

THE RADIO RECORD

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WELLINGTON, FRIDAY, OCTOBER 4, 1929.

(Price, 3d.)

String Octet Arranged for 3YA

To Play under the Baton of Mr. Harold Beck



As announced last week, an octet comprising some of the leading instrumentalists of Christchurch, has been formed by Mr. Harold Beck, and has been engaged to perform regularly at 3YA. The octet will make its first appearance next Wednesday, October 9.

Personnel of Orchestra.

The personnel of this new string octet will be:—

First violins: Miss I. Morris and Miss F. Millar.
Second violins: Mrs. Bills and Mr. H. Glaysher.
Viola: Mr. J. Mercer.
Cello: Mr. R. Bond.
Bass and euphonium: Mr. W. J. Barsby.
Harp: Mr. H. Glaysher.
Solo 'cellist and conductor: Mr. Harold Beck.

The Conductor.

Mr. Harold Beck, who formed and will conduct the octet, is an artist of whom his homeland should be proud. His recitals and performances as a 'cellist, while associated on tours with some of the world's best artists, have achieved for him a distinct national fame.

He showed wonderful ability as a child. While touring with his brother and child prodigies they won the most popular triumph wherever they went, and later both proceeded to Europe. He made appearance in England while still youth, critics predicting brilliant future for him. He became a member of St Nicholas's Church Choir, receiving choral training under Hayden Hare, Mus. Bac. Returning to New Zealand, he appeared for important musical societies, and proceeded on a successful tour in the North Island in 1919.

On the occasion of the visit of the New South Wales State Orchestra, M. Henri Verbrugghen immediately offered him a permanent engagement with this organisation. He was associated with the orchestra for two years, during which time he greatly extended his knowledge of symphonic, operatic, and chamber music, and in this connection played trios and quartets with artists and organisations such as the Henri Staell String Quartet, Alfred Hill, Lawrence Godfrey, Smith, Cyril Monk, and Frank Hutchens, besides playing for regular weekly chamber music classes at the Conservatorium. In addition, he played in the orchestras of the Royal Philharmonic Society, Apollo Club, and Sydney Choral Society. Besides appearing as soloist in Australia and New Zealand with the Verbrugghen Orchestra, he has toured with Harry Derth, Stella Power, William G. James, Kate Campion, and Stella Murray. Since settling in Christchurch, where he is well-known as a teacher, he has formed the Harold Beck String Quartet and a chamber orchestra of his own. He has also conducted performances at all the principal theatres, and is at present conductor of the Christchurch Savage Club Orchestra.

Miss Irene Morris, First Violin.

Miss Irene Morris, first violinist, is a distinguished New Zealand violinist who has won great praise from the highest musical critics. She commenced her musical studies at the early age of three, learning the piano-forte from her mother. A little later she began her violin study under the excellent guidance of Herr Max Hoppe, with whom she studied for several years, subsequently coming to Christchurch, where she had further tuition with the late Mr. F. M. Wallace, and other leading teachers. Miss Morris is a well-known concert artist and teacher, and has



Standing—Mrs. A. H. Bills, Mr. Harold Beck, Mr. J. A. Mercer, and Mr. W. J. Barsby. Seated—Mr. H. Glaysher, Miss Florence Miller, Miss Irene Morris, and Mr. R. Bond

Photo—Steffano Webb.

(Continued on page 2.)

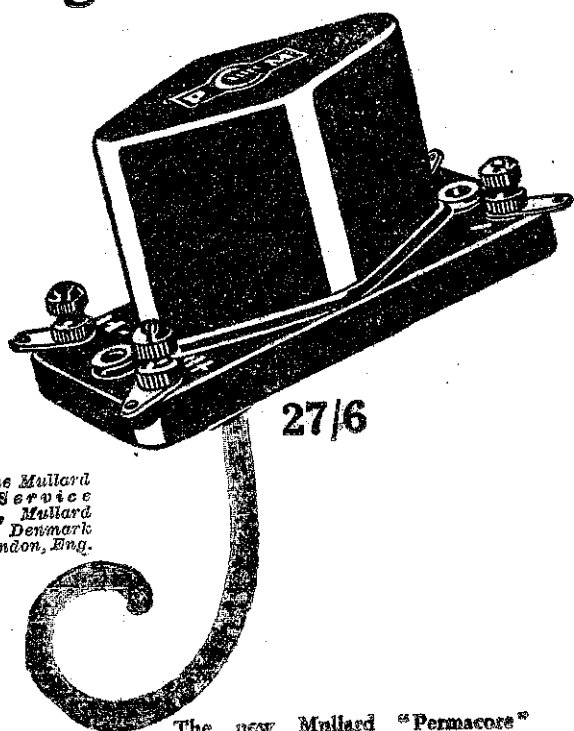
New American Station Temuka Competitions

LAST night (September 23), the new station at Los Angeles (KZGA), referred to in your issue of September 20, 1929, was picked up at a fraction below 1YA, Auckland. The programme consisted of organ music and was clearly heard on loudspeaker until Auckland came on the air at 8 p.m.—A.K. (Ruatapu).

Broadcast by 3YA

THE demonstration concert in connection with the Temuka competitions will be held on Friday, November 1. This concert will be broadcast by 3YA.

