# **Programmes** Continued

(Continued from page 11.)

8.8: Tenor solo-Mr. T. G. Rogers, "Be Thou Faithful Unto Death" (Men-

delssolm).

8.12: Violin solo—Mr. Laurian Beck, "Romance, No. 1" (McFarren).

8.16: Contralto solo—Miss Nellie Lowe, "Our Blest Redeemer" (Newton).

8.20: Vocal quartet—Dulcet Quartet, "God is a Spirit" (Bennett).

8.24: Instrumental trio—Mr. Laurian Beck, Miss Nellie Elwood, and Mill Aileen Warren, "Allegro and Moderato from Trio, Op. 181" (Gur-

8.32: Baritone solo-Mr. A. G. Thompson, "Crossing the Bar" (Willeby). 8.36: Soprano solo-Miss Mary Shaw, "None but the Weary Heart" (Tschai-

kowsky).

8.40: 'Cello solo—Miss Nellie Elwood, "Bouree" (Handel).

8.45: Contralto and baritone duet—Miss N. Lowe and Mr. A. G. Thompson, 
"Glory to Thee, My God, This Night" (Gounod).

8.49: Tenor solo—Mr. T. G. Rogers, "The Light Divine" (Bonheur).

8.53: Instrumental trios—Mr. Laurian Beck, Miss N. Elwood, and Miss A. 
Warren, (a) "Traumerai" (Schumann); (b) "Laguna Lullaby" 
(Hope); (c) "Waltz" (Taylor).

9.2: Contralto solo—Miss Nellie Lowe, "God's Slumberland" (Gray).

9.6: Vocal quartet—Dulcet Quartet, "How Lovely Are Thy Messengers" 
(Mendelssohn).

(Mendelssohn).

God Save the King.

## 4YA DUNEDIN (463 METRES)—SUNDAY, APRIL 15.

5.30 p.m.: Children's song service, conducted by Big Brother Bill. 6.30: Sacred service and concert by the International Bible Students' Associa-

8.0: Relay from His Majesty's Theatre of concert by the Kaikorai Band, under the conductorship of Mr. E. Franklin.

9.15 Close down.

## 2YA FEATURES

The Meiody Four will present a programme of popular numbers at 2YA on Saturday, April 14. An original quartet arrangement of the stirring "Scots Wha Hae" will be the opening the control of the stirring are the stirring that the stirring will be the opening the stirring will be the stirring the stirring will be the spening that the stirring will be the stirring will be the stirring that the stirri item, and the more modern quartets will include "Honolulu Moon" (by special request) and "A Russian Lullaby." The filting refrain of "Honolulu Moon" has proved to be most popular with listeners-in, and the manner in which it is performed by the Melody Four leaves nothing to be desired. Requests for a repetition of this song have been num-erous and insistent. This, however, will be the last performance of it by will be the last performance of it by the Melody Four, as it will now re-quire to be replaced by songs of a more recent date in accordance with the pol-icy of this quartet. In "A Russian Lullaby" a number of original ideas are introduced. As an introduction to the melody proper, excerpts from Tchai-kofski and Rachmaninoff's works will be heard giving a truly Russian atmos. be heard, giving a truly Russian atmosphere to the song. Mr. R. S. Allwright will be heard in a bracket of two Malinwill be heard in a bracket of two Maintson songs, "Eldorado" and "We Sway Along," the latter song being descriptive of a train journey. Mr. W. W. Marshall (basso) will sing "All at Sea," while Messrs. F. Bryant and C. A. Williams will be heard in "Sweet Early Violets" and "Farewell in the Desert" respectively. respectively.

# 3YA FEATURES

The items which Mr. James Laurenson will give on Friday evening will be "I've Found the Tobermory Treasure" (with apologies to Will Fyffe) and "How We Saved the Barge."

Songs, songs at the piano, steel guitar, and ukulele melodies, finte solos, mouth organ medleys, and elocutionary items will go to make the vandeville programme at 3YA on Saturday.

