening with a description of the Water Polo matches from the Domain—just a refresher before the dancing commences.
- 8.0: FROM THE DOMAIN BATHS—Description of the water polo matches.
 - 8.28: FROM THE STUDIO—THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.

8.40: CHARLES LAWRENCE, entertainer—

- (a) "When Temple Bells are Ringing."
- (b) "Sophie's Sweethearts."
- 8.50: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 9.2: THE COUNTRY MAN'S WEATHER SESSION—
(a) New South Wales forecasts.
(b) Inter-State weather synopsis.
(c) Yachtsman's and fisherman's forecast.
- 9.4: WALLACE NELSON will give an address.
- 9.15: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 9.28: BABS WENTWORTH, popular vocalist—
(a) "Happy Days and Lonely Nights" (Winbrow).
(b) "Do Do Something" (Green and Stept).
- 9.35: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 9.47: HARRISON WHITE, banjoist—
(a) "Elegie" (Massenet).
(b) "Lyric Walk" (Blomche).
- 9.54: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 10.15: Announcements.
Late official weather forecast.
- 10.20: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 11.30: CLOSE. NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
- 8.18: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Malls and shipping information.
- 8.50: Memory melodies.
- 9.0: This morning's story.
- 9.30: A musical interlude.
- 9.40: British official wireless press.
- 9.45: New music.
- 10.2: FROM THE 1929 RADIO SHOW. AT THE STATE SHOPPING BLOCK.
News from the "Labor Daily."
- 10.5: News from the "Sydney Morning Herald."
- 10.10: Austradio musical reproduction.
- 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.
- 11.0: G.P.O. Chimes. Close down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
- 12.2: A pianoforte recital.
- 12.30: LUNCH-HOUR MUSIC.
- 1.0: Afternoon news from the "Sun" and the "News."
- 1.5: Austradio musical reproduction.
- 2.0: J. KNIGHT BARNETT at the Wurliizer.
- 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: HALF-HOUR WITH SILENT FRIENDS.
- 3.0: ROMANO'S CAFE DANCE ORCHESTRA, conducted by Bennie Abrahams.
- 3.12: DOSSIE HARGREAVES, soprano—
(a) "Waltz Song," from "Tom Jones" (German).
(b) "The Lass With the Delicate Air" (Arne).
- 3.19: A NEW NUMBER.
- 3.22: ROMANO'S DANCE ORCHESTRA, conducted by Bennie Abrahams.
- 3.32: MODERN MUSIC.
- 3.45: REV. R. B. LEW will speak on "THE MODERN GIRL."
- 4.0: ROMANO'S DANCE ORCHESTRA, conducted by Bennie Abrahams.
- 4.12: DOSSIE HARGREAVES, soprano—
(a) "Carmena" (Lane Wilson).
(b) "Annie Laurie" (Liza Lehmann).
- 4.19: SONGS OF TO-DAY.
- 4.22: ROMANO'S DANCE ORCHESTRA, conducted by Bennie Abrahams.
- 4.32: MODERN MUSIC.
- 4.45: The Trade Hour—Demonstration music.
- 5.45: Weather information. Close down.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
- 6.45: THE GIRL GUIDES' CLUB, conducted by Miss Gwen Varley.
- 7.5: The Country Man's Market Session—Wool, wheat, stock, farm produce, fruit, vegetable, and pig markets.
- 7.20: DINNER MUSIC.
- 7.45: Austradio musical reproduction.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

2BL's classic programme to-night will be taken from the Aeolian Hall, under the direction of G. Vern Barnett. Music-lovers will enjoy this programme, contributed by Cc instance Burt, Hugh McClean, Clement Q. Williams, and May Willis. Brunton Gibb will work in association with Mr Vern Barnett in Elgar's "Carillon." FROM THE AEOLIAN HALL—CLASSIC PROGRAMME. ARRANGED BY G. VERN BARNETT.

- 8.0: ORGAN SOLOS—Mr. G. Vern Barnett.
- 8.15: CLEMENT Q. WILLIAMS, baritone—(a) "Im Wunderschönen Monat Mai" (Litolff). (b) "Avs Meinen Thranen Spriessen" (Litolff). (c) "Die Rose, Die Lillie Taube" (Litolff). (d) "Wenn ich in Deine Augen Seh" (Litolff).
- 8.22: HUGH McCLEAN, violinist—"Romance in F" (Beethoven).
- 8.29: CONSTANCE BURT, soprano—
- 8.36: BRUNTON GIBB, in association with G. Vern Barnett at the organ—"CARILLON" (Elgar).
- 8.48: MAY WILLIS, pianist—(a) "Allegro Molto Moderato." (b) "First Movement from Concerto in A Minor" (Grieg), orchestral accompaniment played on the organ, by G. Vern Barnett.
- 8.58: CLEMENT Q. WILLIAMS, baritone—(a) "The Lotus Flower" (Boosey). (b) "The Trout" (Boosey).
- 9.6: HUGH McCLEAN, violinist—(a) "Berceuse" (Cui). (b) "Valse" (Tschalkowsky-Auer).
- 9.13: CONSTANCE BURT, soprano.
- 9.20: MAY WILLIS, pianist—"Concert Arabesques" (Schultz-Euler). (Variations on Blue Danube Waltz).
- 9.30: FROM THE STUDIO—Weather information for the man on the land.
- 9.32: V. C. BELL will give a talk.
- 9.45: IN LIGHTER VEIN.
- 10.25: Late news from the "Sun" and "News."
- Late weather forecast.
- 10.30: NATIONAL ANTHEM. CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 2.0 to 3.30, 5.15 to 8.0: As usual.
- 8.0: OPERATIC PROGRAMME—Miss Kathlene Cracknell, contralto.
- 8.7: Symphony Orchestra.
- 8.15: Mr. William Green, tenor.
- 8.22: Symphony Orchestra.
- 8.30: Mr. Jack Win and Mr. Heath Burdock, humour.
- 8.35: Miss Gladys Verona, soprano.
- 8.42: Symphony Orchestra.
- 8.50: Miss Kathlene Cracknell, contralto.
- 9.0: Weather report.
- 9.3: Address.
- 9.15: Symphony Orchestra.
- 9.25: Mr. William Green, tenor.
- 9.35: Mr. Jack Win and Mr. Heath Burdock, humour.
- 9.40: Symphony Orchestra.
- 9.50: Miss Gladys Verona, soprano.
- 10.0: Instrumental music.
- 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Pulling's Building, Ash St., Sydney (Wavelength, 367 Metres).

- MIDDAY SESSION
- 12.30 to 4.30, as usual.
- EVENING SESSION
- 5.30: Children's Hour.
- 6.30: Close.
- 7.0: Request numbers.

- 8.0: Recital of songs by John McCormack.
- 9.0: Comments on Foreign Affairs, by Mr. J. M. Prentice.
- 9.10: Music.
- 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

- 10.0 to noon and Children's Session, 6.0, as usual.
- EVENING SESSION
- 7.0: Musical interlude.
- 7.15: SPORTING FEATURE. Turf topics How they should run to-morrow.
- 7.45: Request numbers.
- 8.0: Orchestral selections.
- 8.10: Women's Information Service, MRS GRAY.
- 8.25: Baritone Solos, Mr. HIGGINS.
- 8.33: Planoforte Solos, MR. HANCOCK.
- 8.40: Music and request numbers from the Studio. SPORTING FEATURE from the ringside of McHugh's Leichhardt Stadium. Results of early events and full description of 15-round event.
- 8.50: Dance music from the Studio.
- 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

- EARLY MORNING SESSION, 7.15 to 8.30: as usual.
- MIDDAY SESSION, 10.0 to Noon: as usual.
- AFTERNOON SESSION 1.0 to 2.0: as usual.
- EVENING SESSION.
- 8.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Orchestral Dinner Selections. 7.55: Programme Announcements, and News from the "Sun." 8.0: Chimes. 8.1: Overture; "Morning, Noon, and Night." 8.10: Vocal and Instrumental Items. 10.15 Close.

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Interstate Programmes, Monday, December 2

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.
7.0 to 8.15: See Friday.

MORNING SESSION.
10.30 to 12.30: As usual.

MIDDAY SESSION.
1.0 to 1.15: As usual. 1.30: Transmission from Constitutional Club luncheon.

EDUCATIONAL SESSION.
2.0: The Earth We Live On. Mr. W. C. Groves, B.A., Dip. Ed. 2.15: Musical interlude. 2.20: Science in Everyday Life. Dr. Loftus Hills, D.Sc. 2.35: Musical interlude. 2.40: Our Australian Writers. Mr. P. Willmott. 2.55: Musical interlude. 3.0: Melbourne Observatory time signal.

THE RADIO MATINEE.
3.0: Paul Jeacle and his Band—"I'm Just in the Mood To-night" (Leslie), "The Hollow of a Hill" (Piang). 3.6: Julia Russell, soprano—"A Summer Night" (Goring Thomas). What's in the Air To-day? (Robert Eden). 3.15: Paul Jeacle, saxophone—"Vale Roy." 3.17: Jessie Smith, contralto—"Listen-in" (Haydn Wood), "Salaam" (Lang). 3.24: Ted Nelson, songs and novelties at the piano. 3.32: Paul Jeacle and his Band—"Lonesome Little Doll" (Cowan). 3.35: Bob Adams, trumpet—"At Dawning" (Cadmam). 3.57: Julia Russell, soprano—"The Maids of Cadiz" (Leo Delibes). "The Robin's Song" (White). 4.4: Paul Jeacle and his Band—"The Toy-maker's Dream" (Goldent). "Sweetheart of all my Dreams" (Fitch). 4.10: Jessie Smith, contralto—"The Boat Song" (Ware), "Sylvia" (Speaks). 4.17: Ted Nelson, songs and sketches at the piano. 4.24: Paul Jeacle and his Band—"Lonesome Little Doll" (Cowan). "Pretty Face" (Davis). 4.30: Close down.

THE CHILDREN'S CORNER.
4.45: "Humpty and Dumpty."

EVENING SESSION.
6.35: Melody broadcast. 6.40: Public School Life and Sport. Mr. E. C. H. Taylor. 6.55: Musical interlude. 7.0: Time signal. 7.1: Countryman's Session. 7.25: The Latest in Patents: Road Construction. Mr. E. A. Deane. 7.40: News and cables. 7.45: The World's Kaleidoscope. Professor K. H. Bailey, M.A. E.C.L. 8.0: Melbourne Observatory time signal.

NIGHT SESSION.
8.0: Opera from Station 2FC, Sydney—Alfred Hill's "Teora," and other of his compositions. National Broadcasting Orchestra (directed by Mr Alfred Hill), "Maori Rhapsody."
8.10: Norman Francis, tenor, tenor aria from "Auster."
8.18: String Quartet, "Maori Quartet," No. 2, in G Minor (two movements).
8.28: May Craven, soprano, ballad from "Hinemon," with Orchestra.
8.36: National Broadcasting Orchestra—(a) "A Maori Lament," (b) "Waiata Maori," (c) "Waiata Poi."
8.46: Wilfrid Thomas, basso, "Tangi," with Orchestra.
8.54: Quartet, last two movements from "Maori Quartet."
9.4: Harold Tollemache, baritone, "Whaka Ariki" (war song from "Tapu").
9.17: A talk of interest.
9.25: A one-act opera, "Teora," directed by J. M. Post. Cast—Teora, May Craven; Tohinika, Wilfrid Thomas; Tohinui, Harold Tollemache; Wisapa, Norman Francis; Spirit of Pomare, Emil Sussmlich.
10.0: Paul Jeacle and his Band—"Laughing Ma-inette" (Collins), "Sentimental Fool" (Ross), "The Wonderful World after All" (Davis).
10.20: News and weather.
10.30: Paul Jeacle and his Band, latest and brightest dance numbers.
11.30: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION.
8.15 to 11.0: As usual.

MIDDAY SESSION.
12.0 to 2.0: As usual.

AFTERNOON SESSION.
2.0: Orchestral, New York Philharmonic Orchestra. 2.8: Choir, St. Mary of the Lake Seminary Choir. 2.12: Instrumental, Gondoller Trio, violin, flute, and harp. 2.18: Baritone, Giuseppe Danise. 2.18: Band, Brunswick Military Band. 2.21: Duet, Jones and Hare. 2.24: Organ, Eddie Dunstetter. 2.27: Comedienne, Vaughan de Leath. 2.30: Band, Brunswick Military Band. 2.33: Choir, St. Mary of the Lake Seminary Choir. 2.36: Orchestral, Cleveland Symphony Orchestra. 2.40: Baritone, Giuseppe Danise. 2.44: Instrumental, Gondoller Trio. 2.47: Comedienne, Vaughan de Leath. 2.50: Band, Walter B. Rogers Brass Band. 2.53: Duet, Jones and Hare. 2.56: Organ, Eddie Dunstetter. 2.50: Comedian, Ed. Smalle. 3.2: Request numbers. 3.20: Art in Modern Life. Miss Stephanie Taylor. 3.35: Musical interlude. 3.40: Your Garden. Salad Vegetable Culture, Mr. A. Antonio. 3.55: Musical interlude. 4.0: Wanderings (through Southern India, Miss Stella Parker. 4.15: Musical reproduction. 5.0: Chimes. 5.1: Musical reproduction. 5.30: Weather. 5.45: Close down.

6.15: Dinner music. 7.30: What's on the air to-night? 7.32: Sporting results. 7.35: Latest musical releases. 8.0: G.P.O. chimes.

NIGHT SESSION.
8.1: The Laughing Philosopher—Looks at Life, Brass Band and Variety.
8.15: Malvern Tramways Band, conductor, T Campbell, selection, "Lucia di Lammermoor" (Donizetti).
8.25: Norman Bland and partner—"Almost Gentlemen" will entertain.
8.35: Edna Davis, xylophone—"Second Hungarian Rhapsody" (Lizli), "That's You, Baby" (Conrad).
8.42: Jack Houston, ventriloquist, "The Officer."
8.45: Malvern Tramways Band—Waltz, "Irene" (Lilian Raymond).
8.56: Recital of original works by the Australian composer, Louis Lavater—1. Piano Sonata (Allesro) in F; (a) Scherzo 1; (b) Scherzo 2; (c) Quasi una Marcia; (d) Allegro Gajo, Phyllis Palett. 2. Songs—"The Betrayed Lover," "The White Owl," Alexander Raff. 3. String Quartette—"The Lonely Quartet" from "In the Forest," A.B.O. String Quartette; Alexander Raff at the piano. 4. Piano: (a) Mazurka, Fochique; (b) Humoresque in D Flat; (c) Hornpipe in G, Phyllis Palett. 5. Songs, "The Crow," "Bushman's Song," Alexander Raff. 6. String Quartette, "A Sunny Glade" from "In the Forest," A.B.C. String Quartette; Alexander Raff at the piano.
9.36: Norman Bland and partner, "Almost Gentlemen" will entertain.
9.46: Malvern Tramways Band, "Unfinished Symphony" (Schubert).
9.55: Jack Houston, ventriloquist, "The Doctor."
10.3: Weather and news.
10.13: Edna Davis, xylophone—"Caro Nome," "Mean to Me."
10.20: Malvern Tramways Band—March, "The Virtuoso" (Rimmer) "A Londonderry Air" (Hawkins).
10.30: Ood Save the King.