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New Octet for 3YA

(Concluded from front page.)

had a very wide orchestral experience, having been leader for a number of years at the Grand, Crystal Palace and Everybody's Theatres in Christchurch, and also of the professional orchestra, besides playing with the Christchurch Orchestral Society.

Miss Florence Millar, First Violin.

MISS MILLAR is well known in Christchurch and Dunedin as a talented and experienced musician. She has been leading violinist in the principal theatres. She studied under the well-known tenor, Signor Squarise, of Dunedin. From that city she came to Christchurch, and was for four years in the orchestra at Everybody's Theatre. She is well known to Mr. Beck, having been for some time associated with him, Miss Irene Morris, and Mr. Mercer in chamber music. Miss Millar is very versatile, being an accomplished artist in solo, obbligato, and orchestral work.

Mr. Joseph A. Mercer (Viola).

A SPLENDID acquisition to the octet will be Mr. Joseph A. Mercer (viola). Mr. Mercer is the proud possessor of a very fine instrument. He is a soloist of wide and varied experience, and has played in numerous theatre and symphony orchestras. He studied and played in Germany, France and England. For some years he was a member of Everybody's Theatre Orchestra (Christchurch), and also played in the Grand, Liberty and Crystal Palace Orchestras at times. Mr. Mercer is principal viola for the Christchurch Orchestral Society, and has made numerous appearances as a viola soloist, but pressure of private business on his time prevents him from appearing more often in public.

Mr. Russell Bond, 'Cellist.

AFTER a musical training as a pianist, Mr. Bond subsequently studied the violoncello under Mr. Harold Beck. He has occupied positions as 'cellist at Everybody's Theatre, Christchurch, and at the Octagon Theatre, Dunedin.

Mr. J. W. Barsby, Euphonium.

MR. BARSBY had an early musical training in bands under the well-known conductors, Mr. Seddall, V.D., and the late Mr. E. Derry. He thus

acquired a complete mastery of brass instruments, including the euphonium and trombone. He played the string bass for nine years under Mr. A. J. Bunz at the Crystal Palace Theatre until the orchestra was disbanded on the advent of the talkies. During the war period Mr. Barsby was for two years in the Featherston Camp band and concert party. He has been a member of the Christchurch Orchestral Society.

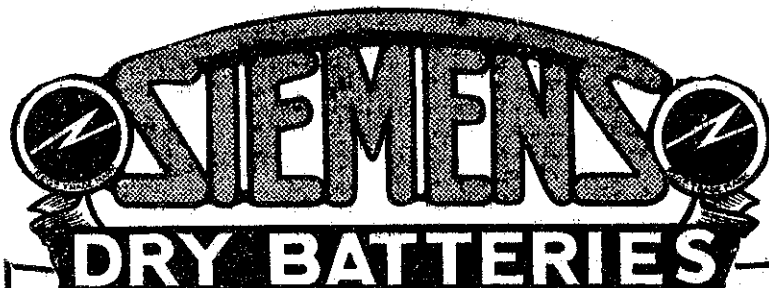
Mrs. A. H. Bills, Second Violin.

A PLAYER with much orchestral experience, Mrs. Bills studied under Mr. R. C. Zimmerman and has played for all the leading theatres in Christchurch, having filled the position of leader at the Queen's, Grand, Liberty and Crystal Palace. Before fulfilling professional engagements she played for the Orchestral Society and Musical Union under Mr. A. Bury and Dr. J. C. Bradshaw respectively.

Mr. H. G. Glaysheer, Harp.

MR. GLAYSHEER came to New Zealand with the laurels of a sergeant of the Royal Artillery Band upon him and with a long experience as a bandman behind him. At the age of 15 years he was appointed harpist to the R.A. Band, and during his long service of 27 years he has played at many important functions in England. One of these was the Queen Victoria Diamond Jubilee service at St. Paul's steps in the morning and at the Buckingham Palace banquet at night. Other occasions were Royal Academy banquets. He played at the Guildhall when the late Mr. Massey received the Freedom of the City of London.

During the war winters Mr. Glaysheer toured France and Belgium, playing for the troops, and also later for the Army of Occupation, concluding with a State Concert at Brussels for the King and Queen of Belgium and the signing of the Peace of Versailles. Mr. Glaysheer's family has an honourable soldiering record. The total service of father and four sons amounted to about 150 years. Mr. Glaysheer's father was late bandmaster of the R.A. Band at Sheerness, Kent, and organist of St. George's Garrison Church at Woolwich (where he met the great composer Gounod), afterwards at Dockyard Church, Sheerness.



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Radio Developments

THE next big move by the Australian Broadcasting Company will be right across the continent to Perth, where they commence operations at 6WF early in September. 5CL, Adelaide, will not come within their activities until early next year, but in the meantime 4QG, Brisbane, will be taken over. The last studio to come within their jurisdiction will be 7ZL, Hobart, but that will not be until the end of 1930.

A LARGE American concern have opened a station in Washington, built exclusively for the transmission of pictures to the public by radio. It is believed that this is the only station in existence at present built for broadcasting pictures only. The television audience is estimated at 20,000, but as the station intends to enlarge its power, this number is expected to increase far beyond this.