Miss Muriel Johns and Miss Edna Johnson, two talented and versatile vo-calists, will present medleys and popu-lar songs on Saturday evening.

A well-known name in the elocutionary world appears on Saturday evening's programme. This is Mr. Bracey Wilson, teacher of elocution in Christchurch. He has been engaged by 3YA, and on his first appearance before the microphone he will give two Scottish recitations. recitations.

Mr. Fred. C. Penfold will make his reappearance in radio on Saturday in three popular songs—"The Bandolero,"

"King Charles," and "My Old Shako."
Impressions of dreamy nights in
Honolulu will be wafted over the ether
on Saturday by Miss Elaine Moody's
Hawaiian String Trio.

Solid fare for music lovers will be provided in Saturday's concert by Miss Mabel Thomas and Mr. Dave McGill, who will sing excerpts from well-known operas. Flute solos will be played by Mr. W. Hay. Music of a different type,

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medleys of popular melodies, will be played on a mouth organ by Mr. A. El-

Standing out prominent in the weekly programmes of 3YA are the after-church studio concerts on Sundays. Next week end the entertainment is to be provided by Mr. A. G. Thompson's Dulcet Quar-Solos and concerted items will be sune and instrumental music will be supplied by Mr. Laurian Beck, Miss Nellie Elwood, and Miss

The musical comedy, "Tom Jones" (by Sir Edward German) will be the source of the vocal items to be rendered by the Melodious Four on Friday evening. This comedy, which is founded on the book of the same name, is full of entertaining songs with catchy tunes. The numbers comprise quartets, trios, duets, and solos. The opening chorus will be "The Barley

An instrumental trio consisting of Miss Mary Ward (violin), Miss Phyllis Porter ('cello), and Miss Aileen War-ren (piano), will play selections from Mendelssohn, Schubert, and Moskow-

A banjo artist, Mr. George Dunn, well known in Christchurch, but new to radio, will play popular airs.

# WHAT TUNING MEANS

A MAITER OF RESONANCE.

When we tune a radio set we are adjusting the circuits so that they will be in resonance with each other, and the transmitting station. A clear understanding of this phenomenon is necessary for the intelligent operation and constructions of a radio set.

Resonance is dependent upon inductance and capacity. These two elements are necessary to establish in a circuit wavelength or response to frequency. All circuits have resistance, which is present in the inductance and conductors and condensers. There are, therefore three quantities—inductance, resistance, and capacity—in a circuit.

# Amount of Current.

The amount of current that will flow in a circuit depends upon the strength of the voltage and the resistance of the circuit. These two forces would establish a condition that could be easily handled if the third quantity, frequency, was negligible.

Voltage is that energy which forces current through a circuit. Frequency is the number of times per second that force is applied. Current flow, there-fore, is controlled not only by the force, but also upon the number of times per second that force is applied.

If a constant voltage is applied to a circuit and the frequency is steadily increased from a low to a high frequency, it is found that the current value increases to a certain point and then decreases.

The frequency at which maximum current passes will be found to be the natural frequency or wavelength of the circuit At this point the frequency of the energy applied is the same as the natural wavelength or frequency of the circuit. This condition is known as resonance.

# Inductance and Capacity.

# Australian Programmes

## 2BL, SYDNEY

The following are the programmes for 2BL, Sydney (353 metres) from Wednesday, April 4, to Sunday April 9, inclusive:—

### WEDNESDAY, APRIL 4

WEDNESDAY, APRIL 4.

8 p.mh.: G.P.O. clock and chimes; programme arranged by Messrs. E. F. Wilks and Co., Ltd. 9: G.P.O. clock and chimes; Broadcasters' Instrumental Trio. 9.7: Mr. Leslie McCallum (baritone). 9.14: Mr. Harry Thomas: clocutionist). 9.21: Miss Ada Althouse (soprano). 9.28: Broadcasters' Instrumental Trio. 9.55: Mr. Leslie McCallum. 9.42. Mr. Harry Thomas. 9.49: Miss Ada Althouse. 9.56: Resume of following day's programme. 10: G.P.O. clock and chimes, 10.1: Weather report and forecast. by courtesy of Mr. C. J. Mares, Government meteorologist. 10.2: Broadcasters' all sports expert will talk on general sporting. 10.15: Romano's Restaurant Dance Orchestra, under the direction of Mr. Merv. Lyons, broadcast from Romano's; during intervals between dances "Sun" news will be broadcast. 1130: G.P.O. clock and chimes; National Anthem.