40G

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual. (See Friday). 7.45: Lecture, "The Battle of the Breeds," by Mr. E. J. Shelton.

NIGHT SESSION.
8.0: The Rhythm Rascals' entertainers.
8.10: Kylie M'Alister and Co., a short sketch.
8.25: C. V. Woodland, baritone—"Serenade" (Schubert), "The Witch of Bowden" (Smith), "Dawn" (Hardelot).

8.38: The Rhythm Rascals, syncope.
8.50: Ruth Tregurtha, elocutionist—"Cautionary Tales" (Belloc).
9.0: Metropolitan weather forecast.
9.1: "Teoma" will give the eighth talk in connection with 40G's home garden scheme, "Popular Flowers and How to Grow Them, 2."
9.11: The Rhythm Rascals, more melody.
9.20: C. V. Woodland, baritone—"Song of the Volga Boatman" (arr. Chailapin), "Fat L'il Feller," "The Lute Player" (Alfons).
9.30: The Rhythm Rascals, half an hour's dance music.
10.0: News; weather; close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

Morning Session, Afternoon Session, and Evening Session to 7.20: As usual.

NIGHT SESSION
8.0: Chimes.
8.10: Programme review.
8.15: Walter Barratt and his Maison Masters of Melody—(Whiting), "I'm Sitting on Top of the World Alone" (Whiting), "The Wedding of the Painted Doll."
8.20: Gent. Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
8.25: Walter Barratt and his Maison Masters of Melody—"I Saw Doon and Go Boom," "Broadway Melody," "Oh, What a Night to Love" (James Riley to sing refrains).
8.34: Lady Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
8.38: Walter Barratt and his Maison Masters of Melody—"Carolina Moon," "Dance of the Paper Dolls," "Happy Humming Bird" (De Sylva).
8.48: Gent. Vocalist (winner popular vote, 5CL Radio Vocal Championship).
8.52: Walter Barratt and his Maison Masters of Melody—"Marie" (Berlin), "Sally of my Dreams" (Kern).
9.0: G.P.O. chimes.
9.1: Meteorological information, including Semaphore tides.
9.2: Overseas grain report.
9.3: Announcements.
9.5: Walter Barratt and his Maison Masters of Melody—"You Were Meant for Me" (Brown), "A Siren's Dream" (Pollock), "Avalon Town" (Brown).
9.15: Lady Vocalist (winner popular vote, 5CL Radio Vocal Championship).
9.19: Walter Barratt and his Maison Masters of Melody, "The Sun is at my Window," "I Knew it was You" (Finden), "I Don't Care" (Dowell).
9.24: Gent. Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
9.33: Walter Barratt and his Maison Masters of Melody—"Chiquita" (Wayne), "Rio Rita" (Tierney), "The Kinkajou" (Tierney).
9.45: Lady Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
9.47: Walter Barratt and his Maison Masters of Melody—"Roses for Remembrance," "Kashmiri" (Amy Woodforde Finden), "I Can't Give You Anything but Love."
9.57: Gent. Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
10.2: Walter Barratt and his Maison Masters of Melody—"Where the Shy Little Violets Grow," "Love Dream," "Chilly Pom Pom, Fee."
10.12: Lady Vocalist (winner of popular vote, 5CL Radio Vocal Championship).
10.15: News.
10.30: Walter Barratt and his Maison Masters of Melody request.
11.0: G.P.O. chimes and close down.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION **MORNING SESSION** **MIDDAY SESSION** **THE RADIO MATINEE**, and **EARLY EVENING SESSION**, as usual.

EVENING SESSION—8.0: Chimes. 8.2: Ambassadors' Unit Orchestra. 8.7: Wurlitzer Organ. 8.15: Ladies' Odeon Society. 9.15: State Presentation from Ambassadors Theatre. 9.30: Margaret Sharp, L.A.B. violinist 9.37: Lion Storks, by Basil Kirke. 9.57: Margaret Sharp, L.A.B. violinist, 10.4: Weather. 10.10: Dance Band. 10.55: Weather Report. 11.0: Close Down. "God Save the King."

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 518 Metres).

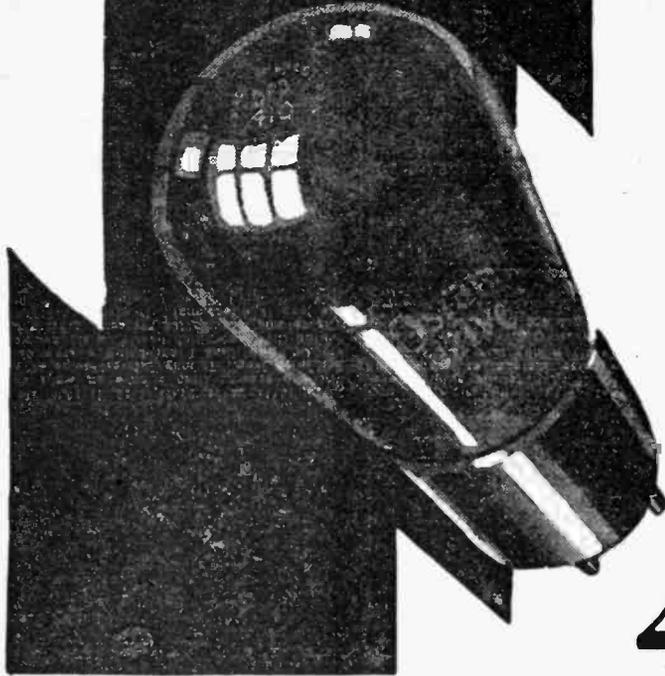
11.30 a.m.: Record recital. 11.34: Midlands weather forecast. 11.35: Record recital. 11.55: Tasmanian stations 9 a.m. weather report. 12.1: Shipping; mail notices; Housewives' Guide. 12.8: Record recital. 12.30: News service; announcements. 12.40: Record recital. 1.8: Railway auction sales. 1.10: Record recital. 1.30: Close down. 3.1: Record recital. 3.4: Weather information. 3.5: Record recital. 4.15: "Aunt Edna" will speak on "Ribbons and Trimmings." 4.30: Close down. 6.15: Children's Corner with music. 7.30: News session. 7.40: Under the auspices of the Tasmanian University, W. F. Dennis-Butler will speak on "Justice between Nations." 7.50: Jack Brown will speak on "Women in History, Famous and Otherwise." 8.1: Record recital. 8.15: Transmission from the Memorial Congregational Church, Hobart, a programme of concerted music—violin, piano, organ, and voices. Violin, Miss Hazel Queen; piano, Mrs. Saunders; James Marsh, organist; voices from the Memorial Church Choir. 9.30: News session. 9.45: Record recital. 10.0: G.P.O. clock chimes the hour. 10.1: Close down.

SPECIAL XMAS ISSUE

In preparation now is the finest number of "Wireless Weekly" ever to be produced. Short stories, we hope, by Steele Rudd, "Brasso" (you remember his yarns), and Felix O'Neil. Special constructional articles by Mr. Hull, including an unusual three-valve set and details of how to build a glider for the aviation enthusiasts. Many pages will be printed in two colors, with attractive illustrations. Do not miss this issue—the best value for threepence on the bookstalls. Remember the issue after next.

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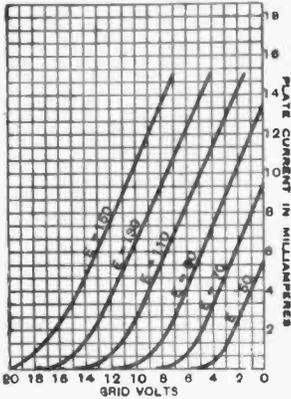
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Interstate Programmes, Tuesday, December 3

3LO

Australian Broadcasting Co., 129A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION. 7.0 to 8.15. See Friday.

MORNING SESSION. 10.30 to 12.30. As usual.

MIDDAY SESSION. 1.0 to 1.30. As usual.

EDUCATIONAL SESSION. 2.0. Stories from the Operas. Miss Lucy Ahon, B.A. 2.15. Musical Interlude. 2.30. Romance of the Slave and Gold Coast. Mr. A. A. Downs. 2.35. Musical Interlude. 2.40. Talk in French. Mons. Th. Rouel, B.A. 2.55. Musical Interlude. 3.0. Melbourne Observatory time signal.

BRASS BAND MATINEE. 3.0. Victory Brass Band—"The Line Up"; overture. "True Love." 3.10. Madame Mina Heseleva, soprano—"Love the Jester" (Montagu Phillips). "Slips Joyous" (Montagu Phillips). 3.17. Victory Brass Band—Cornet solo—"Kerry Dance." 3.20. Alban Whitehead, baritone—"When Song is Sweet" (Sans Souci). "You Along o' Me" (Sanderson). 3.27. Victory Brass Band—Waltz—"Blue Danube." 3.35. "Blue Bird Bros." imitations and comedy. 3.41. Iza Crossley, soubrette—"Humorous Novelty" (Moya Crossley). "Movie Mad" (Warwick Pryce). 3.47. Victory Brass Band, selection. "The Mikado." 3.55. Alban Whitehead, baritone—"I Did Not Know" (Trotter). Selected. 4.0. Victory Brass Band—Fox-trot. "Weary River." 4.6. Madame Mina Heseleva, soprano—"The Wren" (Liza Lehmann). "April Morn" (Robert Batten). 4.13. "Blue Bird Bros."—More comedy and imitation. 4.19. Iza Crossley, soubrette—"Christie's Crossword Puzzles" (Moya Crossley). "Colds" (Tom Clare). 4.25. Victory Brass Band—"Serenata" (Toselli). 4.30. Close down.

THE CHILREN'S CORNER. 5.45. "Ector and Orage"—Bobby Bluegum."

EVENING SESSION. 6.35. Melody broadcast. 6.40. Boy Scout Doings—Mr. P. Sanders. 6.55. Musical Interlude. 7.0. Time signal. 7.1. Countryman's session. 7.25. For the man on the land. 7.40. News and cables. 7.45. Public "Finance in Australia"—Financial Relations of the States and the Commonwealth." Prof. D. B. Copland, M.A., D.Sc. (under the auspices of the University Extension Board). 8.0. Time signal.

NIGHT SESSION. 8.0. National Broadcasting Orchestra—Excerpts from "The Nutcracker Suite" (Tschalkowski). 8.10. Alban Whitehead, baritone—"On the Beach at Otaibi" (Harrison). "Harlequin" (Sanderson). 8.17. J. A. Amory, banjo-mandolin—"Neapolitan Favorites" (Medley). 8.27. Calvin Groom. 8.24. Nora O'Malley and a Piano—Songs and sketches.

8.31. National Broadcasting Orchestra—An Alpine fantasy. "The Voice of the Bells" (Thurbad). 8.40. Opening of the Grand Radio Choral Contest, organised by the Australian Choral Association, in conjunction with 3LO.

9.10. The Light of Northern Stars—A programme of North American music, arranged by Gordon Ireland. Two songs from the Indian Country—"From the Land of the Sky-blue Water" (Cadman). "Pale Moon" (Logan). Instrumental trio (with vocal refrain)—"Beautiful Ohio" (Karl). Popular song—"Broadway Melody" (Brown). Short one-act play—"Indian Summer," by Pierre Lotvin. Pianoforte solo—"To a Wild Rose" (MacDowell). "Witches' Dance" (MacDowell). Musical monologue—"Mighty Lak a Row" (Revin). An interview—Henry Ford and the New Economic Policy. Two negro spirituals—"Swing Low, Sweet Chariot," selected. Popular song at the piano—"Dinah" (Pollock). Male quartette—Medley of Plantation Songs—Negro humor—A Little Dialogue. Male quartette—More Plantation Melodies. In Finale. National Broadcasting Orchestra—"The Stars and Stripes Forever" (Sousa).

9.50. A.B.C. String Quartette—Movement from Quartette by Beethoven. 10.0. Alban Whitehead, baritone—"Angels Guard Thee" (Godeard), violin obbligato by Bertha Jorgensen. "Pleading" (Eiger). 10.7. J. R. Amor, banjo-mandolin—Two serenades: (a) "Under the Lattice" (Le Tardes). (b) "Serenata" (Toselli). 10.13. Nora O'Malley and a Piano. 10.20. National Broadcasting Orchestra—Selection from "High Jinks" (Friml). 10.30. News and weather. 10.40. Paul Jeacle and his Band—Song and Syncopation. 11.30. God Save the King.

3AR

Australian Broadcasting Co., 129A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION. 8.15 to 11.0. As usual.

MIDDAY SESSION. 12.0. Chimes. 12.1. Beautifying the Home—Satisfying your Color Sense—Miss Lucy Ahon, B.A. 12.15. Fifteen Minutes' Synopsation. 12.30. Luncheon Music, supplied by the Studio Light Orchestra. 2.0. Close down.

AFTERNOON SESSION. 2.1. Bands—Massed Military Bands. 2.6. Baritone—Robert Howe. 2.9. Harpsichord—Anna Lind. 2.12. Soprano—Margherita Salvi. 2.15. Bands—Massed Military Bands. 2.18. Comedy—Smith Ballwe. 2.21. Dance Music—Fred Sugar Hall and his Sugar Babies' Orchestra. 2.24. The Three Australian Boys. 2.27. Soubrette—Sophie Tucker. 2.30. Dance Music—Fred Sugar Hall and his Sugar Babies' Orchestra. 2.33. Contralto—Karin Branzell. 2.37. Orchestra—Dajos Bela Orchestra. 2.41. Tenor—Carl Martin Oehmann. 2.45. Piano—Alexander Bralowsky. 2.51. Contralto—

Karin Branzell. 2.55. Orchestra—Dajos Bela Orchestra. 2.59. Tenor—Carl Martin Oehmann. 3.3. Request Numbers. 3.20. The Baby—Summer Diarrhoea—Sister Anne Purcell. 3.35. Musical Interlude. 3.40. Useful Crafts at Home—Australian Christmas Presents—Mrs. Henrietta Walker. 3.55. Musical Interlude. 4.0. The Latest Fashions—Madame La Mode. TRADERS' DEMONSTRATION SESSION. 4.15. Musical Reproduction. 5.0. Chimes. 5.1. Musical Reproduction. 5.30. Weather. 5.35. Close down. EVENING SESSION. 8.15. Dinner music. 7.30. What's on the Air Tonight? 7.32. Sporting Results. 7.35. Latest Musical Releases. 8.0. Chimes. NIGHT SESSION. 8.1. Tricks and Tricksters—Dr. Loftus Hills, D.Sc. DANCING AND SONG. 8.15. Paul Jeacle and his Band—"Come West, Little Girl" (Kahn). "Pretty Pace" (Davis). 8.22. The Melodious Three—In Popular Numbers. 8.42. Horrie Sheehan, trumpet—"Funny Notes" (Nicholls). 8.46. Joe Delany, tenor—"I Hear a Thrush at Eve" (Cadman). "The Star" (Rogers). 8.53. Paul Jeacle and his Band—"Do Something" (Green). "Big City Blues" (Conrad).