THE Soviet of Russia has concentrated on the development of radio in the country and though considerable progress has been made, the number of licensed listeners is not in proportion to a population of 150,000,000. In the Soviet there are now 326,285 radio sets of which over 44,000 are in the villages. The broadcasting is not only devoted to entertainment, but political propaganda plays a large part in the programme of all stations.

AMATEUR RADIO SOCIETY OF WELLINGTON.

The Monthly General Meeting of the Society will be held in the—

CAMBRIDGE TERRACE CONGREGATIONAL CHURCH HALL on TUESDAY NEXT.

MR. PRESTON BILLING

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News from Across the Tasman

Impending Broadcast Attractions

PROGRAMMES consisting entirely of old-time dance numbers are at present a highly popular feature in Australia. These programmes have met with such universal enthusiasm that there is little doubt that listeners regard them as, perhaps, the most enjoyable of all. Not only do old people prefer them for the memories they recall of bygone days, but the younger

THE A.B.C. should be very proud of their recent morning service innovation. A letter of gratitude received recently ran as follows:—"I wish to express my great appreciation of the beautiful little service you are so good to broadcast at 11.15 every morning from 2FC. I am an invalid, unable to attend our church services, so this call to prayer is to me a very great comfort, as I am sure it must be

Australian Broadcasting Company, hinted that a new "B" class station might shortly be established in Western Australia.

AUSTRALIA, despite her sparse population, compares very favourably with other great countries in regard to the number of listeners, and from the latest sources of information it is possible to ascertain what world ratios exist.

	Listeners per 1000 population.
Australia	47.90
Austria	53.31
Great Britain	59.48
Germany	43.92
Hungary	20.10
United States	68.10
New Zealand (approx.)	30

The license increase for the past two years in Australia has been a steady 25,000 per year, and it is predicted that in 1930 there will be 330,000 licenses in the Commonwealth.

AN item of especial interest to New Zealand listeners will be broadcast from 2FC by Miss Jean McArthur, who recently left New Zealand to study music. Before her departure she was listening-in one night to 2FC, and heard Alexander Sverjensky broadcasting. She at once decided that she would like to study music under him, and so wrote to him asking if he would accept her as a pupil. He agreed, and now, curiously enough, she is broadcasting from the very station responsible for her emigration.



1YA STUDIO TRIO—MISS INA BOSWORTH, MISS MOLLIE WRIGHT, and MR. ERIC WATERS (Violiniste, 'Cellist, and Pianist respectively). —S. P. Andrew, photo.

generation find in these catchy melodies a certain fascinating lilt which makes a strong appeal.

ARRANGEMENTS have been made in Australia for a series of educational lectures to be broadcast every Monday until December 2. It is hoped that this series will be so successful as to justify its continuance after Christmas. The lectures, which occupy half an hour, cover a wide range of subjects, including poetry, agricultural science, birds, plants, music, and books. These should prove very interesting, and New Zealand listeners should make an effort to hear them all.

to many similarly situated. I thank you, and pray for its continuance." Not often do broadcasting companies receive such a genuine and touching tribute, and this letter alone should amply compensate them for any trouble they may have taken in arranging for this period of daily worship.

THE fifth annual exhibition of the West Australian Wireless Institute, held at Perth early in September, proved an unparalleled success. It was arranged to coincide with the official reopening of 6WF, Perth, which now operates on a wavelength of 435 metres (690 kilocycles). Sir Benjamin Fuller, in speaking of the policy of the

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Current Events

MISS FLORENCE BENTLEY, who as a child had the distinction of playing the part of Wendy in the first production of "Peter Pan" in Australia, will sing from 2FC on October 3. She left the stage some years ago, and, as she was the possessor of a mezzo voice of excellent quality, took up singing as a serious study.

227 DURHAM STREET, near Bridge Remembrance.
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THE prairie town of Lethbridge, Canada, possesses an interesting novelty in the form of a "one-man" broadcasting station. This is situated in a hotel, and its operator successfully performs the varied duties of announcer, programme board, station director, chief engineer, and everything else. While spasmodically broadcasting news items, he is controlling transmission with one hand and utilising the other for answering the telephone. The main programme features are gramophone records, church services, news items, and advertisements, the latter being a source of enough revenue to run the station at a profit. While his manifold activities must, of necessity, be strenuous, he at least has the satisfaction of being the sole shareholder when the company (also himself) declares its dividend.

IN the past few years, the British Broadcasting Company's employee in charge of the production of "sound effects" has had a heavy task. He has had to concoct all sorts of sounds, and among those imitated were those of seagulls, earthquakes, floods, windmills, aeroplane crashes, trams, motorcars, etc., etc. He refuses to disclose his varied methods of imitation, as he believes it would destroy realism if listeners knew how the trick was done.

RADIO developments are taking place very actively in Russia, and as evidence of this, a party of Soviet engineers have recently arrived in New York to engage in a technical conference there. Also, a giant high-voltage rectifier has just been completed by an American company, and is now on its way to Russia. It gives a power output of 750 k.w., at a voltage of 15,000, and works on the mercury-vapour principle. Eighteen rectifying valves are used to supply current to the anode of the radio transmitter! In view of the recent Russo-Chinese upheavals, it is to be hoped that this super-power plant will not be adapted for the purpose of transmitting unfortunate Manchurians into the Great Beyond.