#### THURSDAY, APRIL 5.

8 p.m.: G.P.O. clock and chimes; Broadcasters' topical chorus. 8.3; Miss Anne Gurr (mezzo-soprano). 8.10: The Wurlitzer Organ, broadcast from the Arcadia Theatre, Chatswood; organist, Mr. N. Robins. 8.15: From the studio, Mr. Leo Packer (baritone). 8.22: Mr. Haagen Holenbergh (pianist). 6.32: Mr. Stanley R. Catlett (tenor). 8.39: The British Music Society's String Quartet. 8.49: Miss Mary Neal (mezzo-contraito). 8.56: The Silver Quartet. 9.3: Miss Anne Gurr. 9.10: Mr. Leo Packer. 9.27: Miss Mary Neal. 9.34: The British Music Society's String Quartet. 9.20: Mr. Leo Packer. 9.27: Miss Mary Neal. 9.34: The British Music Society's String Quartet. 9.41: Mr. Stanley R. Catlett. 9.48: Silver Quartet. 10.5: Resume of following day's programme; weather report and forecast, by courtesy of Mr. O. J. Mares, Government meteorologist. 10.10: The Wurlitzer organ, broadcast from the Arcadia Theatre, Chatswood. 10.25: The Wentworth Cafe Orchestra, under the direction of Mr. S. Simpson, broadcast from the ball-room of the Wentworth; during intervalls between dances "Sun" news will be broadcast. 11.30: G.P.O. clock and chimes; National Anthem.

### FRIDAY, APRIL 6.

8 p.m.: G.P.O. clock and chimes; concert broadcast from the Excelsior Theatre, Campsie. Artists-Miss Amy Ostinga (contralto), Mr. Alfred Wilmore (tener), Mr. Robert Turner (elocutionist), Miss Ina Thornton (soprano), Mr. Maynard Wilkinson (accompanist), the Canterbury District Band. 10.15; G.P.O. clock and chimes; National Anthem.

#### SATURDAY, APRIL 7.

B p.m.: G.P.O. clock and chimes; Broadcasters' topical chorus. £3: Heyes' Banjo
Band. 8.16: Miss Ethel Friend (contralto).
8.17: Miss O. L. Robertson (clocutionist).
8.24: Mr. Harry Ross (tenor). 6.38: Miss
Bertha Waters (soprano). 6.45: Broadcast
from the Stadium, 2 description of the
boxing contest, by Mr. Basil Kirke. 9.30:
From the studio, Heyes' Banjo Band.
9.37: Miss Ethel Friend. 9.44: Miss C. L.
Robertson. 9.51: Mr. Harry Ross. 9.56:
Broadcasters' Instrumental Trio. 10.5:
Miss Bertha Waters. 10.10: Resume of
following day's programme. 10.15: G.P.O.
clock and chimes; the Wentworth Cafe
Orchestra, under the direction of Mr. S.
Simpson, broadcast from the ballroom of
the Wentworth; during intervals between
dances "Sun" news will be broadcast.
11.30: G.P.O. clock and chimes; National
Anthem.

# SUNDAY, APRIL 8.

8.30 p.m.; The British Music Society's String Quartet. 8.40: Miss Millie Hughes (soprano). 8.47: Mr. Bryce Carter ('cellist). 8.54: Miss Nellie Ravens (contralto). 9.1: Miss Norah Alexander (elocutionist). 9.13: Mr. Glement Williams (buritone). 9.20: Miss Dulcie Blair (violinist). 9.27: Miss Millie Hughes. 9.34: The British Music Society's String Quartet. 9.44: Miss Nellie Ravens. 9.51: Mr. Bryce Carter. 9.58: Weather report and forecast, by courtesy of Mr. C. J. Mares, Government meteorologist. 10.3: Mr. Clement Q. Williams. 10.10: Miss Dulcie Blair. 10.17: National Anthem.