A CHORAL INTERLUDE. 9.0. Melbourne Philharmonic Society—Transmission from the Australian Church. Conductor: Professor Bernard Heinze. Pianist: Miss Isabel Adams. "Flora Gave Me Fairest Flowers" (John Wilbye). "In These Delightful Pleasant Groves" (Henry Purcell). "How Lovely are the Messengers" (Mendelssohn). "Arise Up, Arise" (Mendelssohn). MORE DANCING AND SONG. 9.30. Paul Jeacle and his Band—"Let Me Dream in Your Arms Again" (Gilbert). "Trail of Dreams" (Sevan). 9.36. Kate Cornell, entertainer—"The Lady Who Obliges." 9.43. Guy Stavordale, banjo—"Gladys Waltz" (own composition). 9.47. Joe Delany, tenor—"From the Land of the Sky Blue Water" (Cadman). "Just a Cottage Small" (Hanley). 9.54. Paul Jeacle and his Band—"I'm Just in the Mood To-night" (Leslie). "The Hollow of a Hill" (Plong). 10.0. Weather information and "Herald" News. Cable news service (copyright), Australian Press Association and "Sun." "Herald" News Service, Ltd. 10.10. Charles Corum, bass—"Hardy Norsemen" (Wright). 10.14. Kate Cornell, entertainer—"Let Her Go to Jericho." 10.22. Paul Jeacle and his Band—"Laughing Marionette" (Collins). "Here We Are" (Kahn). "Round Evening" (Whiting). 10.30. God Save the King.

8.0. Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres). Day sessions as usual. (See Friday). 7.45. Lecture-ture, "A Talk on Poultry," by Mr. P. Rumball, Poultry Instructor. NIGHT SESSION. 8.0. The South Sea Hawaiians (conductor, A. M'Donald)—"Rose of Honolulu." "Dark Hawaiian Eyes." "Sad Hawaiian Sea." 8.10. Double Male Quartette (conductor, Tom Muller)—"By the Blue Lagoon." 8.15. Norman Deans, steel guitar novelty, imitating the human voice singing in the distance. 8.18. Double Male Quartette—"I'm on my way to Mandalay" (Soloist, C. Rice). 8.23. A. M'Donald, ukelele solos, "Paradise Isles." "Pale Moon." 8.30. Ernest Harper, baritone—"Avalon" (Jolson), accompanied by Double Male Quartette. 8.35. The South Sea Hawaiians—"Moonlight in Kalua." "Wild Party Girl."—"Just a Night for Meditation." 8.45. Frances Lane, contralto—"Shores of Minnetonka" (Kahn). 8.49. Claude Wearne, pianist, selected. 8.52. Double Male Quartette. "Down Beneath the Sheltering Palms." 8.56. Leth Moore and A. M'Donald, guitar duets—"La Paloma." "Three O'clock in the Morning." 9.0. Metropolitan weather forecast. 9.1. Norman Deans, mechanical stick piano solo. 9.4. Leth Moore, steel guitar solo, "Laughing Rag." 9.14. Doug. Bouchard and A. MacDonald, ukelele duet. "Hawaiian Medley." 9.20. J. P. Cornwe, bass. "Maru! Ori!" 9.24. The South Sea Hawaiians—"Hilo March." "Just a Little Thing Called Love." 9.31. Double Male Quartette—"Oriental Maid" (Tate). Soloist: Fred Crane. 9.36. Norman Deans, steel guitar solos, "Hawaiian Chimes." "Sometime." 9.43. Frances Lane, contralto—"By the Blue Pacific" (Johnson). 9.47. A. MacDonald and N. Deans, guitar duets—"Beautiful." "Red Lips." 9.52. Double Male Quartette—"Song of Hawaii." 9.53. The South Sea Hawaiians—"Kohala March." 10.0. News; weather; close.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual. (See Friday). 7.45. Lecture-ture, "A Talk on Poultry," by Mr. P. Rumball, Poultry Instructor.

NIGHT SESSION. 8.0. The South Sea Hawaiians (conductor, A. M'Donald)—"Rose of Honolulu." "Dark Hawaiian Eyes." "Sad Hawaiian Sea." 8.10. Double Male Quartette (conductor, Tom Muller)—"By the Blue Lagoon." 8.15. Norman Deans, steel guitar novelty, imitating the human voice singing in the distance. 8.18. Double Male Quartette—"I'm on my way to Mandalay" (Soloist, C. Rice). 8.23. A. M'Donald, ukelele solos, "Paradise Isles." "Pale Moon." 8.30. Ernest Harper, baritone—"Avalon" (Jolson), accompanied by Double Male Quartette. 8.35. The South Sea Hawaiians—"Moonlight in Kalua." "Wild Party Girl."—"Just a Night for Meditation." 8.45. Frances Lane, contralto—"Shores of Minnetonka" (Kahn). 8.49. Claude Wearne, pianist, selected. 8.52. Double Male Quartette. "Down Beneath the Sheltering Palms." 8.56. Leth Moore and A. M'Donald, guitar duets—"La Paloma." "Three O'clock in the Morning." 9.0. Metropolitan weather forecast. 9.1. Norman Deans, mechanical stick piano solo. 9.4. Leth Moore, steel guitar solo, "Laughing Rag." 9.14. Doug. Bouchard and A. MacDonald, ukelele duet. "Hawaiian Medley." 9.20. J. P. Cornwe, bass. "Maru! Ori!" 9.24. The South Sea Hawaiians—"Hilo March." "Just a Little Thing Called Love." 9.31. Double Male Quartette—"Oriental Maid" (Tate). Soloist: Fred Crane. 9.36. Norman Deans, steel guitar solos, "Hawaiian Chimes." "Sometime." 9.43. Frances Lane, contralto—"By the Blue Pacific" (Johnson). 9.47. A. MacDonald and N. Deans, guitar duets—"Beautiful." "Red Lips." 9.52. Double Male Quartette—"Song of Hawaii." 9.53. The South Sea Hawaiians—"Kohala March." 10.0. News; weather; close.

5CL

Central Broadcasters, Ltd., 111 Hindmarsh Street, Adelaide (Wavelength, 409 Metres).

Morning Session, Afternoon Session, and Evening Session to 7.20. As usual. 7.20. Under the auspices of the Workers' Educational Association, Mr. R. F. Burdon, B.Sc., will speak. 7.35. Mr. H. Brewster-Jones will continue his series of talks, entitled "Art Culture of Native Races," by Dr. Herbert Basedow, M.P., in an interesting Australian talk. NIGHT SESSION. 8.0. Chimes. 8.10. A request presentation of the opera, "Ti Pagliacci," in which the following artists will take part—Marcelle Berard, Malcolm Jones, Owen Collett, Fred Custer, Ann Young, Bert Woolley, and Chorus. Explanatory remarks by Bessie Francis; music by the Operatic Orchestra.

9.1. Meteorological information. 9.2. Overseas grain reports. 9.3. Announcements. 9.5. Continuation of the opera. 10.15. News; sports. 10.30. Dance music. 11.0. Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION, MORNING SESSION, MIDDAY SESSION, THE RADIO MATINEE, and EARLY EVENING SESSION, as usual. EVENING SESSION—8.0. Chimes. 8.2. Metropolitan Orchestral Society Grand Concert. 9.1. Announcements. 9.5. Metropolitan Orchestral Society. 10.7. Dance Band. 10.59. Weather Report. 11.0. Close down.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldgs., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.30 a.m.: Sonora recital. 11.34. Midlands weather forecast. 11.35. Adeline Eager will speak on "Household Hints." 11.50. Sonora recital. 11.55. Tasmanian stations 9 a.m. weather report. 12.1. Shipping information by mail notice; Housewives Guide. 12.8. Sonora recital. 12.30. "Mercury" news service; announcements. 12.40. Sonora recital. 1.5. Railway auctions sales. 1.10. Sonora recital. 1.30. Close down. 3.0. G.P.O. clock chimes the hour. 3.1. Sonora recital. 3.4. Weather information. 3.5. Sonora recital. 3.45. Mrs. G. Rycroft on "Home Chats." 4.0. Sonora recital. 4.15. An educational talk on "Honey—Germany's 1928 Honey Imports." 4.30. Close down. 6.15. Children's Corner, with "Uncle David" and "The Story Lady." 7.10. Recorded music. 7.30. News session. 7.40. Belle St. Lawrence will continue her travel talks. 7.50. W. E. Fuller will speak on "Literary Lapses and Library dance music by the Darius Dance Ensemble (interspersed with vocal numbers). 9.30. News session. 9.40. Dance numbers. 9.52. Slumber music. 10.0. G.P.O. clock chimes the hour. 10.1. Close down.

Ladies and Gentlemen! : Dear sirs, We have bin asked to write and tell you about the Christmas Issue, which is coming out on December the Thirteenth (13) which is a Friday, so Heaven help us and our wives and children and all the sailors at sea on a day like that. Well, we don't know much about the Christmas issue; but Steele Rudd is writing us a story and do you remember "Brasso"? well "Brasso's" writing us a story; and we shall be telling our usual lies from the same old stand on so will Mr. Hull. There will be many other interesting features, which the Editor is nearly writing'n his head off to collect; so buy "Wireless Weekly" if it's only to tide the needy over Christmas. Yours sincerely and affectionately, James

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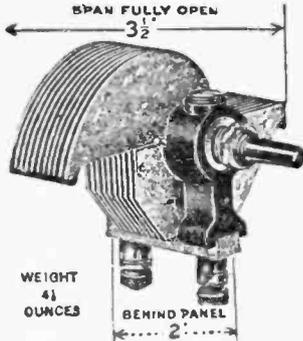
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Local Programmes, Tues., Dec. 3

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news, from the "Sydney Morning Herald."
- 7.8: Austradio musical reproduction.
- 7.45: Malls and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
- 10.32: A.B.C. Racing Observer.
- 10.45: HORACE WEBER at the GRAND ORGAN.
- 11.0: HOUSEHOLD HELPS—Hints to Housewives, by Miss Ruth Furst.
- 11.10: CABLES (Copyright), "Sun"—"Herald" and A.P.A. News Service.
- 11.15: MORNING DEVOTION.
- 11.30: Austradio musical reproduction.
- 11.53: British official wireless press.
- 12.0: "Big Ben"; Stock Exchange and metal quotations.
- 12.5: MRS. M. E. PULSFORD will speak on "Child Psychology"—The Destructive Child—Collection of Toys.
- 12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board.
- 12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch-hour music.
- 2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 2.7: Studio music.
- 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- FROM THE 1929 RADIO DISPLAY, AT THE STATE SHOPPING BLOCK.
NOTE.—Results from the cricket match, England v. Queensland, played at Brisbane, will be broadcast as received.
- 2.30: THE POPULAR TRIO.
 - 2.42: MURIEL ALLMUTT, entertainer—
(a) "The Potato Peeler" (Hansell).
(b) "The Record" (Hansell).
 - 2.49: A. PODINOVSKY, violinist—
"Ballade et Polnaise" (Vieuxtemps).
 - 2.56: REV. F. H. RAWARD will speak.
 - 3.11: THE POPULAR TRIO.
 - 3.21: A NEW SONG.
 - 3.24: MURIEL ALLMUTT, entertainer—
"Pigeon Toes" (Lawson).
 - 3.31: A. PODINOVSKY, violinist—
"La Serenata" (Pergament).
 - 3.38: A MODERN BALLAD.
 - 3.48: THE POPULAR TRIO.
 - 4.0: THE STORYTELLER.
 - 4.15: THE POPULAR TRIO.
 - 4.28: Stock Exchange, third call.
 - 4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Goodnight" stories, told by Aunt Willa, assisted by Cousins Gwen and Clarice; Mary Turner, entertainer—
(a) "Daddy" (Behrend).
(b) "The Brook" (Pape).
- 6.45: Dinner-hour music.
- 7.20: A.B.C. Sporting Service.
- 7.25: Special country session; Stock Exchange resume; markets; weather forecast; late news from the "Sun" and "News"; truck bookings.
- 7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

- We are introducing a little atmosphere into our State-wide Radio Dance Night. To-night we are opening with a description of the Water Polo matches from the Domain—just a refresher before the dancing commences.
- 8.0: FROM THE DOMAIN BATHS—Description of the water polo matches.
 - 8.28: FROM THE STUDIO—THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.