GERMANY'S monster liner, the Bremen, has an unusually fine equipment, and no less than nine operators to work it. The main transmitter has a 3 k.w. aerial energy and a band of 300-5000 metres (1000-60 kcs.). There is a high frequency transmitter of 700 watts, band 13-105 metres (23,000-2850 kcs.), and an I.C.W. set of 250 watts, band 175 metres (2350 kcs.) and 600-800 metres (500 to 375 kcs.). All these sets can be worked automatically at 150 words per minute. In addition, there is an emergency set operated from accumulators, and four of the lifeboats are fitted with small transmitting and receiving sets. The ship has eight receivers and a direction-finder, one receiver being permanently adjusted for the reception on a loudspeaker of SOS on 500 kcs. What a contrast to the first ship set with its Rhunkorf coil spark transmitter and coherer detector, all of which could be accommodated on a couple of card-tables!

FIVE million volts of man-made and man-controlled lightning were heard as part of a programme recently broadcast from WGY, Schenectady (U.S.A.). A lecture on artificial lightning and its use to mankind was punctuated by the discharge, which was



the nearest approach man has yet made in reproducing Nature's lightning. Prior to the discharge, a hissing sound could be heard from the corona as the voltage was being built up. The electrical energy is taken from the lightning circuit, stepped up to a very high voltage by a transformer, gradually stored in an artificial cloud condenser, and then discharged or spilled out in a few millionths of a second. By creating and studying these discharges, engineers are gathering valuable data for the protection of land-lines and station equipment.

A GIANT loudspeaker, which can be clearly heard within the amazing radius of four miles, has been specially designed and constructed by a Los Angeles firm for advertising purposes. The most interesting feature of the installation is the horn itself, which, unlike that of any other type of speaker, almost exactly duplicates the action of the human vocal mechanism. Throat, larynx, vocal cords, voice-box—all these are embodied, and each performs the same duties as those discharged by the human counterpart. The quality of reproduction is superlative, particularly when one considers the tremendous volume handled without distortion. If loudspeakers such as this one were in world-wide use, one could quite easily understand the recent high-handed action of the Vienna authorities in forbidding the use of loudspeakers after 10 p.m.

JAPANESE scientists were always greatly interested in wireless telephony and telegraphy, but it is little known that some of the earliest discoveries in this science originated in Japan. Their system was called "Teishinsho," and its chief feature was a special form of arc generation between two substances, one of which was a galena crystal. Furthermore, Japanese liners were among the first to carry wireless installations. On consideration of these facts, it is not surprising that radio broadcasting has taken the firm hold it undoubtedly has, upon the people of this distant land.

DENES VON MIHALY, a Hungarian, has recently exhibited his television receiver in England. The set is as big as a portable gramophone, and can be used with practically any radio receiver at all and will cost about £2 10s. The exhibition disclosed certain flaws in the apparatus, but for the material employed the reception was far better than was anticipated.

SHORTWAVE station CT3AG (Madeira) is closing down until the end of September, when it will reopen

with increased power. The Government has granted a large sum for the upkeep of the station, and better quality broadcasting can be anticipated.

A LARGE Telefunken station is now near completion on the Eknesburg Hill, about four miles east of Oslo. The maximum power in the aerial will be 60kw., and for a time Oslo will be the most powerful station in Europe. The aerial is suspended between two 160 feet masts, resting on special insulators fixed on large concrete blocks and suitably stayed.

THREE American mechanics have invented a new device for the broadcasting of programmes in hotels. Hitherto the broadcast has been received by a centralised system and then sent out to the various rooms by means of loudspeakers and a complicated network of wires. Now, however, the waves are picked up on a single aerial and then distributed by means of oscillators in the steel roof of the building. The receivers then operate by means of induction.

RADIO in Jamaica is in its infancy, and there are very few experts on the island. The cable office with its old spark transmitter is constantly interfering, and radio listeners have no protection against this even though they have to pay 10s. a year to the Government for license fees.

THE American Telegraph and Telephone Company has given a demonstration of television in colours. It is stated that the new process involves no sacrifice of detail, but that the picture is still limited to the size of a postage stamp.

GERMAN police recently arrested the ringleader of a band of racing swindlers. These men by means of a wireless receiver learned the results of the races before the bookmakers did, and then used to back the winning horses. In this way they amassed a huge sum of money.

THE first automatic wireless beacon in Canada was inaugurated on Seal Island, Nova Scotia, last week. This is the first of a chain of seventeen beacons to be constructed which are to stretch from the Gulf of St. Lawrence to the Green Lakes.

RECENT figures as to the number of licenses in England show the total of 2,760,878, an increase of 20,000 on the previous month's total. Besides these 14,830 licenses were distributed among blind listeners, and any blind person applying to the authorities can take out a free license.

CANADA has decided to embark on a national system of broadcasting following upon the report of a special commission which was dispatched to Britain and Europe to study wireless. To meet the demands of the big Dominion, the erection of several 50 kilowatt stations is recommended, and an increase of the existing license fee. The Canadian Radio Commission is now considering how the Dominion may prevent the radio service from drifting as the motion picture has done, into dependence upon the United States for its source of supply. Broadcasting from New York and Chicago is at present entertaining hundreds of thousands of Canadians, but the programmes thus picked up lack that national characteristic that should be outstanding.