# 2FC, SYDNEY

The programmes for 2FC, Sydney (442 metres) from Wednesday, April 4, to Saturday, April 8, inclusive, are:-

# WEDNESDAY, APRIL 4.

WEDNESDAY, APRIL 4.

7.40 p.m.: Programme announcements.
7.45: A talkby Mr. C. J. Mares. "Weather Fallacies." 8: The Newtown Band, conducted by Mr. C. Bignall. 6.20: Ernest McKinlay, tenor (reappearance after an absence from Sydney for four years, during which time this artist appeared many times with the B.B.C., London), (a) "Ay, Ay, Ay" (Freire); (b) "O Vision Entrancing" (Thomas). 6.22: Lionel Lawson, violinist, "Preludio" (Bach). 8.34: The Newtown Band. 8.48: Gwladys Fimister, soprano; 8.56: The Newtown Band. 9.8: Late weather forecast. 9.9: A late booking. 9.18: The Newtown Band. 9.30: Ernest McKinlay, tenor, (a) "A Song Remembered" (Coates), (b) "Mother o' Mine" (Tours). 9.34: Lionel Lawson, violinist, "Gavotte" (Bach). 9.44: Gwladys Fimister, soprano. 9.59: The Newtown Band. 10: "Big Ben"; H. W. Varna and company will produce Shakespeare's "Taming of the Shrew" (a condensed version in two acts, arranged for broadcasting by H. W. Varna). 10: "The Taming of the Shrew" (ast—Baptista of Padua, William Hume; Katherine and Bianca (his daughters), Gwendolin Sherwood and Cleo Głover; Gremio and Hortensio (suitors), D. Robertson and Foster Dean; Biondello (Baptista's servant), D. A. Sharp; Petruchio (a gentleman of Verona), H. W. Varna; Grumio (his man), H. J. Selier; a widow, B. McAlister; ladies, gentlemen, and attendants, Part one: Iscene I, Public Place, Padua; scene 2, Room in Baptista Minola's House, Padua; scene 3, the same as scene 2—one week later. 16.40: Incidental music to part 2, 1042: Part two, "The Taming of the Shrew," produced by H. W. Varna and company. Scene 1, Petruchio's House, Verona; scene 2, On the road to Padua; scene 3, Eaptista's House, Padua. 10.58; To-morrow's programme and late news. 11: "Big Ben"; National Anthem; close down. down.

# THURSDAY, APRIL 5.

In addition to the resistance natural to the materials composing a circuit, inductance, and capacity cause what is known as reactance. At a certain frequency in circuit having inductance and capacity, this reactance becomes zero, the opposition of the inductance and capacity cease, and we have resonance.

But if the resistance in the circuit is high, it affords a constant opposition to the current flow. This condition results in broad tuning. If this resistance is high the tuning becomes broad and long distance reception impossible. Remove this resistance and the tuning becomes sharp and interference is reduced if not eliminated.

THURSDAY, APRIL 5.

7.40 p.m.: Programme announcements; grand opera night. 7.45: Alfred Hill, a talk on the Teachers' Operanist. Remove the resistance instead of possible. Remove this resistance in the circuit is high the tuning becomes broad and long distance reception impossible. Remove this resistance and the tuning becomes sharp and interference is reduced if not eliminated.