8.40: CHARLES LAWRENCE, entertainer—

- (a) "When Temple Bells are Ringing."
- (b) "Sophie's Sweethearts."
- 8.50: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 9.2: THE COUNTRY MAN'S WEATHER SESSION—
(a) New South Wales forecasts.
(b) Inter-State weather synopsis.
(c) Yachtsman's and fisherman's forecast.
- 9.4: WALLACE NELSON will give an address.
- 9.15: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 9.28: BABS WENTWORTH, popular vocalist—
(a) "Happy Days and Lonely Nights" (Winbrow).
(b) "Do Do Something" (Green and Stept).
- 9.35: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 9.47: HARRISON WHITE, banjoist—
(a) "Elegie" (Massenet).
(b) "Lyric Walk" (Blomche).
- 9.54: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 10.15: Announcements.
Late official weather forecast.
- 10.20: THE AUSTRALIAN BROADCASTING DANCE ORCHESTRA.
- 11.30: CLOSE. NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
- 8.18: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Malls and shipping information.
- 8.50: Memory melodies.
- 9.0: This morning's story.
- 9.30: A musical interlude.
- 9.40: British official wireless press.
- 9.45: New music.
- 10.2: FROM THE 1929 RADIO SHOW. AT THE STATE SHOPPING BLOCK.
News from the "Labor Daily."
- 10.5: News from the "Sydney Morning Herald."
- 10.10: Austradio musical reproduction.
- 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley.
- 11.0: G.P.O. Chimes. Close down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
- 12.2: A pianoforte recital.
- 12.30: LUNCH-HOUR MUSIC.
- 1.0: Afternoon news from the "Sun" and the "News."
- 1.5: Austradio musical reproduction.
- 2.0: J. KNIGHT BARNETT at the Wurliizer.
- 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: HALF-HOUR WITH SILENT FRIENDS.
- 3.0: ROMANO'S CAFE DANCE ORCHESTRA, conducted by Bennie Abrahams.
- 3.12: DOSSIE HARGREAVES, soprano—
(a) "Waltz Song," from "Tom Jones" (German).
(b) "The Lass With the Delicate Air" (Arne).
- 3.19: A NEW NUMBER.
- 3.22: ROMANO'S DANCE ORCHESTRA, conducted by Bennie Abrahams.
- 3.32: MODERN MUSIC.
- 3.45: REV. R. B. LEW will speak on "THE MODERN GIRL."
- 4.0: ROMANO'S DANCE ORCHESTRA, conducted by Bennie Abrahams.
- 4.12: DOSSIE HARGREAVES, soprano—
(a) "Carmena" (Lane Wilson).
(b) "Annie Laurie" (Liza Lehmann).
- 4.19: SONGS OF TO-DAY.
- 4.22: ROMANO'S DANCE ORCHESTRA, conducted by Bennie Abrahams.
- 4.32: MODERN MUSIC.
- 4.45: The Trade Hour—Demonstration music.
- 5.45: Weather information. Close down.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
- 6.45: THE GIRL GUIDES' CLUB, conducted by Miss Gwen Varley.
- 7.5: The Country Man's Market Session—Wool, wheat, stock, farm produce, fruit, vegetable, and pig markets.
- 7.20: DINNER MUSIC.
- 7.45: Austradio musical reproduction.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

2BL's classic programme to-night will be taken from the Aeolian Hall, under the direction of G. Vern Barnett. Music-lovers will enjoy this programme, contributed by Cc instance Burt, Hugh McClean, Clement Q. Williams, and May Willis. Brunton Gibb will work in association with Mr Vern Barnett in Elgar's "Carillon." FROM THE AEOLIAN HALL—CLASSIC PROGRAMME. ARRANGED BY G. VERN BARNETT.

- 8.0: ORGAN SOLOS—Mr. G. Vern Barnett.
- 8.15: CLEMENT Q. WILLIAMS, baritone—(a) "Im Wunderschönen Monat Mai" (Litolff). (b) "Avs Meinen Thranen Spruessen" (Litolff). (c) "Die Rose, Die Lillie Taube" (Litolff). (d) "Wenn ich in Deine Augen Seh" (Litolff).
- 8.22: HUGH McCLEAN, violinist—"Romance in F" (Beethoven).
- 8.29: CONSTANCE BURT, soprano—
- 8.36: BRUNTON GIBB, in association with G. Vern Barnett at the organ—"CARILLON" (Elgar).
- 8.48: MAY WILLIS, pianist—(a) "Allegro Molto Moderato." (b) "First Movement from Concerto in A Minor" (Grieg), orchestral accompaniment played on the organ, by G. Vern Barnett.
- 8.58: CLEMENT Q. WILLIAMS, baritone—(a) "The Lotus Flower" (Boosey). (b) "The Trout" (Boosey).
- 9.6: HUGH McCLEAN, violinist—(a) "Berceuse" (Cui). (b) "Valse" (Tschalkowsky-Auer).
- 9.13: CONSTANCE BURT, soprano.
- 9.20: MAY WILLIS, pianist—"Concert Arabesques" (Schultz-Euler). (Variations on Blue Danube Waltz).
- 9.30: FROM THE STUDIO—Weather information for the man on the land.
- 9.32: V. C. BELL will give a talk.
- 9.45: IN LIGHTER VEIN.
- 10.25: Late news from the "Sun" and "News."
- Late weather forecast.
- 10.30: NATIONAL ANTHEM. CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 2.0 to 3.30, 5.15 to 8.0: As usual.
- 8.0: OPERATIC PROGRAMME—Miss Kathlene Cracknell, contralto.
- 8.7: Symphony Orchestra.
- 8.15: Mr. William Green, tenor.
- 8.22: Symphony Orchestra.
- 8.30: Mr. Jack Win and Mr. Heath Burdock, humour.
- 8.35: Miss Gladys Verona, soprano.
- 8.42: Symphony Orchestra.
- 8.50: Miss Kathlene Cracknell, contralto.
- 9.0: Weather report.
- 9.3: Address.
- 9.15: Symphony Orchestra.
- 9.25: Mr. William Green, tenor.
- 9.35: Mr. Jack Win and Mr. Heath Burdock, humour.
- 9.40: Symphony Orchestra.
- 9.50: Miss Gladys Verona, soprano.
- 10.0: Instrumental music.
- 10.30: Close down.

2UW

Radio Broadcasting, Ltd., Pulling's Building, Ash St., Sydney (Wavelength, 367 Metres).

- MIDDAY SESSION
- 12.30 to 4.30, as usual.
- EVENING SESSION
- 5.30: Children's Hour.
- 6.30: Close.
- 7.0: Request numbers.

- 8.0: Recital of songs by John McCormack.
- 9.0: Comments on Foreign Affairs, by Mr. J. M. Prentice.
- 9.10: Music.
- 10.30: Close.

2KY

Trades and Labor Council, Goulburn St., Sydney (Wavelength, 280 Metres).

- 10.0 to noon and Children's Session, 6.0, as usual.
- EVENING SESSION
- 7.0: Musical interlude.
- 7.15: SPORTING FEATURE. Turf topics How they should run to-morrow.
- 7.45: Request numbers.
- 8.0: Orchestral selections.
- 8.10: Women's Information Service, MRS GRAY.
- 8.25: Baritone Solos, Mr. HIGGINS.
- 8.33: Pianoforte Solos, MR. HANCOCK.
- 8.40: Music and request numbers from the Studio. SPORTING FEATURE from the ringside of McHugh's Leichhardt Stadium. Results of early events and full description of 15-round event.
- 8.50: Dance music from the Studio.
- 10.0: Closing announcements.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

- EARLY MORNING SESSION, 7.15 to 8.30: as usual.
- MIDDAY SESSION, 10.0 to Noon: as usual.
- AFTERNOON SESSION 1.0 to 2.0: as usual.
- EVENING SESSION.
- 8.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Orchestral Dinner Selections. 7.55: Programme Announcements, and News from the "Sun." 8.0: Chimes. 8.1: Overture; "Morning, Noon, and Night." 8.10: Vocal and Instrumental Items. 10.15 Close.

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Local Programmes, Wednesday, December 4

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Sydney Morning Herald."
- 7.8: Austradio musical reproduction
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: CLOSE.

MORNING SESSION AND AFTERNOON SESSION

- 10.30: Announcements.
- 10.32: General sporting talk by Oscar Lind.
- 10.45: HORACE WEBER at the GRAND ORGAN.
- 11.0: HOUSEHOLD HELPS—Cooking, by Miss Ruth Furst.
- 11.10: CABLES (Copyright). "Sun"—"Herald" and A.P.A. news service.
- 11.15: MORNING DEVOTION FROM THE 1929 RADIO DISPLAY AT THE STATE SHOPPING BLOCK.
- 11.30: Austradio musical reproduction
- 11.53: British official wireless press.
- 12.0: "Big Ben"; Stock Exchange and metal quotations.
- 12.5: A. A. BOWLES will speak on "Roads versus Railways."
- 12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board
- 12.30: Studio Music.
- 12.50: FROM WARWICK FARM—Description of the races in the running. Musical programme from the Studio during intervals between the races.
- NOTE.—2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 4.25: FROM THE STUDIO—Stock Exchange third call
- 4.30: Late sporting results
- 4.45: CLOSE

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 6.45: Children's "Goodnight" stories, told by the "Hello Man" assisted by Uncle Ted and "Sandy"
- 6.47: Dinner-hour music.
- 7.20: A.B.C. Sporting Service
- 7.25: Special country session—Stock Exchange resume; markets; weather forecast; late news service from the "Sun" and "News"; truck bookings
- 7.55: To-night's programme

THE EVENING PRESENTATION—8 to 11.30 p.m.

- The Debate which we offer to-night—"Are Women Mentally Equal to Men?"—which will be undertaken by C. N. Baeyertz and Mrs. Albert Littlejohn will provide an unusually interesting interlude. Band Music by the Metropolitan Band. Professor Randall Woodhouse in Songs from Sims Reeves' repertoire, and Cello Solos, will complete a varied programme. Through 2PL the Overture and Presentation from the State Theatre, and H. W. Varna's Play, "The Skipper's Life," are featured.
- 8.0: THE METROPOLITAN BAND—
 - (a) Quick March, "The Outpost" (Robertson).
 - (b) Fantasia "The Circus" (Lithgow)
- 8.15: PROFESSOR RANDALL WOODHOUSE in Songs from Sims Reeves' Repertoire—
 - (a) "Come into the Garden, Maud" (Balfe)
 - (b) "My Pretty Jane" (Bishop).
- 8.23: A DEBATE—"Are Women Mentally Equal to Men?" by C. N. Baeyertz and Mrs. Albert Littlejohn.
- 8.43: ANNE MILLS, Mezzo—
 - (a) "To Sleep" (Tschaikowsky).
 - (b) "Only for Thee" (Tschaikowsky).
- 8.50: MURIEL LANG, Cello Solos—"Adagio" from Concerto (Dvorak).
- 8.57: THE COUNTRY MAN'S WEATHER SESSION—
 - (a) New South Wales Forecasts.
 - (b) Interstate Weather Synopsis.

- 9.0: THE METROPOLITAN BAND—Selection, "Robert the Devil" (Meyerbeer).
- 9.15: PROFESSOR RANDALL WOODHOUSE, in more Songs from Sims Reeves' Repertoire—
 - (a) "Deeper and Deeper Still" (Handel).
 - (b) "Wait Her, Angels" (Handel).
- 9.22: MURIEL LANG, Cellist—
 - (a) "Serenade" (Hans Sitt).
 - (b) "Gavotte" (Lully).
- 9.29: THE METROPOLITAN BAND—Intermezzo, "Somewhere in France" (Homan).
- 9.35: ANNE MILLS, Mezzo—
 - (a) "Softly Awakes My Heart" (Saint-Saens).
 - (b) "From the Land of the Sky Blue Water" (Cadman).
- 9.52: THE METROPOLITAN BAND—Waltz, "Ruby" (Homan).
- 10.2: A CELEBRITY RECITAL.
- 10.15: ANNOUNCEMENTS.
- Late Official Weather Forecast.
- 10.30: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in Dance Music.
- 11.30: CLOSE NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 333 Metres)

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements
- 8.16: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Mails and shipping information.
- 8.50: Memory melodies.
- 9.0: This morning's story.
- 9.30: A musical interlude.
- 9.40: British Official Wireless Press.
- 9.45: New music.
- 10.5: News from the "Sydney Morning Herald"
- 10.10: Austradio musical reproduction
- 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley
- 11.0: G.P.O. chimes. Close down

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
- 12.2: A pianoforte recital.
- 12.30: LUNCH-HOUR MUSIC.
- 1.0: Afternoon news from "The Sun" and "Evening News."
- 1.5: Austradio musical reproduction.
- 2.0: J. KNIGHT BARNETT at the "Wurlitzer."
- 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: FROM THE 1929 RADIO DISPLAY AT THE STATE SHOPPING BLOCK.
- 2.30: HALF-HOUR WITH SILENCE FRIENDS.
- 3.0: ROMANO'S DANCE ORCHESTRA conducted by Bennie Abrahams.
- 3.12: JAMES WALKER, pianist.
 - (a) "Capriccio in E Major" (Scarlatti).
 - (b) "Largo" from "Sonata in B Minor" Op. 58 (Chopin).
- 3.22: ROMANO'S DANCE ORCHESTRA conducted by Bennie Abrahams.
- 3.32: MODERN MUSIC.
- 3.45: GOODIE REEVE will give some "Aids to Personality."
- 4.0: ROMANO'S DANCE ORCHESTRA conducted by Bennie Abrahams.
- 4.12: JAMES WALKER, pianist.
 - (a) "Prelude in C Major" (Chopin).
 - (b) "Naila Waltz" (Delibes-Dohnanyi).
- 4.22: ROMANO'S DANCE ORCHESTRA conducted by Bennie Abrahams
- 4.32: MEMORY MELODIES.
- 4.45: The Trade Hour—demonstration music
- 5.45: Weather information. Close down

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
- 6.45: THE BOYS' RADIO CLUB, conducted by Mr. Norman Lyons.
- 7.5: The Country Man's market session. Wool, wheat, stock, farm produce, fruit and vegetable markets.
- 7.20: DINNER MUSIC.
- 7.45: Austradio musical reproduction.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

2BL will feature to-night the overture and presentation from the State Theatre. The play by the H. W. Varna Company, "The Skipper's Life," is on frivolous lines.

Through 2FC service a programme of band music, contributed by the Metropolitan Band, and unusual debate, "Are Women Mentally Equal to Men?" by C. N. Baeyertz and Mrs. Albert Littlejohn; Professor Randall Woodhouse, in Sims Reeves' Repertoire, will provide an interesting and varied evening's entertainment.

8.0: FROM THE STATE THEATRE. The State Orchestra, under the direction of Will Prior, with Price Dunlavy, at the grand organ.

8.8: FROM THE STUDIO. ALEXANDER HMELNITSKI, pianist (a) "First Arabesque" (Debussy). (b) "Alt-Wien" (Godowsky). (c) "A Musical Snuff-Box" (Liadow).

8.20: FROM THE STATE THEATRE. The State Orchestra, under the direction of Will Prior.

8.32: FROM THE STUDIO. EMIL SUSSMILCH, baritone. (a) "Starry Summer Night" (Debussy). (b) "The Rose Morn" (Ronald). (c) "A Page's Road Song" (Novello). (d) "When I Awake" (Alfred Hill).

8.40: VINCENT ASPEY, violinist. (a) "The Hunt" (Chiabrano). (b) "Serenade" (Lehar).

8.47: FROM THE STATE THEATRE. The State Theatre Orchestra, under the direction of Will Prior. Price Dunlavy at the grand organ.

8.57: FROM THE STUDIO—THE H. W. VARNA COMPANY, in a radio play, entitled, "THE SKIPPER'S LIFE."

9.28: Weather information for the man on the land.

9.30: FROM THE STATE THEATRE Stage presentation.

9.35: FROM THE STUDIO. ALEXANDER HMELNITSKI, pianist "Soiree de Vienne" from "Fledamaus" (Strauss-Grunfeld).