MUCH indignation has been aroused in Vienna by the authorities there forbidding the use of loudspeakers after 10 p.m., on the grounds of disturbing the public peace. In hot weather, even superb music from the best of loudspeakers does not compensate people for gradual suffocation, so the order practically means that after ten one must depend on ones head phones. Broadcast listeners have retorted that the excessive hooting of motorists all the night through is a greater cause of distress and wakefulness, and they fully intend to circulate a petition protesting against this unfair proclamation.

THE world's biggest radio exhibition takes place this month in New York. At the big show in Madison Gardens will be displayed all of the "last minute" productions in broadcasting and commercial wireless.

Of Interest to Farmers

The Public Trust Office has just issued an interesting folder in connection with Advisory Trustees. It explains how farmers may take advantage of the opportunity to appoint one or more Advisory Trustees to co-operate with the Public Trustee in the administration of their estates. The various points are set out lucidly and briefly. Every farmer should make a point of obtaining one of these folders.

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The New Zealand Radio Record

(Incorporating the "Canterbury Radio Journal.")

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N.Z. RADIO PUBLISHING CO., LTD.,
P.O. Box 1032, WELLINGTON.

WELLINGTON, FRIDAY, OCTOBER 4, 1929.

NEW STATION AT 4YA.

ON October 16 the new plant of 4YA will go on the air for the first time. This plant will be of a strength comparable with Christchurch and Auckland, and will complete the establishment of fully-powered stations as originally planned. It is true that Dunedin has had to wait longer for her station than the other centres, but that was inevitable in the circumstances as they arose, more particularly the enlargement of plans in relation to 2YA.

THE wait has not been without advantage to Dunedin, in that the new station will take rank as the most efficient of all, from the point of view of layout and modernity of studio arrangements. It is situated in the upper floors of a modern newspaper building in Dunedin, on which its towers will be an outstanding landmark. To commemorate the opening, a special programme of Scottish character will be given. When it is mentioned that the initial number will consist of an item by sixteen pipers, the certainty will be felt that Scottish people throughout the Dominion will listen with eagerness to the opening of 4YA. The southern centre is certainly the stronghold of Scottish sentiment in this Dominion, and therefore the song and verse of that distinguished race will predominate in that evening's programme.

WITH the completion of 4YA, it is fitting to glance at the past and at the future. In spite of disabilities, steady progress has been made in equipment and service in recent years. That progress has been accompanied by a uniform increase in the number of listeners. The southern part of the Dominion has been the weakest in numerical support of radio. It is to be hoped that position will now change, and the leeway rapidly be made up. As readers know, we do not regard the broadcasting service of New Zealand as complete, even with the establishment of four main stations. Further progress has yet to be made. The range of the central stations is inadequate to give thoroughly efficient service in all provincial centres of population. That service can be adequately rendered only by the establishment of relay stations connected by land lines with the major stations. That will be the next logical step in the development of a fully satisfactory broadcasting service. Plans in this connection have been mooted, and await

determination in line with general policy. That decision lies only in the future, and is outside the hands of the present operating company.

THE higher-powered 4YA will be welcomed by all valve set owners throughout the Dominion. The southern centre possesses artists of high quality, and the added power will enable them to reach a wider audience. This constitutes a further asset to the Dominion service.

An Edgar Wallace Thriller

Another Three-Act Play at 2YA

EDGAR WALLACE has achieved far greater fame than any other writer of "thrillers," and his plays are just as famous as his books.

"The Man Who Changed His Name" is the title of Edgar Wallace's latest stage play, and it has been adapted for radio by Victor S. Lloyd, who will supervise its presentation from 2YA on Monday next, October 7. It would spoil the play for listeners to be told the plot, but perhaps it will be sufficient to say that it is as good as anything Edgar Wallace has previously written, and "armchair detectives" will have their work cut out to anticipate the surprising denouement.

Those who heard "The House of Disappearance" when it was presented from 2YA recently, will know what to expect, and there is no doubt that many listeners will eagerly look forward to hearing "The Man Who Changed His Name." Successful stage plays are very rarely suitable for broadcasting, and the work of adapting and preparing them for presentation by radio is fraught with difficulties. Particularly is this true of "thrillers," when only the listeners' sense of hearing can be appealed to. The skill with which "The Man Who Changed His Name" has been adapted for radio will, however, ensure for listeners an evening of thrilling enjoyment.

Putting the Clock Back Royal Male Choir

Concert at 3YA

4YA to Broadcast Concert

OLD-TIME concerts from 3YA are always extremely popular, but it appears as though the Christchurch station had excelled itself in its programme for Saturday, October 12. There will be three hours of old-time memories, with old-time songs and recitations, and old-time dance music.

The dance music will be a very interesting feature of the evening. There will be waltzes, schottisches, lancers, a mazurka, fascination polka, quadrilles, barn dance, alberts, and a military two-step. The instrumentalists will be the Williams' Dance Orchestra.