paniment). 9.36: Charles Armand, basso. Girl Like You" (Broones). When I me 9.44: The 2FC Studio Orchestra, conducted by Horace Keats. 9.55; Frank McEachern (basso) and Ernest Archer (tenor), duet, "The Battle Lye" (Bonheur). 10: "Big Ben"; from the Ambussadors, the Ambussadors, the Ambussadors, conducted by bassadors Dance Orchestra, conducted by 11.40; "God Save the King." paniment). 9.36: Charles Armand, basso. Girl Like You' (Broones), 9.44; The 2FC Studio Orchestra, conducted by Horace Keats. 9.55; Frank McEachern (basso) and Ernest Archer (tenor), duet, "The Battle Eve" (Bonneur). 10: "Big Ben"; from the Ambassadors the Ambassadors Unace Orchestra, conducted by Al. Hammet. 10.10; Frank Chapman, entertainer, from the studio, song (comic), "Tm Not All There" (Harry Carlton). 10.18: From the Ambassadors' Orchestra. 10.26: From the Ambassadors' Orchestra. 10.26: From the studio, Frank Chapman, entertainer, monologue, "The Last Bottle" (l'eter Cheney). 10.35: Late weather forceast. 10.34: From the Ambassadors' Orchestra 10.57; From the studio, to-morroy's programme and late news. 11: "Big Ben"; the Ambassadors' Dance Orchestra, in popular numbers, until 11.45 p.m. 11.45 National Anthem. Close down.

#### COOD FRIDAY, APRIL 6.

COOD FRIDAY, APRIL 6.

7 p.m.: "Big Ben" and announcements.
7.2: From St. Mark's, Church of England, Darling Point, Stainer's "Crucifixion," rendered by the choix. 8: "Big Ben"; from the Lyceum Hall, Pitt Street, Sydney (by arrangement with the Central Methodist Mission), a programme supplied by 2FC. The New South Wales Tramway Hand. 8.7: Sydney Calland, baritone, "The Floral Dance." 8.15: Joyce Foreman, elocutionist. 8.20: Rosina Madell, soprano, "The Lord is My Light" (Allitsen). 8.22: The New South Wales Tramway Band. 8.39: Peggy Dunb2r, contraito, (a) "Beyond the Dawn" (Sanderson), (b) "My Treasure" (Trevalsa). 6.47: Henri Penn, pianoforte solos, (a) "Prelude in C" (Bach), (b) "Aida Turca" (Mozart), (c) "Musical Box" (Ponishnoff, (d) "Humoreske" (Levine). 8.59: The Bennett North Vocal Quartet, (a) "Sleep, Gentle Lady" (Bishop), (b) "O. Peaceful Night" (German). 9.5: From the studio—During the interval at the Lyceum, news items will be given. 9.10: Fro mthe Lyceum Hall, Pitt Street, continuation of the concert by 2FC artists. The New South Wales Tramway Band, 9.32: Rosina Madell, soprano, "The Dream of Home" (Arditi). 9.37: Tenri Peun, pianoforte solos, (a) "Air and Tambourin" (Benjamin), (b) "Romanne" (Sapelnikoff), (c) "Tarantelle" (Nicode). 9.50: Peggy Dunbar, contraito, (a) "O. Night of Stars" (Thoubpson), (b) "Goming Home" (Willeby). 9.58: The Bennett North Vocal Quartet, (a) "in This Hour" (Pinsuti), (b) "When Hands Meet" (Pinsuti). 10.4: The New South Wales Tramway Band, selection. 10.15: National Anthem; close down. At the piano, Horace Keats.

#### SATURDAY, APRIL 7.

SATURDAY. APRIL 1.