9.47: EMIL SUSSMILCH baritone (a) "Although" (Ronald). (b) "The Wayfarer" (Allitsen). (c) "Who Knows?" (Tosti). (d) "The Slighted Swain" (Lane Wilson)

10.4: VINCENT ASPEY, violinist. "Introduction and Tarantelle" (Sarasate) "Pale Moon" (Logan).

10.11: AUSTRADIO MUSICAL REPRODUCTION.

10.25: Late news from "The Sun" and "Evening News."

Late weather forecast.

10.30: NATIONAL ANTHEM. CLOSE

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45. 2.0 to 3.30, 5.15 to 8.0: As usual.
- 8.0: Miss Maesmore Morris, contralto
- 8.7: Instrumental Trio.
- 8.15: Mr. Edward Barry, baritone.
- 8.22: Symphony Orchestra.
- 8.30: Miss Nora Mack, soprano.
- 8.38: Violin solos.
- 8.45: Mr. Jack Win and Mr. Heath Burdock, humour.
- 8.50: Miss Maesmore Morris, contralto.
- 9.0: Weather report.
- 9.3: Address.
- 9.15: Instrumental Trio.
- 9.25: Mr. Edward Barry, baritone.
- 9.35: Mr. Jack Win and Mr. Heath Burdock, humour.
- 9.40: Symphony Orchestra.
- 9.50: Miss Nora Mack, soprano.
- 10.0: Instrumental Music.
- 10.30: Close.

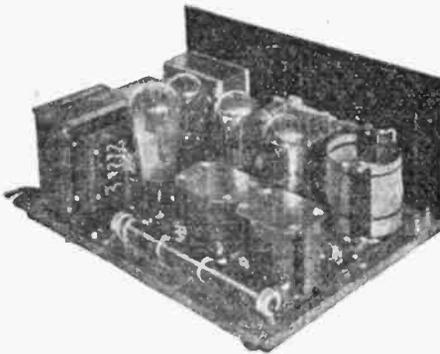
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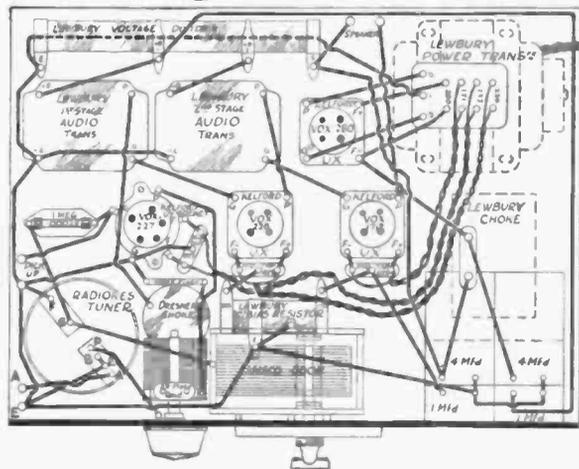
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32 Clarence Street, Sydney

Interstate Programmes, Tuesday, December 3

3LO

Australian Broadcasting Co., 129A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION. 7.0 to 8.15: See Friday.

MORNING SESSION. 10.30 to 12.30: As usual.

MIDDAY SESSION. 1.0 to 1.30: As usual.

EDUCATIONAL SESSION. 2.0: Stories from the Operas, Miss Lucy Ahon, B.A. 2.15: Musical Interlude. 2.30: Romance of the Slave and Gold Coast, Mr. A. A. Downs. 2.35: Musical Interlude. 2.40: Talk in French, Mons. Th. Rouel, B.A. 2.55: Musical Interlude. 3.0: Melbourne Observatory time signal.

BRASS BAND MATINEE. 3.0: Victory Brass Band—"The Line Up"; overture, "True Love." 3.10: Madame Mina Heseleva, soprano—"Love the Jester" (Montagu Phillips). "Slips Joyous" (Montagu Phillips). 3.17: Victory Brass Band—Cornet solo—"Kerry Dance." 3.20: Alban Whitehead, baritone—"When Song is Sweet" (Sans Souci), "You Along o' Me" (Sanderson). 3.27: Victory Brass Band—Waltz—"Blue Danube." 3.35: "Blue Bird Bros." imitations and comedy. 3.41: Iza Crossley, soubrette—"Humorous Novelty" (Moya Crossley), "Movie Mad" (Warwick Pryce). 3.47: Victory Brass Band, selection, "The Mikado." 3.55: Alban Whitehead, baritone—"I Did Not Know" (Trotter), selected. 4.0: Victory Brass Band—Fox-trot, "Weary River." 4.6: Madame Mina Heseleva, soprano—"The Wren" (Liza Lehmann), "April Morn" (Robert Batten). 4.13: "Blue Bird Bros."—More comedy and imitation. 4.19: Iza Crossley, soubrette—"Christie's Crossword Puzzles" (Moya Crossley), "Colds" (Tom Clare). 4.25: Victory Brass Band—"Serenata" (Toselli). 4.30: Close down.

THE CHILREN'S CORNER. 5.45: "Ector and Orage"—Bobby Bluegum."

EVENING SESSION. 6.35: Melody broadcast. 6.40: Boy Scout Doings—Mr. F. Sanders. 6.55: Musical Interlude. 7.0: Time signal. 7.1: Countryman's session. 7.25: For the man on the land. 7.40: News and cables. 7.45: Public "Finance in Australia"—Financial Relations of the States and the Commonwealth." Prof. D. B. Copland, M.A., D.Sc. (under the auspices of the University Extension Board). 8.0: Time signal.

NIGHT SESSION. 8.0: National Broadcasting Orchestra—Excerpts from "The Nutcracker Suite" (Tschalkowski). 8.10: Alban Whitehead, baritone—"On the Beach at Otaibi" (Harrison), "Harlequin" (Sanderson). 8.17: J. A. Amoy, banjo-mandolin—"Neapolitan Favorites" (Medley). 8.27: Calvin Groom. 8.24: Nora O'Malley and a Piano—Songs and sketches.

8.31: National Broadcasting Orchestra—An Alpine fantasy, "The Voice of the Bells" (Thurbad). 8.40: Opening of the Grand Radio Choral Contest, organised by the Australian Choral Association, in conjunction with 3LO.

9.10: The Light of Northern Stars—A programme of North American music, arranged by Gordon Ireland. Two songs from the Indian Country—"From the Land of the Sky-blue Water" (Cadman), "Pale Mocc" (Logan). Instrumental trio (with vocal refrain)—"Beautiful Ohio" (Karl). Popular song—"Broadway Melody" (Brown). Short one-act play—"Indian Summer," by Pierre Lotting. Pianoforte solo—"To a Wild Rose" (MacDowell), "Witches' Dance" (MacDowell). Musical monologue—"Mighty Lak a Row" (Hendy). An interview—Henry Ford and the New Economic Policy. Two negro spirituals—"Swing Low, Sweet Chariot," selected. Popular song at the piano—"Dinah" (Pollock). Male quartette—Medley of Plantation Songs—Negro humor—A Little Dialogue. Male quartette—More Plantation Melodies. In Finale, National Broadcasting Orchestra—"The Stars and Stripes Forever" (Sousa).

9.50: A.B.C. String Quartette—Movement from Quartette by Beethoven. 10.0: Alban Whitehead, baritone—"Angels Guard Thee" (Godeard), violin obbligato by Bertha Jorgensen—"Pleading" (Eiger). 10.7: J. R. Amor, banjo-mandolin—Two serenades: (a) "Under the Lattice" (Le Tache), (b) "Serenata" (Toselli). 10.13: Nora O'Malley and a Piano.

10.20: National Broadcasting Orchestra—Selection from "High Jinks" (Friml). 10.30: News and weather. 10.40: Paul Jeacle and his Band—Song and Syncopation. 11.30: God Save the King.

3AR

Australian Broadcasting Co., 129A Russell St., Melbourne (Wavelength, 484 Metres).

MORNING SESSION. 8.15 to 11.0: As usual.

MIDDAY SESSION. 12.0: Chimes. 1.1: Beautifying the Home—Satisfying your Color Sense—Miss Lucy Ahon, B.A. 12.15: Fifteen Minutes' Synopation. 1.30: Luncheon Music, supplied by the Studio Light Orchestra. 2.0: Close down.

AFTERNOON SESSION. 2.1: Bands—Massed Military Bands. 2.6: Baritone—Robert Howe. 2.9: Harpsichord—Anna Lind. 2.12: Soprano—Margherita Salvi. 2.15: Bands—Massed Military Bands. 2.18: Comedy—Smith Ballwe. 2.21: Dance Music—Fred Sugar Hall and his Sugar Babies' Orchestra. 2.24: The Three Australian Boys. 2.27: Soubrette—Sophie Tucker. 2.30: Dance Music—Fred Sugar Hall and his Sugar Babies' Orchestra. 2.33: Contralto—Karin Branzell. 2.37: Orchestra—Dajos Bela Orchestra. 2.41: Tenor—Carl Martin Oehmann. 2.45: Piano—Alexander Bralowsky. 2.51: Contralto—

Karin Branzell. 2.55: Orchestra—Dajos Bela Orchestra. 2.59: Tenor—Carl Martin Oehmann. 3.3: Request Numbers. 3.20: The Baby—Summer Diarrhoea—Sister Anne Purcell. 3.35: Musical Interlude. 3.40: Useful Crafts at Home—Australian Christmas Presents—Mrs. Henrietta Walker. 3.55: Musical Interlude. 4.0: The Latest Fashions—Madame La Mode. TRADERS' DEMONSTRATION SESSION. 4.15: Musical Reproduction. 5.0: Chimes. 5.1: Musical Reproduction. 5.30: Weather. 5.35: Close down.

EVENING SESSION. 8.15: Dinner music. 7.30: What's on the Air Tonight? 7.32: Sporting Results. 7.35: Latest Musical Releases. 8.0: Chimes.

NIGHT SESSION. 8.1: Tricks and Tricksters—Dr. Loftus Hills, D.Sc. DANCING AND SONG. 8.15: Paul Jeacle and his Band—"Come West, Little Girl" (Kahn), "Pretty Pace" (Davis). 8.22: The Melodious Three—in Popular Numbers. 8.42: Horrie Sheehan, trumpet—"Funny Notes" (Nicholls). 8.46: Joe Delany, tenor—"I Hear a Thrush at Eve" (Cadman), "The Star" (Rogers). 8.53: Paul Jeacle and his Band—"Do Something" (Green), "Big City Blues" (Conrad).

A CHORAL INTERLUDE. 9.0: Melbourne Philharmonic Society—Transmission from the Australian Church. Conductor: Professor Bernard Heinze. Pianist: Miss Isabel Adams. "Flora Gave Me Fairest Flowers" (John Wilbye), "In These Delightful Pleasant Groves" (Henry Purcell), "How Lovely are the Messengers" (Mendelssohn), "Arise Up, Arise" (Mendelssohn).

MORE DANCING AND SONG. 9.30: Paul Jeacle and his Band—"Let Me Dream in Your Arms Again" (Gilbert), "Trail of Dreams" (Sevan). 9.36: Kate Cornell, entertainer—"The Lady Who Obliges." 9.43: Guy Stavordale, banjo—"Gladys Waltz" (own composition). 9.47: Joe Delany, tenor—"From the Land of the Sky Blue Water" (Cadman), "Just a Cottage Small" (Hanley). 9.54: Paul Jeacle and his Band—"I'm Just in the Mood To-night" (Leslie), "The Hollow of a Hill" (Plong).

10.0: Weather information and "Herald" News. Cable news service (copyright), Australian Press Association and "Sun." "Herald" News Service, Ltd. 10.10: Charles Corum, bass—"Hardy Norsemen" (Wright). 10.14: Kate Cornell, entertainer—"Let Her Go to Jericho." 10.22: Paul Jeacle and his Band—"Laughing Marionette" (Collins), "Here We Are" (Kahn), "Round Evening" (Whiting). 10.30: God Save the King.

Ladies and Gentlemen!

Dear sirs, We have bin asked to write and tell you about the Christmas Issue, which is coming out on December the Thirteenth (13) which is a Friday, so Heaven help us and our wives and children and all the sailors at sea on a day like that. Well, we don't know much about the Christmas issue; but Steele Rudd is writing us a story and do you remember "Brasso"? well "Brasso's" writing us a story; and we shall be telling our usual lies from the same old stand on so will Mr. Hull. There will be many other interesting features, which the Editor is nearly writing his head off to collect; so buy "Wireless Weekly" if it's only to tide the needy over Christmas.

Yours sincerely and affectionately,

James

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual. (See Friday). 7.45: Lecture, "A Talk on Poultry," by Mr. P. Rumball, Poultry Instructor.

NIGHT SESSION. 8.0: The South Sea Hawaiians (conductor, A. McDonald)—"Rose of Honolulu," "Dark Hawaiian Eyes," "Sad Hawaiian Sea." 8.10: Double Male Quartette (conductor, Tom Muller)—"By the Blue Lagoon." 8.15: Norman Deans, steel guitar novelty, imitating the human voice singing in the distance. 8.18: Double Male Quartette—"I'm on my way to Mandalay" (Soloist, C. Rice). 8.23: A. McDonald, ukelele solos, "Paradise Isles," "Pale Moon."

8.30: Ernest Harper, baritone—"Avalon" (Jolson), accompanied by Double Male Quartette. 8.35: The South Sea Hawaiians—"Moonlight in Kalua," "Wild Party Girl."—"Just a Night for Meditation." 8.45: Frances Lane, contralto—"Shores of Minnetonka" (Kahn). 8.49: Claude Wearne, pianist, selected. 8.52: Double Male Quartette, "Down Beneath the Sheltering Palms." 8.56: Leth Moore and A. McDonald, guitar duets—"La Paloma," "Three O'clock in the Morning." 9.0: Metropolitan weather forecast. 9.1: Norman Deans, mechanical stick piano solo. 9.4: Leth Moore, steel guitar solo, "Laughing Rag." 9.14: Doug, Bouchard and A. MacDonald, ukelele duet, "Hawaiian Medley." 9.20: J. P. Cornwe, bass, "Maru! Ori!" 9.24: The South Sea Hawaiians—"Hilo March," "Just a Little Thing Called Love." 9.31: Double Male Quartette—"Oriental Maid" (Tate). Soloist, Fred Crane. 9.36: Norman Deans, steel guitar solos, "Hawaiian Chimes," "Sometime." 9.43: Frances Lane, contralto—"By the Blue Pacific" (Johnson). 9.47: A. MacDonald and N. Deans, guitar duets—"Beautiful," "Red Lips." 9.52: Double Male Quartette—"Song of Hawaii." 9.53: The South Sea Hawaiians—"Kohala March." 9.54: O. A. 10.0: News; weather; close.

5CL

Central Broadcasters, Ltd., 111 Hindmarsh Street, Adelaide (Wavelength, 409 Metres).