On the concert portion of the programme many songs that were once old favourites—and still are—appear. The vocalists will be Mrs. D. W. Stallard, Mr. L. C. Quane, and Mr. Bernard Renell. Popular old-time aims will be played as duets on English concertinas by Theo and Francis Gunther. There will be recitations by Mr. Hiram Dunford and Mr. Jock Lockhart will introduce much humour. He will revive old-time memories in song and story.

ON Monday evening, October 7, the Royal Dunedin Male Choir will be heard on the air for the first time, for the concert to be given in His Majesty's Theatre that evening is to be broadcast.

The Royal Male Choir, which sings under the baton of Dr. V. E. Galway, is a very popular Dunedin organisation, and the greatest of interest will be taken in this broadcast by listeners throughout New Zealand.

The choir items will be: "Roman Song of Triumph," "Lorelai," "For Home and Liberty," "Omnipotence," "Come, Gentle Night," "Phantom Host."

The vocal soloists for the evening will be Miss Rae Stubbs, Mr. J. E. R. Bunton (baritone), Mr. E. Paris (tenor). Violin solos will be played by Miss E. Wallace.

Among the songs to be sung during the evening will be the negro spiritual, "Swing Low, Sweet Chariot."

Relay from Waimate

1200 Boys Visit 3YA

DURING the recent school vacation in Christchurch 1200 boys, under the aegis of the Boys' Work Committee of the Y.M.C.A., visited 3YA and inspected the studios and transmitting plant. The boys took a very intelligent interest in everything that was explained to them.

THE people of Waimate, who are celebrating the jubilee of the town shortly, are entering with the greatest enthusiasm into the proposal that one of the week's celebrations, the concert on the evening of Friday, October 18, should be broadcast. The Mayor, Mr. Geo. Dash, reports that an entertainment, which will be a credit to all concerned, is being arranged. Excellent talent, both vocal and instrumental, will be heard.

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WELLINGTON — PALMERSTON
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The New 4YA**Silent Days Precede
Change-over**

AS the official opening of the new studio takes place on Wednesday, October 16, it will be necessary to observe a few silent days in order to effect the necessary change from the old premises to the new.

The erection of the new transmitting plant will be completed and the necessary adjustments and tests will be carried out before the new station officially goes on the air on Wednesday evening.

From Saturday evening, October 12, at 11 o'clock, therefore, until 8 p.m. on Wednesday, 4YA will be silent.

The official opening of the new 4YA will be an eventful day for broadcasting in Otago, and, in fact, in New Zealand, for the new Dunedin station will complete the chain of the four YA stations. A programme befitting the occasion has been arranged. It will open, very appropriately, with a bagpipe selection from sixteen Dunedin Highlanders, and the programme right through will be decidedly Scottish in character.

The official opening ceremony will be performed by the Hon. J. B. Donald, Postmaster-General, who, if he cannot be present in person, will speak on relay from Wellington.

Hospital Radio**A Novel Broadcast**

A UNIQUE broadcast was performed by 2YA, Wellington, on September 25, when Mr. H. G. Dickie, M.P. for Patea, and the Hon. A. J. Stallworthy, Minister of Health, made brief addresses from the studio in connection with the formal operation of the broadcast-receiving installation recently donated to the Hawera Public Hospital. The broadcast was clearly received.

The installation comprises 85 pillow phones, which enable patients to hear clearly from the receiving units inside their pillows, two loudspeakers in the children's ward, and two more in the nurses' home. The set is a six-valve all-electric one, with an additional power amplifier and a gramophone pick-up installation.

Another interesting ceremony was performed at the Old People's Home at Park Island, Hawke's Bay, on September 22, when the oldest inmate of the home, a Crimean War veteran, tuned in to 2YA on a latest model screen-grid receiver. Those present then listened to a concert being transmitted from New York for the especial benefit of the Byrd Expedition, and which was being rebroadcast from Wellington.

The idea of installing radio in institutions of this description is an excellent one, and the inmates, from all reports, seem highly appreciative of any efforts made in this direction.

Brilliant Orchestra**Strong Group for 2YA**

THE general manager of the Broadcasting Company, following on the statement last week concerning the formation of a new combination in Christchurch, now announces that an orchestra formed by Signor A. P. Truda, the well-known Wellington musician and conductor, has been engaged to appear at 2YA twice weekly.

The orchestra will be heard on Monday and Friday evenings, the first performance being on Monday, October 14.

String Quartet**New Combination for 3YA**

A NEW string quartet is to make its first appearance at 3YA on Thursday, October 10. It will consist of: Mr. Arthur Gordon, first violin. Miss Gladys Vincent, second violin. Signor Oddone Savini, viola. Mr. Francis Bate, 'cello.

This will be an exceptionally good combination. Both Miss Vincent and Mr. Bate have had Home training and played at the Crystal Palace, London. Mr. Arthur Gordon, a well-known Christchurch teacher, has been leader and conductor of a local theatre orchestra. Signor Oddone Savini is a conductor of the Christchurch Orchestral Society, and is, as is well known, a brilliant player.

A Mighty Concern**£53,000,000 Cable and
Radio Merger**

A NEW page in the history of Empire communications started Monday last when the all-British cable and radio systems were operated by the new Imperial International Communications, Ltd., which has a capital of £53,000,000.