7.30 p.m.: Programme announcements. 7.35: "A Street Scene in Sydney." 7.45: Introductory remarks and a description of the new apitol Theatre. 8: "Big Ben." Broadcast for the first time from the Capitol Theatre, the Capitol Symphony Orchestora, of 32 players, will play the prologue, Itoliowed by Mr. Scholl at the Wurlitzer organ. Items by Ted Henkel and his stage band of 20 players. A vecal quartet will sing several numbers in association with the stage prologue. 9.5: From the studio, late weather forecast; Virginia Bassetti, contraito. 9.13: From the Ambassadors, dance music by the Ambassadors of Orchestra, conducted by Al. Hammet. 9.20: Fraser Coss, baritone. 9.23: James Donnelly, tenor, college songs. 9.40: From the Ambassadors, dance music. 9.48: Virginia Bassetti, contraito. 9.55: Dance Orchestra (conductor, Al. Hammet). 9.48: Virginia Bassetti, contraito. 9.55: From the Ambassadors, dance music. 10.2: Fraser Coss, baritone (from the studio). 10.8: From the Ambassadors, the Ambassadors' Dance Orchestra. 10.18: From the studio, James Dounelly, tenor. 10.24: Douglas McKinnon, concertina numbers. 10.30: From the Ambassadors' Dance Orchestra. 10.18: From the studio, James Dounelly, tenor. 10.24: Douglas McKinnon, concertina numbers. 10.30: From the Ambassadors' Dance Orchestra. 10.35: From the Studio, late weather forecast. 10.35: The Ambassadors' Dance Orchestra. 10.57: From the studio, late weather forecast. 10.57: From the studio, late weather forecast. 10.57: From the studio, James Occhestra. 10.59: Pon the Studio of Dance Orchestra. 10.59: The Ambassadors' Dance Orchestra. 11.45: National Anthem; close down.

dance pusies. 19.35 Prom the studio. See whether forceast. 19.35 Prom the studio. The programme of the studio. The programme for the Ambassador's Dance Orchestra. 11.6: National Anthem; close Joyce.

3LO, MELBOURNE

3LO, MELBOURNE

The programme for 3LO, Melbourne (37) metres. from Wednesdry. April 4, to Saturday. April 8, are the following:—

WEDNESDAY, APRIL 4.

3 D.M.: Capitain Peters. "Rooks: Wise and programme announcements. The studios of the Nicholann Street, Methodise Choice of the Nicholann Street, Methodise Choice of Nicholann Street, Methodise Cho

"When I'm

#### THURSDAY, APRIL 5.

8 p.m. Major H. Shenton Cole, of the London and North-eastern Railway, will speak on "Tour and Trade Within the Expansion of Tour and Trade Within the Expansion of Tour and Trade Within the Expansion and Programme announcements. \$10.0 s. dance programme—\$46: The Vagabonds "Down Kenticky Way" (Hall), "Vesterday" (Harrison), "There Will Come a Time" (Garson), "There Will Come a Time" (Garson), "There Will Come a Time" (Garson), "The Beach et Waikili." ukulelo, "Ukulele Solo Medley." \$423. The Vagabonds, "Gulte Solo Medley." \$423. The Vagabonds, "Panny Tune" (Bryan), "My Idee of Heaven" (Johnson), "The Magic of Moonlight and Love" (Hayoss) \$8.37: A talk on the war memorial \$42; The Vagabonds, "Funny Tune" (Get a Yes Girl" (Corney), \$651; Kathleen Nicholis, soprano, "Over the Waters Blue" (Coningsby Clarke), \$651; Kathleen Nicholis, soprano, "Over the Waters Blue" (Coningsby Clarke), \$651; The Vagabonds, "Barbara" (Silver), "Dancing Tambourine" (Polla), "All By My Ownsome" (Kahn), 9.53 An Australia will give "aisibility, Run Rampant." 9.7: The Vagabonds, "Tour Laphonds, "Tour Laphonds, "Fightian Echoes" (Black), "An You Happy?" (Agar), "Who's Loving You Touight?" (Rosc), 9.16: The "Tramp' rudges in and will sing "London Bridge" (Treed), 9.28: Frank and Francis Luiz, sort, "Pan Mohala" duet, "Since Uku-Tune" (Agar), "Moonlit Waters' (Triend), 9.28: Frank and Francis Luiz, sort, "Pan Mohala" duet, "Since Uku-Tune" (Agar), "Cray Tune" (Agar), "Moonlit Waters' (Triend), 9.28: Frank and Francis Luiz, sort, "Pan Mohala" duet, "Since Uku-Tune, "Pan Mohala" duet,

# FRIDAY, APRIL 6.