Morning Session, Afternoon Session, and Evening Session to 7.20: As usual. 7.20: Under the auspices of the Workers' Educational Association, Mr. R. F. Burdon, B.Sc., will speak. 7.35: Mr. H. Brewster-Jones will continue his series of talks, entitled "Art Culture of Native Races," by Dr. Herbert Basedow, M.P., in an interesting Australian talk.

NIGHT SESSION. 8.0: Chimes. 8.10: A request presentation of the opera, "Ti Pagliacci," in which the following artists will take part—Marcelle Berard, Malcolm Jones, Owen Collett, Fred Custer, Ann Young, Bert Woolley, and Chorus. Explanatory remarks by Bessie Francis; music by the Operatic Orchestra.

9.1: Meteorological information. 9.2: Overseas grain reports. 9.3: Announcements. 9.5: Continuation of the opera. 10.15: News; sports. 10.30: Dance music. 11.0: Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION, MORNING SESSION, MIDDAY SESSION, THE RADIO MATINEE, and EARLY EVENING SESSION, as usual.

EVENING SESSION—8.0: Chimes. 8.2: Metropolitan Orchestral Society Grand Concert. 9.1: Announcements. 9.5: Metropolitan Orchestral Society. 10.7: Dance Band. 10.59: Weather Report. 11.0: Close down.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldgs., Elizabeth Street, Hobart (Wavelength, 516 Metres).

11.30 a.m.: Sonora recital. 11.34: Midlands weather forecast. 11.35: Adeline Eager will speak on "Household Hints." 11.50: Sonora recital. 11.55: Tasmanian stations 9 a.m. weather report. 12.1: Shipping information; mail notices; Housewives Guide. 12.8: Sonora recital. 12.30: "Mercury" news service; announcements. 12.40: Sonora recital. 1.5: Railway auctions sales. 1.10: Sonora recital. 1.30: Close down. 3.0: G.P.O. clock chimes the hour. 3.1: Sonora recital. 3.4: Weather information. 3.5: Sonora recital. 3.45: Mrs. G. Rycroft on "Home Chats." 4.0: Sonora recital. 4.15: An educational talk on "Honey—Germany's 1928 Honey Imports." 4.30: Close down. 6.15: Children's Corner, with "Uncle David" and "The Story Lady." 7.10: Recorded music. 7.30: News session. 7.40: Belle St. Lawrence will continue her travel talks. 7.50: W. E. Fuller will speak on "Literary Lapses and Library dance music by the Diskus Dance Ensemble (interspersed with vocal numbers). 9.30: News session. 9.40: Dance numbers. 9.52: Slumber music. 10.0: G.P.O. clock chimes the hour. 10.1: Close down.

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Interstate Programmes, Wednesday, December 4

3LO

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 371 Metres).

EARLY MORNING SESSION.

7.0 to 8.15: See Friday.

MORNING SESSION.

10.30 to 12.30: As usual.

MIDDAY SESSION.

1.0 to 1.15: As usual. 1.30: Transmission from the Rotary Club Luncheon.

EDUCATIONAL AND SPORTING.

2.0: Reading—Lord Burleigh's Advice to His Son—Mr. John Coyne. 2.13: Description of Novice Handicap five furlongs, Ballarat Turf Club's Meeting at Dowling Forest, by Eric Welch. 2.20: Musical Interlude. 2.25: The Wonders of Nature—Mr. J. D. Jennings. B. Ag. Sc. 2.40: Musical Interlude. 2.43: Description by Eric Welch of Jumper Five Race, one mile and a quarter, Ballarat Turf Club's Meeting at Dowling Forest. 2.50: Modern Democracies—Hon. J. H. Keating, LL.B.

THE RADIO MATINEE.

3.3: Paul Jeacle and his Band—"Love Thrills" (Bryan). "There's a Four Leaf Clover" (Wending). 3.10: Alban Whitehead, baritone—"If I Might Come to You" (Squire). 3.13: Description by Eric Welch of Ballarat Turf Club Plate, six furlongs, Ballarat Turf Club's Meeting at Dowling Forest. 3.20: Alban Whitehead, baritone—"The Floral Dance" (Moss). 3.24: Bruce Wite, piano—"Sporks" (Mastman). 3.27: Doreen Berry, entertainer—"Husbands" (Leslie Wain). "Ain't It Nice?" 3.33: Paul Jeacle and his Band—"Sugar and Me" (Palmer). "Ella" (Cottler). 3.43: Description by Eric Welch of Greenfield Handicap, one mile, Ballarat Turf Club's Meeting at Dowling Forest. 3.50: Carmen Mascagni, soprano—"Solveig's Song" (Grieg). "Lament of Isis" (Bartok). 3.57: Paul Jeacle and his Band—"Let Me Dream in Your Arms Again" (Gilbert). "Last Night in Dreamy Slumberland" (Leslie). 4.3: Alban Whitehead, baritone—"Love's Old Sweet Song" (Molloy). Selected Solo—"The Swan" (Palmer). "Castles in the Air" (Smith). 4.13: Description of Ballarat Turf Club Purse, six furlongs, Ballarat Turf Club Races at Dowling Forest, by Eric Welch. 4.20: Doreen Berry, entertainer—"On Cecilia I Shall Have to Call the Guard" (L. Elliott). "The Funeral of the late Mrs. Odgson." 4.27: Carmen Mascagni, soprano—"I Know a Lovely Garden" (Hardenlot), selected. 4.34: Paul Jeacle and his Band—"Here We Are" (Kuhn). "Round Evening" (Whitney). 4.43: Description of Flying Handicap five furlongs, Ballarat Turf Club's Races at Dowling Forest, by Eric Welch. 4.50: Close down.

THE CHILDREN'S CORNER.

5.45: "Little Miss Kookaburra".
EVENING SESSION.
6.30: French and Home Soap. 6.40: Melody broadcast. 6.45: Cultivating Good Health—Some Common E-Dors Concerning the Teeth—Mr. F. P. Byrne. E.R. Sc. 7.0: Time signal. 7.1: Countryman's Session. 7.25: Modern Steels—Effect of Chromium on Steel—Prof. J. Neill Greenwood, D.Sc. 7.40: News. 7.45: Our Radio Service to Listeners—Mr. H. K. Love. 8.0: Time signal.

NIGHT SESSION.

8.0: National Broadcasting Orchestra—"Taramella" (Father Moreno, New Norcia, W.A.). 8.6: "Hale and Dale"—entertainers—Modern Melodies. 8.13: Leslie Raphael—Synopated Pianisms. 8.20: Fred. Whitlow—Two Character Sketches from Dickens. "Dan'l Peerygoff." "Granfather." **HALF AN HOUR WITH SCHUMANN.**
8.26: National Broadcasting Orchestra—A Selection of Schumann's Songs. 8.34: "Dedication"—A Love Story of Robert Schumann, introducing the Composer's most popular works, specially written for broadcasting by Gordon Treland.

AN INTERLUDE OF HILARITY.

9.4: "The Tatlers"—A Light Comedy Company—present "A Patchwork Revue." 9.24: National Broadcasting Orchestra—Selection from "Merrie England" (German). 9.34: A Song Cycle—"The Daisy Chain," by Liza Lehmann. Twelve Songs of Childhood: Quartette. "Foreign Children" (contralto). "Fairies" (baritone). "Keppake Mit" (soprano). "No One Ever Marries Me" (tenor). "Stars" ("Escape at Bedtime"): quartette. "Seeing the World" (contralto). "The Ship That Sailed Into the Sun" (soprano). "The Swing" (baritone). "Mustard and Cress" (tenor). "The Moon" (quartette). "Thank You Very Much Indeed": quartette. "Blind Man's Buff." Singers: Soprano, Madame Ella Kingston; contralto, Miss Winnie Mayberry; tenor, Mr. Val. Wofsy; baritone, Mr. Ernest Sage.
POP MUSIC.
9.57: National Broadcasting Orchestra—Duet for Flute and Clarinet. "Lo, Here the Gentle Lark" (Whipp). Oriental Intermezze. "Egyptia" (Zamecnik).

POPULAR MUSIC.

10.5: "Hale and Dale"—More Popular Melodies. 10.13: Leslie Raphael—Synopated Pianisms. 10.20: British Official Wireless News. Meteorological information. Items of interest. 10.30: Paul Jeacle and his Band—Dance Music. 11.0: God Save the King.

3AR

Australian Broadcasting Co., 120A Russell St., Melbourne (Wavelength, 181 Metres).

MORNING SESSION.

8.15 to 11.0: As usual.

MIDDAY SESSION.

12.0 to 2.0: As usual.

AFTERNOON SESSION.

2.1: Quartette—Virtuoso String Quartette. 2.8: So-

prano—Dusolina Giannini. 2.13: Piano and Cello—Beatrice and Margaret Harrison. 2.20: Soprano—Dusolina Giannini. 2.24: Orchestral—Mark Weber and his Orchestra. 2.28: Comedian—Frank Crumit. 2.31: Entertainers—Rudy Valee and his Connecticut Yankees. 2.34: Monologue—Leonard Henry. 2.37: Hawaiian Music—Hilo Hawaiian Orchestra. 2.40: Comedienne—Helen Kane. 2.43: Band—H.M. Coldstream Guards Band. 2.49: Violin—Fritz Kreisler. 2.52: Soprano—Margaret Sheridan. 2.55: Band—H.M. Coldstream Guards Band. 2.58: Quartette—De Reszke Singers Male Quartette. 3.1: Request Numbers. 3.20: The Pre-School Child—Creating a Love for Music—Miss M. Lush. 3.35: Musical Interlude. 3.40: Home Management—Scientific Cleaning—Miss Kathleen Beningsfield. 3.55: Musical Interlude. 4.0: Women's Status in Other Countries—Mrs. Nora Collison. 4.15: Musical Reproduction. 5.0: G.P.O. Chimes. 5.1: Musical Reproduction. 5.30: Weather data. 5.45: Close down.

EVENING SESSION.

6.15: Dinner Music. 7.30: What's on the Air Tonight? 7.32: Sporting Results. 7.35: Latest Musical Releases. 8.0: G.P.O. Chimes.

NIGHT SESSION.

8.1: Why We Behave as Human Beings—The Acquisitive Instinct—Prof. J. A. Gunn, M.A., B.Sc., Ph.D. 8.15: St. Vincent de Paul's Band—Selection, "Echoes of the Opera" (Rimmer). 8.25: Russell Cullow, tenor, and R. Nicholson, bass—"The Gendarmes" (Offenbach). "Vale" (Kennedy Russell). 8.32: Pierrot and Pierrette—Pierrot with the piano and Pierrette with her saxophone. 8.40: Jessie McMichael, soprano—"The Flutes of Arcady" (W. G. James). "TipToe" (Molly Carey). 8.47: St. Vincent de Paul's Band—Descriptive: "From a Russian Village" (Marsden), Overture to "Faust" (Gounod). 8.57: Alan Bell, comedian—"Viola" (Sterndale Bennett). 9.5: St. Vincent de Paul's Band—Cornet Solo. "Parted" (Tosti). 9.9: Russell Cullow, tenor, and R. Nicholson, bass—"Soldiers and Comrades" (Adami). "The Two Beggars" (Lane Wilson). 9.16: St. Vincent de Paul's Band—Waltz. "Amour-euse" (Berger). Medley. "Savoy Welsh" (Somers). 9.24: Jessie McMichael, soprano—"Love Went A'Riding" (Frank Bridge). "Dream Valley" (Quilter). 9.31: Pierrot and Pierrette—Pierrette with her Saxophone and Pierrot with the Piano. 9.39: A Mystery Story—"The Idol's Eyes"—J. Howlett Ross. 9.54: St. Vincent de Paul's Band—Selection. "William Tell" (Rossini). 10.4: Weather and News. 10.14: Alan Bell, comedian—"The Independent Candidate" (Seaton). 10.22: St. Vincent de Paul's Band—Selection. "Gems of Harmony" (Rimmer). 10.30: God Save the King.

4QG

Queensland Government Radio Service, Brisbane (Wavelength, 385 Metres).

Day sessions as usual. (See Friday). 7.45: Lecture, a talk arranged by the Queensland Agricultural High School and College.

NIGHT SESSION.

8.0: The Studio Dance Orchestra, dance music. 8.10: Mrs. Lillian Corrigan, harpiste, selected melodies. 8.20: The Studio Dance Orchestra, dance music. 8.30: John Morrison, entertainer—"Norah" (Anon.). "The Bachelor" (Anstey). 8.40: The Studio Orchestra, dance music. 8.50: Walter Land, tenor—"The Pirate" (Turner-Haley). "Like Stars above" (Squire). 9.0: Metropolitan weather forecast; movements of lighthouse steamers. 9.5: The Studio Dance Orchestra, dance music. 9.15: Joyce Buchanan, soprano—"The Passing of the Moon" (Purcell). "Once a Farmer and his Wife" (Welsh folk song). 9.25: The Studio Dance Orchestra, dance music. 9.35: Monument and Harrow, another argument. 9.50: The Studio Dance Orchestra, dance music. 10.0: News and weather. 10.15: The Studio Dance Orchestra, dance music. 10.25: Arthur Aldridge, tenor, selected numbers. 10.35: The Studio Dance Orchestra, dance music. 11.0: Close down.

5CL

Central Broadcasters, Ltd., 114 Hindmarsh Square, Adelaide (Wavelength, 409 Metres).

Morning Session, Afternoon Session, and Evening Session to 7.40: As usual. 7.40: Rev. E. S. Klek, M.A., B.D., will speak on "A Henpecked Hero." 7.55: An address to Boy Scouts.

NIGHT SESSION.

8.10: The Cotton Pickers—"The Savoy American Medley" (Somers). "Honey" 8.17: Community singing by the Apollo Radio Choir. 8.27: Helen Fisher, violinist—"Hejne Kati" (Hubay). 8.32: Gladys Harvey, soprano, selected. 8.39: The Cotton Pickers, "That's Her Now." 8.43: Harold Durdin, baritone—"The Lute Player"

(Alltsten). "The Song of the Tinker." 8.50: A one-act play (produced by Beryl Alford), in which Beryl Alford and Frank Johnstone will take part.

9.0: Chimes. 9.1: Weather. 9.2: Overseas grain report. 9.3: Announcements. 9.5: Community singing by the Apollo Radio Choir. 9.15: The Cotton Pickers, "Invercargill March." 9.19: Gladys Harvey, soprano, selected. 9.28: Helen Fisher, violinist. "Capriccio Viennols" (Kreisler). 9.30: Harold Durdin, baritone—"Somewhere South of Shanghai" (Lumsdaine). "Tally Ho" (Leon). 9.37: Instrumental number. 9.41: Community singing by the Apollo Radio Choir. 9.51: Helen Fisher, violinist. "Air on G String" (Bach). 9.55: Beryl Alford, elocutionist. 10.0: The Cotton Pickers, "Rio Rita" (Tierney). 10.4: Community singing by the Apollo Radio Choir. 10.15: News; sporting. 10.30: Dance music. 11.0: Close down.