Sir Basil Blackett, the chairman, on the eve of the mighty concern's debut, told the "Evening News" that the physical transfer marks a further big step in the rationalisation of Imperial communications.

"In the interests of an improved service we are very conscious of our great responsibilities as an Imperial public utility company working with the Governments of the Empire and supervised by an advisory committee representing all the Dominions," said Sir Basil Blackett. "We are servants of the public and of the Empire and will spare no pains in endeavouring to serve the interests of our customers and forge even closer invisible links by wire and wireless to keep the several parts of the Empire in intimate communication."

"Elgar" Evening**1YA Attraction**

A CONCERT devoted to the works of Sir Edward Elgar has been arranged by 1YA for Tuesday, October 15. In the opinion of many judges, Sir Edward Elgar stands as the foremost of living composers. He is now 72 years of age. He was given his knighthood in 1904, and the Order of Merit in 1911.

A Popular "Uncle"**Sunday School Anniversary**

A UNIQUE opportunity for both young and old to see "Uncle George," the well-known 2YA "uncle," was afforded them on Sunday, September 29, at the Northland Methodist Sunday School. The occasion was that of the 25th anniversary of that institution, and "Uncle George's" speech during the afternoon service was greatly appreciated, especially by the many radio listeners present.

The children's services every Sunday evening, which Uncle George conducts, are eagerly looked forward to, not only by the children themselves, but by many adults who enjoy them quite as much.

Relay from Cambridge

ARRANGEMENTS are being made for 1YA to carry out a relay from Cambridge on Friday, October 11. On that evening the demonstration concert in connection with the local competitions is to be held. Much excellent talent is always attracted to the Cambridge competitions, so that a musical treat can be anticipated in this broadcast of the final concert, to which the winners in the various classes will contribute.

Announcing at 1YA.

DURING the absence of Mr. (ulford Bell, who has been judging the elocation at the Dunedin competitions, Mr. T. L. Cronin has been announcing at the 1YA microphone.

Maori Entertainment**2YB Proposes Relay from
Parihaka**

FOLLOWING on the success attending the broadcast of a concert from the North Egmont Mountain House, the enterprising officials of 2YB are now planning to relay a Maori entertainment from Parihaka, a well-known Maori pah on the coastal uplands on the western side of Mt. Egmont. The celebrations intended are to mark the anniversary of the famous march to Parihaka.

If arrangements can be made, this will be a very interesting relay. The General Manager of the Broadcasting Company has offered all the assistance possible, technical and otherwise, to ensure the success of the occasion.

License Fees**N.Z.'s. Happy Position**

IN different countries license fees vary inversely with the number of licensed listeners in the country concerned. Statistics comparing New Zealand with Scandinavia in this respect are as follow:—

Sweden: Listeners licensed, 400,000; license fee, 10s.

Denmark: Listeners licensed, 230,000; license fee, 12s.

Norway: Listeners licensed, 65,985; license fee, 22s. 6d.

New Zealand: Listeners licensed, 45,823; license fee, 30s.

New Zealand listeners should take notice of this fact and should endeavour to convert as many non-enthusiasts as possible, thus reducing the amount of their own annual license fee.

**Relay from Palmerston
North**

ON the evening of Sunday, October 30, 2YA will relay an after-church concert from Palmerston North. This concert, which is being organised by Messrs. F. Jackson and J. A. Nash, M.P., is in aid of funds to provide work for the unemployed.

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WELLINGTON

Radio Plays

A New Feature

DESPITE the tremendous difficulties that beset the paths of both producer and actors, the radio play is one of the most entertaining and attractive items of present-day wireless programmes.

It has for its prototype the initial efforts of the Middle Ages to produce a "story of life." Performances took place in broad daylight in an open-air theatre, and the audiences were called upon to use their imaginative powers to the fullest extent, for the only means to create atmosphere in those days were by the use of placards and descriptive prologues.

Likewise with the wireless play of to-day. When one considers the numerous and overwhelming advantages possessed by a theatre play or musical comedy over the radio play, one is astounded at the fascinating appeal that the latter makes to the listener. Setting, atmosphere, personality of actors and actresses, facial expression, all these are totally lacking "over the air," and yet, with the sole aid of voice and voice inflection, a few sound effects, and perhaps a background of music, the broadcast play is certainly a great success. Although critics have claimed that the radio play is a poor substitute for the theatre, the two are really not comparable, as the former has now definitely produced its own art form, and is in effect a separate entity.

The most important qualities that constitute a good radio play are three in number, i.e., witty or forceful dialogue, strong and well-defined characterisations, and what is known as good "voice personality." Of these, dialogue plays the most important part, as, unlike the theatre, no other compensations are present to conceal bad writing.

All the peculiar conditions of studio plays are being gradually overcome and a wider and more ambitious prospect presents itself to the radio dramatist. Radio plays are now not only adapted from stage plays, but very frequently are written specially for broadcasting, and the new avenues opened up in the realms of drama by the development of this fascinating departure should engage the attentions of all playwrights.