6WF

Australian Broadcasting Company, Ltd., Wellington Street, Perth (Wavelength, 435 Metres).

EARLY MORNING SESSION, MORNING SESSION, MIDDAY SESSION, THE RADIO MATINEE, and EARLY EVENING SESSION, as usual. **EVENING SESSION—8.0:** Chimes. 8.2: Grand Concert arranged by the Coolgardie Liedertafel, Perth. 9.1: Announcements. 9.5: Coolgardie Liedertafel. 10.5: Dance Band. 10.59: Weather. 11.0: Close down.

7ZL

Tasmanian Broadcasters Pty., Bursary Bldg., Elizabeth Street, Hobart (Wavelength, 510 Metres).

11.30 a.m.: Selections. 11.34: Midlands weather forecast. 11.35: Selections. 11.55: Tasmanian stations 9 a.m. weather report. 12.0: G.P.O. clock chimes the hour. 12.1: Shipping information; mail notices; Housewives' Guide. 12.8: Selections. 12.30: "Literary" news service; announcements. 12.40: Selections by the Melody Masters. 1.5: Railway auction sales. 1.10: Selections by the Melody Masters. 1.30: Transmission from the Imperial Hotel, Collins Street, Hobart—speeches at the Rotary Club luncheon. 2.0: Close down. 2.1: Selections. 3.4: Weather information. 3.5: Selections. 4.15: Readings from the "Illustrated Tasmanian Mail." 4.30: Close down. 6.15: Children's Corner, with Bertha Southey Brammall. 7.10: Recorded music. 7.30: News session. Mrs. O. Ryeroff will continue her talks on "Local Industries." 7.50: James Council will speak on "Topics of the Week." 8.1: Selections. 8.15: A record recital of popular numbers specially arranged by Findlay's Music Warehouse. 9.30: News session. 9.45: Record recital. 10.0: G.P.O. clock chimes the hour. 10.1: Close down.

2UW

Radio Broadcasting, Ltd., Palling's Building, Ash St., Sydney (Wavelength, 267 Metres).

MIDDAY SESSION

12.30 to 4.30, as usual.

EVENING SESSION

5.30: Children's Hour. 6.30: Close. 7.0: Request numbers. 7.45: Talk by Mr. F. E. Buckell, "Photo-electric cell and its applications." 7.50: Music. 8.0: Band concert. 9.0: Comments on Foreign Affairs by Mr. J. M. Prentice. 9.10: Music. 10.30: Close.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EARLY MORNING SESSION, 7.15 to 8.30: as usual.

MIDDAY SESSION, 10.0 to Noon:

as usual. **EVENING SESSION.**
6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Orchestral Dinner Concert. 7.55: News from the "Sun." 8.0: Clock and Chimes. 8.1: Overture. "Semiramis." 8.10: Vocal and Orchestral Items. 10.15: Close down.

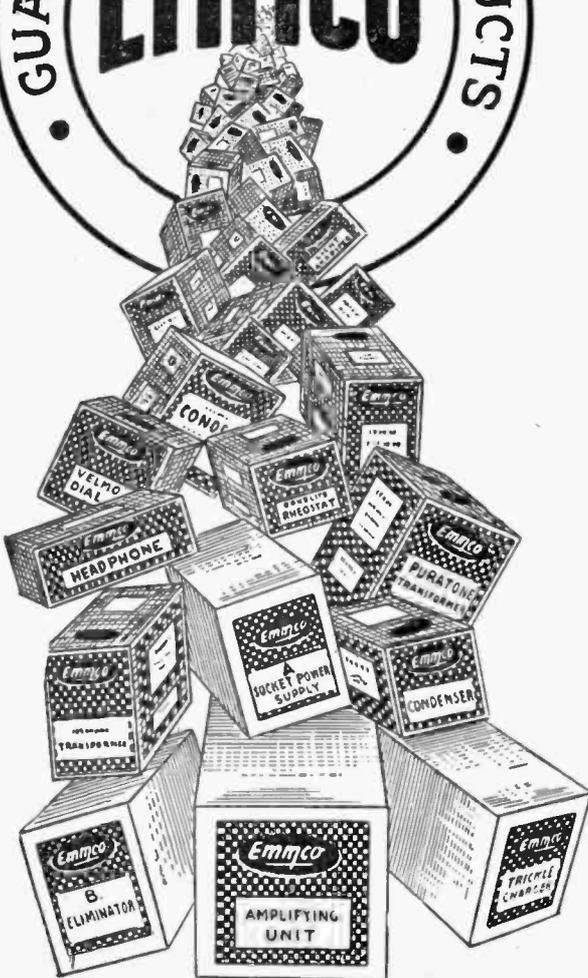
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Local Programmes, Wednesday, December 4

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Sydney Morning Herald."
- 7.8: Austradio musical reproduction
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the Studio.
- 8.15: CLOSE.

MORNING SESSION AND AFTERNOON SESSION

- 10.30: Announcements.
- 10.32: General sporting talk by Oscar Lind.
- 10.45: HORACE WEBER at the GRAND ORGAN.
- 11.0: HOUSEHOLD HELPS—Cooking, by Miss Ruth Furst.
- 11.10: CABLES (Copyright). "Sun"—"Herald" and A.P.A. news service.
- 11.15: MORNING DEVOTION FROM THE 1929 RADIO DISPLAY AT THE STATE SHOPPING BLOCK.
- 11.30: Austradio musical reproduction
- 11.53: British official wireless press.
- 12.0: "Big Ben"; Stock Exchange and metal quotations.
- 12.5: A. A. BOWLES will speak on "Roads versus Railways."
- 12.20: Midday weather forecast and weather synopsis; special produce market session for the man on the land, supplied by the State Marketing Board
- 12.30: Studio Music.
- 12.50: FROM WARWICK FARM—Description of the races in the running. Musical programme from the Studio during intervals between the races.
- NOTE.—2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 4.25: FROM THE STUDIO—Stock Exchange third call
- 4.30: Late sporting results
- 4.45: CLOSE

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 6.45: Children's "Goodnight" stories, told by the "Hello Man" assisted by Uncle Ted and "Sandy"
- 6.47: Dinner-hour music.
- 7.20: A.B.C. Sporting Service
- 7.25: Special country session—Stock Exchange resume; markets; weather forecast; late news service from the "Sun" and "News"; truck bookings
- 7.55: To-night's programme

THE EVENING PRESENTATION—8 to 11.30 p.m.

- The Debate which we offer to-night—"Are Women Mentally Equal to Men?"—which will be undertaken by C. N. Baeyertz and Mrs. Albert Littlejohn will provide an unusually interesting interlude. Band Music by the Metropolitan Band. Professor Randall Woodhouse in Songs from Sims Reeves' repertoire, and Cello Solos, will complete a varied programme. Through 2PL the Overture and Presentation from the State Theatre, and H. W. Varna's Play, "The Skipper's Life," are featured.
- 8.0: THE METROPOLITAN BAND—
 - (a) Quick March, "The Outpost" (Robertson).
 - (b) Fantasia "The Circus" (Lithgow)
- 8.15: PROFESSOR RANDALL WOODHOUSE in Songs from Sims Reeves' Repertoire—
 - (a) "Come into the Garden, Maud" (Balfe)
 - (b) "My Pretty Jane" (Bishop).
- 8.23: A DEBATE—"Are Women Mentally Equal to Men?" by C. N. Baeyertz and Mrs. Albert Littlejohn.
- 8.43: ANNE MILLS, Mezzo—
 - (a) "To Sleep" (Tschaikowsky).
 - (b) "Only for Thee" (Tschaikowsky).
- 8.50: MURIEL LANG, Cello Solos—"Adagio" from Concerto (Dvorak).
- 8.57: THE COUNTRY MAN'S WEATHER SESSION—
 - (a) New South Wales Forecasts.
 - (b) Interstate Weather Synopsis.

- 9.0: THE METROPOLITAN BAND—Selection, "Robert the Devil" (Meyerbeer).
- 9.15: PROFESSOR RANDALL WOODHOUSE, in more Songs from Sims Reeves' Repertoire—
 - (a) "Deeper and Deeper Still" (Handel).
 - (b) "Wait Her Angels" (Handel).
- 9.22: MURIEL LANG, Cellist—
 - (a) "Serenade" (Hans Sitt).
 - (b) "Gavotte" (Lully).
- 9.29: THE METROPOLITAN BAND—Intermezzo, "Somewhere in France" (Homan).
- 9.35: ANNE MILLS, Mezzo—
 - (a) "Softly Awakes My Heart" (Saint-Saens).
 - (b) "From the Land of the Sky Blue Water" (Cadman).
- 9.52: THE METROPOLITAN BAND—Waltz, "Ruby" (Homan).
- 10.2: A CELEBRITY RECITAL.
- 10.15: ANNOUNCEMENTS.
- Late Official Weather Forecast.
- 10.30: FROM THE BALLROOM OF THE ORIENTAL—Sydney Simpson's Syncopaters in Dance Music.
- 11.30: CLOSE NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 333 Metres)

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements
- 8.16: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Mails and shipping information.
- 8.50: Memory melodies.
- 9.0: This morning's story.
- 9.30: A musical interlude.
- 9.40: British Official Wireless Press.
- 9.45: New music.
- 10.5: News from the "Sydney Morning Herald"
- 10.10: Austradio musical reproduction
- 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley
- 11.0: G.P.O. chimes. Close down

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
- 12.2: A pianoforte recital.
- 12.30: LUNCH-HOUR MUSIC.
- 1.0: Afternoon news from "The Sun" and "Evening News."
- 1.5: Austradio musical reproduction.
- 2.0: J. KNIGHT BARNETT at the "Wurlitzer."
- 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.30 to 5.45 p.m.

- 2.30: FROM THE 1929 RADIO DISPLAY AT THE STATE SHOPPING BLOCK.
- 2.30: HALF-HOUR WITH SILENCE FRIENDS
- 3.0: ROMANO'S DANCE ORCHESTRA conducted by Bennie Abrahams.
- 3.12: JAMES WALKER, pianist.
 - (a) "Capriccio in E Major" (Scarlatti).
 - (b) "Largo" from "Sonata in B Minor" Op. 58 (Chopin).
- 3.22: ROMANO'S DANCE ORCHESTRA conducted by Bennie Abrahams.
- 3.32: MODERN MUSIC.
- 3.45: GOODIE REEVE will give some "Aids to Personality."
- 4.0: ROMANO'S DANCE ORCHESTRA conducted by Bennie Abrahams.
- 4.12: JAMES WALKER, pianist.
 - (a) "Prelude in C Major" (Chopin).
 - (b) "Naila Waltz" (Delibes-Dohnanyi).
- 4.22: ROMANO'S DANCE ORCHESTRA conducted by Bennie Abrahams
- 4.32: MEMORY MELODIES.
- 4.45: The Trade Hour—demonstration music
- 5.45: Weather information. Close down

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
- 6.45: THE BOYS' RADIO CLUB, conducted by Mr. Norman Lyons.
- 7.5: The Country Man's market session. Wool, wheat, stock, farm produce, fruit and vegetable markets.
- 7.20: DINNER MUSIC.
- 7.45: Austradio musical reproduction.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

2BL will feature to-night the overture and presentation from the State Theatre. The play by the H. W. Varna Company, "The Skipper's Life," is on frivolous lines.

Through 2FC service a programme of band music, contributed by the Metropolitan Band, and unusual debate, "Are Women Mentally Equal to Men?" by C. N. Baeyertz and Mrs. Albert Littlejohn; Professor Randall Woodhouse, in Sims Reeves' Repertoire, will provide an interesting and varied evening's entertainment.

8.0: FROM THE STATE THEATRE. The State Orchestra, under the direction of Will Prior, with Price Dunlavy, at the grand organ.

8.8: FROM THE STUDIO. ALEXANDER HMELNITSKI, pianist (a) "First Arabesque" (Debussy). (b) "Alt-Wien" (Godowsky). (c) "A Musical Snuff-Box" (Liadow).

8.20: FROM THE STATE THEATRE. The State Orchestra, under the direction of Will Prior.

8.32: FROM THE STUDIO. EMIL SUSSMILCH, baritone. (a) "Starry Summer Night" (Debussy). (b) "The Rose Morn" (Ronald). (c) "A Page's Road Song" (Novello). (d) "When I Awake" (Alfred Hill).

8.40: VINCENT ASPEY, violinist. (a) "The Hunt" (Chiabrano). (b) "Serenade" (Lehar).

8.47: FROM THE STATE THEATRE. The State Theatre Orchestra, under the direction of Will Prior. Price Dunlavy at the grand organ.

8.57: FROM THE STUDIO—THE H. W. VARNA COMPANY, in a radio play, entitled, "THE SKIPPER'S LIFE."

9.28: Weather information for the man on the land.

9.30: FROM THE STATE THEATRE Stage presentation.

9.35: FROM THE STUDIO. ALEXANDER HMELNITSKI, pianist "Soiree de Vienne" from "Fledamaus" (Strauss-Grunfeld).

9.47: EMIL SUSSMILCH baritone (a) "Although" (Ronald). (b) "The Wayfarer" (Allitsen). (c) "Who Knows?" (Tosti). (d) "The Slighted Swain" (Lane Wilson)

10.4: VINCENT ASPEY, violinist. "Introduction and Tarantelle" (Sarasate) "Pale Moon" (Logan).

10.11: AUSTRADIO MUSICAL REPRODUCTION.

10.25: Late news from "The Sun" and "Evening News."

Late weather forecast.

10.30: NATIONAL ANTHEM. CLOSE

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45. 2.0 to 3.30, 5.15 to 8.0: As usual.
- 8.0: Miss Maesmore Morris, contralto
- 8.7: Instrumental Trio.
- 8.15: Mr. Edward Barry, baritone.
- 8.22: Symphony Orchestra.
- 8.30: Miss Nora Mack, soprano.
- 8.38: Violin solos.
- 8.45: Mr. Jack Win and Mr. Heath Burdock, humour.
- 8.50: Miss Maesmore Morris, contralto.
- 9.0: Weather report.
- 9.3: Address.
- 9.15: Instrumental Trio.
- 9.25: Mr. Edward Barry, baritone.
- 9.35: Mr. Jack Win and Mr. Heath Burdock, humour.
- 9.40: Symphony Orchestra.
- 9.50: Miss Nora Mack, soprano.
- 10.0: Instrumental Music.
- 10.30: Close.

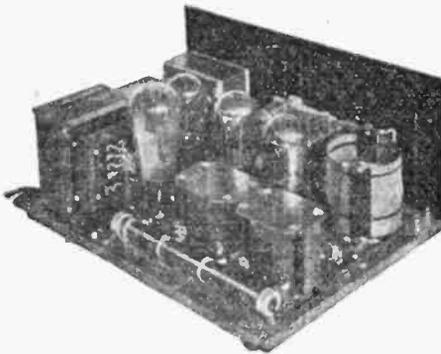
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2—1 "C" Bias resistance	0	13	9
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4—1 Kelford or any standard UY socket	0	2	6
5—1 .00025 fixed condenser	0	1	6
6—1 1 Meg grid leak	0	1	6
7—3 National centre tap resistances	0	4	6
8—1 Lewbury power transformer			
9—1 choke	3	10	0
10—2 1 mfd. fixed condensers, TCC 250 v. AC	0	8	0
11—2 4 mfd. fixed condensers, TCC 250 v. AC	0	15	6
12—1 Radio Frequency Choke	0	6	6
13—1 Radiokes All-Electric Tuner	0	11	9
14—1 Amsco or any reliable .0005 condenser Var	0	10	6
1 Vernier Dial	0	6	9
15—1 Essanay 23-plate midget condenser	0	8	6
16—1 Fixed condenser, .0005	0	1	6
Aerial, Earth, Speaker, Pick-up Terminals	0	1	0
Hook-up Wire	0	2	6
1 Vox or standard American AC tube 226	0	12	6
1 Vox or standard American AC tube 227	1	2	6
1 Vox or standard American AC tube 171A	0	15	0
1 Vox or standard American AC tube 280	1	5	0
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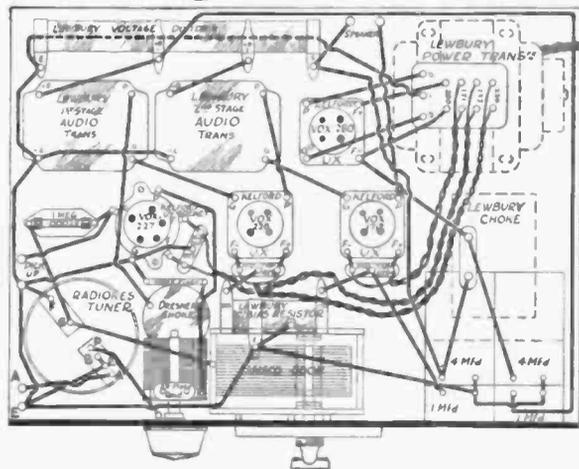
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32 Clarence Street, Sydney

Local Programmes, Thursday, December 5

2FC

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 451 Metres).

EARLY SESSION—7 to 8.15 a.m.

- 7.0: "Big Ben" and meteorological information for the man on the land.
- 7.3: This morning's news from the "Sydney Morning Herald."
- 7.7: Austradio musical reproduction.
- 7.45: Mails and shipping.
- 7.48: What's on to-day?
- 7.50: Children's birthday calls.
- 8.0: Music from the studio.
- 8.15: CLOSE.

MORNING SESSION—10.30 a.m. to 12.30 p.m.

- 10.30: Announcements.
- 10.32: A.B.C. Racing Observer.
- 10.45: HORACE WEBER at the GRAND ORGAN.
- 11.0: HOUSEHOLD HELPS: Domestic Notes by Miss Ruth Furst.
- 11.10: CABLES (Copyright). Sun-Herald and A.P.A. News Service.
- 11.15: MORNING DEVOTION.
- 11.30: Austradio musical reproduction.
- 11.53: British Official Wireless Press.
- 12.0: "Big Ben"; Stock Exchange and metal quotations.
- 12.5: ELEANOR ROSS—"With the Poets—Alfred Tennyson."
- 12.20: Midday weather forecast and weather synopsis. Special produce market session for the man on the land, supplied by the State Marketing Board.
- 12.30: CLOSE.

THE LUNCH HOUR—1 to 2.30 p.m.

- 1.0: Lunch-hour music.
- 2.0: Stock Exchange, second call.
- 2.2: A glance at the afternoon "Sun" and "News."
- 2.7: To-day's acceptances, by the A.B.C. Racing Observer.
- 2.17: Studio music.
- 2.27: Announcements.

THE RADIO MATINEE—2.30 to 4.30 p.m.

- 2.30: THE POPULAR TRIO.
- 2.42: GERTRUDE GRAY, mezzo-soprano—(a) "Pale Moon" (Logan). (b) "Trees" (Rasbach).
- 2.49: THE POPULAR TRIO.
- 3.0: C. N. BAEYERTZ will speak on "Spoken English."
- 3.15: THE POPULAR TRIO.
- 3.30: GERTRUDE GRAY, mezzo-soprano. (a) "Still as the Night" (Bohm). (b) "Sunday" (Brahms).
- 3.37: MODERN BALLADS.
- 3.52: THE POPULAR TRIO.
- 4.0: MRS. E. HUME will tell of "Experiences of a Lady Announcer."
- 4.15: THE POPULAR TRIO.
- 4.28: Stock Exchange, third call.
- 4.30: CLOSE.

EARLY EVENING SESSION—5.45 to 7.55 p.m.

- 5.45: Children's "Good-night" stories, told by Aunt Goodie.
- Ward Leopold, the Strummin' Serenader.
- 6.45: Dinner-hour music.
- 7.20: A.B.C. sporting service.
- 7.25: Special country session. Stock Exchange resume. Markets. Weather forecast. Late news from the "Sun" and "News." Truck bookings.
- 7.58: To-night's programme.

THE EVENING PRESENTATION—8 to 11.30 p.m.

Our feature to-night is the "Miser's Scene" from "La Cloches de Corneville." This will be preceded by a short humorous sketch, "Father Buys a Crystal Set." 2BL offers a little of everything, unusual brass quartette numbers, song groups, droll Irish stories, violin solos, smart monologues, a talk of interest, and the weekly sound film feature.

- 8.0: FROM THE CAPITOL THEATRE: The Overture, Horace Sheldon and the Capitoliens. J. Knight Barnett at the Wurlitzer.
- 8.12: FROM THE STUDIO: PEGGY DUNBAR, contralto.
- 8.19: FROM THE CAPITOL THEATRE: J. KNIGHT BARNETT AT THE WURLITZER.
- 8.29: "FATHER BUYS A CRYSTAL SET"—A comedy sketch, in one act, by Lynwood Roberts and Company.

8.49: THE COUNTRY MAN'S WEATHER SESSION—

- (a) New South Wales forecasts.
- (b) Inter-State weather synopsis.
- 8.51: THE MISER'S SCENE FROM "LA CLOCHES DE CORNEVILLE." Under the direction of Lynwood Roberts, who will play the part of the Miser. Vocal numbers by the Wireless Singers, directed by Joseph Post.
- 9.31: FROM THE CAPITOL: The Stage Presentation. Horace Sheldon's Capitoliens, with J. Knight Barnett at the Wurlitzer.
- 9.48: FROM THE HOTEL AUSTRALIA: Cec. Morrison's Dance Band.
- FROM THE STUDIO—
- 10.0: ILLUSTRATED MUSIC LECTURE—"The Art Song"
- 10.15: Announcements.
- Late official weather forecast.
- 10.28: FROM THE HOTEL AUSTRALIA: Cec. Morrison's Dance Band.
- 11.30: CLOSE. NATIONAL ANTHEM.

2BL

Australian Broadcasting Company, Ltd., Market St., Sydney (Wavelength, 353 Metres).

OPENING SESSION—8.15 to 11 a.m.

- 8.15: G.P.O. chimes and announcements.
- 8.16: Music for every mood.
- 8.40: Meteorological data for the country.
- 8.45: Mails and shipping information.
- 8.50: Memory melodies.
- 9.0: This morning's story.
- 9.30: A musical interlude.
- 9.40: British official wireless press.
- 9.45: New music.
- FROM THE 1929 RADIO DISPLAY AT THE STATE SHOPPING BLOCK.
- 10.2: News from the "Labor Daily."
- 10.5: News from the "Sydney Morning Herald."
- 10.10: Austradio musical reproduction.
- 10.40: THE AUSTRALIAN BROADCASTING COMPANY'S WOMEN'S ASSOCIATION, conducted by Miss Gwen Varley
- 11.0: G.P.O. chimes. Close down.

MIDDAY SESSION—12 noon to 2.30 p.m.

- 12.0: G.P.O. chimes and announcements.
- 12.2: A pianoforte recital.
- 12.30: LUNCH-HOUR MUSIC.
- 1.0: Afternoon news from the "Sun" and the "News."
- 1.5: Austradio musical reproduction.
- 2.0: J. KNIGHT BARNETT at the Wurlitzer.
- 2.12: Studio music.

AFTERNOON ENTERTAINMENT—2.50 to 5.45 p.m.

- 2.30: HALF AN HOUR WITH SILENT FRIENDS.
- 3.0: ROMANO'S DANCE ORCHESTRA, under the direction of Bennie Abrahams.
- 3.12: CLIFF HANNEY, violinist—(a) "Serenade Espagnole" (Chaminade-Kreisler). (b) "Spanish Dance" (Grandos-Kreisler).
- 3.19: A NEW SONG.
- 3.22: ROMANO'S DANCE ORCHESTRA, under the direction of Bennie Abrahams.
- 3.32: MODERN MUSIC.
- 3.45: ROSE ANTILL DE WARREN will give a talk.
- 4.0: ROMANO'S DANCE ORCHESTRA, under the direction of Bennie Abrahams.
- 4.12: CLIFF HANNEY, violinist—(a) "Pale Moon" (Logan-Kreisler). (b) "Canzonette" (D'Ambrosio).
- 4.19: SONGS OF YESTERDAY.
- 4.26: ROMANO'S DANCE ORCHESTRA, under the direction of Bennie Abrahams.
- 4.36: A pianoforte recital.
- 4.45: The Trade Hour—Demonstration music.
- 5.45: Weather information. Close down.

THE DINNER HOUR—6.15 to 7.55 p.m.

- 6.15: DINNER QUARTET.
- 6.45: THE GIRLS' RADIO CLUB, conducted by Miss Gwen Varley.
- 7.5: The Country Man's Market Session—Wool, wheat, stock, farm produce, fruit, and vegetable markets.
- 7.20: DINNER MUSIC.
- 7.45: Austradio musical reproduction.
- 7.55: What's on the air to-night?

TO-NIGHT'S PRESENTATION—8 to 10.30 p.m.

2BL's programme to-night is on popular lines, with unusual Brass Quartette items,

droll Irish humor, snappy monologues, violin solos—here is a little of everything to titillate the public taste. Thursday is 2FC's play night, and this evening "The Miser Scene," from "La Cloches de Corneville," under the direction of Lynwood Roberts, a short sketch, "Father Buys a Crystal Set," to add spice of humor to the programme.

- 8.0: NEWTOWN BRASS QUARTET—"Spring" (Round).
- 8.8: DROLL IRISH HUMOR.
- 8.11: MARJORY ALLOMES, contralto—(a) "Si vous l'aviez compris" (Denza). (b) "The Last Hour" (Kramer).
- 8.18: DULCIE BLAIR, violinist—(a) "Meditation," from "Thais" (Massenet). (b) "Liebesleid" (Kreisler).
- 8.25: ANOTHER JEST FROM THE SON OF ERIN.
- 8.28: 2BL'S WEEKLY SOUND FILM FEATURE.
- 8.44: WARD LEOPOLD, the Strummin' Serenader—(a) "Pagan Love Song." (b) "Heart of Mine" (Silvers).
- 8.49: DOROTHY NALL, monologues—(a) "We Ain't Ari Proud of Dad" (Cory). (b) "One Little One More" (Bennett).
- 8.56: ROGER JONES and ANNE LUCIANO, vocal duets—(a) "Homeward to You" (Coates). (b) "Deep Night" (Henderson). (c) "I Love to Hear You Singing" (Wood). (d) "Pagan Love Song."
- 9.3: MORE IRISH QUIPS.
- 9.8: NEWTOWN BRASS QUARTET—"Summer" (Round).
- 9.15: MARJORY ALLOMES, contralto—(a) "The Fuchsia Tree" (Quilter). (b) "Dreaming of Home" (Arr. Besley).
- 9.22: "PAT SAID TO MIKE."
- 9.28: Weather information for the man on the land.
- 9.30: A talk by FRED ARLINGTON-LURKE on "Australia and Recent American Financial Crash."
- 9.45: DULCIE BLAIR, violinist—(a) "Poem" (Fibich). (b) "Slavonic Fantasia" (Dvorak-Kreisler).
- 9.52: ANNE LUCIANO, soprano—"Full Moon" (Woolmer). ROGER JONES, baritone—"For Remembrance" (Woolmer).
- 10.2: DOROTHY NALL, monologues—(a) "Second Hand Rose" (Hanley). (b) "Aren't Men Funny Creatures" (Elliot).
- 10.12: NEWTOWN BRASS QUARTET—"Autumn" (Round).
- 10.20: IRISH NIGHTCAP.
- 10.25: Late news from the "Sun" and "News." Late weather forecast.
- 10.30: NATIONAL ANTHEM. CLOSE.

2GB

Theosophical Broadcasting Station, 29 Bligh St., Sydney (Wavelength, 316 Metres).

- 10.0 to 11.45, 1.30 to 4.0, 5.15 to 8.0: As usual.
- 8.0: Miss Edna Lister, contralto.
- 8.7: Band Selections.
- 8.15: Mr. Leslie Herford, baritone.
- 8.22: Instrumental Quartette.
- 8.30: Mr. Jack Win and Miss Nora Windle in a Humorous Sketch.
- 8.40: Symphony Orchestra.
- 8.50: Miss Gwen Selva, soprano.
- 9.0: Weather report.
- 9.3: Address.
- 9.15: Band Selections.
- 9.25: Miss Edna Lister, contralto.
- 9.35: Mr. Jack Win and Miss Nora Windle in a Humorous Sketch.
- 9.45: Symphony Orchestra.
- 9.50: Mr. Leslie Herford, baritone.
- 10.0: Instrumental Music.
- 10.30: Close down.

2UE

Broadcasting Station 2UE, Everett Street, Maroubra, Sydney (Wavelength, 293 Metres).

EVENING SESSION.

- 6.30: Wendy's Hour with the Children, and Birthday Greetings. 7.15: Dinner Music. 7.55: Programme announcements and news from the "Sun." 8.0: Clock and Chimes. 8.1: Overture; "Pique Dame" Fantasia. 8.10: Instrumental Selections. 10.15: National Anthem.