Among those plays recently presented by New Zealand stations, "Galapagos," as one of the finest entertainments ever broadcast, was a complete success. It is based on a story similar to Coleridge's "Ancient Mariner," and was so popular that numerous requests were received for its repetition. These were acceded to, and ultimately all the YA stations presented it. A more frequent presentation of similar radio plays would undoubtedly be universally appreciated.

Have you procured your copy of

"N.Z. Radio Listener's Guide?"

Dealers and Booksellers 2/6; Posted 2/9—P.O. Box 1032, Wellington.

Available Everywhere.



MRS. J. PARRY,
mezzo-soprano, popular at 1YA.
—S. P. Andrew, photo.



MRS. NELLIE WHITWORTH,
a mezzo-contralto soloist from 3YA.
—Steffano Webb, photo.



An interesting photograph taken at Eden Park on the occasion of the Hockey Test Match for the Manning Cup between Australia and New Zealand. On the left is Mr. W. J. Meredith, the regular football announcer at 1YA, and on the right is Mr. Arthur Playle, Chairman of the Auckland Hockey Association, who described the hockey match on that date.



MR. CLARENCE PAINE,
Elocutionist, formerly a 4YA performer, but who now appears at 1YA.
—S. P. Andrew, photo.



MR. ERIC MAXWELL,
A young and brilliant solo pianist, who has delighted Auckland listeners.
—S. P. Andrew, photo.

An Appeal from Australia

A REQUEST has been read from New South Wales by 2YA for a supply of a new species of potatoe which was described in a recent talk by Mr. Nicholls, of the Hutt Valley Horticultural Society. The Australian writer adds: "I must congratulate you on the good programmes we get regularly from Wellington."

To Increase Production

Impressive Facts About Topdressing

ONE of the most valuable of the lectures given from 3YA for primary producers was that on "The Case for Topdressing in Canterbury," by Mr. A. Y. Montgomery, broadcast last week. This lecture went right to the heart of the subject, and emphatically proved to all primary producers the desirability, in their own and the national interest, of adequately topdressing their pasture land, to replace the mineral content removed by steady grazing. Mr. Montgomery quoted these figures, which should remain fixed in the memory of every farmer as invaluable proof of the need for adequate pasture treatment. There has been removed from the pasture lands of New Zealand in the last 20 years, in the aggregates of beef, lamb, and sheep exported from the country, phosphate equal to 536,440 tons of 44/46 per cent. superphosphate. In recent years the rate of topdressing has steadily increased, and now replacement is taking the place to some extent of the original fertility so removed. Last year, however, 211,000 tons of superphosphate only were used, so that much remains yet to be done, particularly in relation to sheep country, as the bulk of the phosphate now used is applied to dairy lands. In Canterbury only 3710 tons of superphosphate were used in that season. Although two and a quarter million acres are now topdressed annually in New Zealand, this represents only 13 per cent. of the sown grasslands of the Dominion. Much remains, therefore, to be done to increase the carrying capacity of the country.

Every farmer who consistently applies topdressing finds that it pays, and pays handsomely. The reason is that it encourages adequate growth of the grass and clover, improves the feeding quality of pasture, and so maintains stock in health and vigour. The recommendations made by Mr. Montgomery for detailed use of farmers in Canterbury (and with adaptations elsewhere), are as follows:—

"One ton of lime every four years, and 2-3 cwt. of super per year, applied in April-May, are suitable quantities to try out.

One cwt. sulphate of ammonia applied in July of this year has given splendid August-September feeding on good rye pastures.

Nitrogenous topdressing is particularly valuable in extending the grazing period, and in giving early spring feed.

Our Mail Bag

Will correspondents please practice brevity, as heavy demands are now made on space. All letters must be signed and address given as proof of genuineness; noms de plume for publication are permitted. Address correspondence Editor, "Radio Record," P.O. Box 1032, Wellington.

ANSWERS TO CORRESPONDENTS.

"Blind Listener."—In response to your request Mr. Marshall will sing the "Wolf" from station 2YA on November 2.

A Good Hefty Growl.

HERE is another good hefty growl from Invercargill. First, the children's hour. The atmosphere achieved is excellent and the work being done magnificent, but why force "Uncles" and "Aunts" with no idea of singing in tune and no voices to sing with? The result of their efforts to keep in tune is painful to a musical ear, and I am sure the remarks passed by listeners would be highly embarrassing to the person concerned.

The Radio Broadcasting Company is trying to make people believe that they are a benevolent institution, but one station relaying another is merely a cheap way of getting a programme. None want to listen to the same programme from two or three different stations. They tried hard to make people believe that the establishment of B class stations would be against their interests and they succeeded. They persist in saying there is no monopoly in New Zealand. There must be, otherwise the B class stations would have been licensed. We are still awaiting the Postmaster-General's statement. If no part of the listeners' fees is to be given to the B stations, how can their establishment be inimical to the listeners' interests? It simply means that a supplementary service is being provided for nothing. For if they are to be a financial success they must provide good programmes for listeners, in order to advertise their sponsor's wares. It is certain that the form of advertising will be no more than simply stating that the programme is being supplied by So-and-so Co. Listeners will not be forced to listen to them. The Radio Broadcasting Co. use this form of advertising themselves.

Why do not the Broadcasting Company publish a balance-sheet? They have been asked for one ever since their inception, but have remained dumb on the question.

I wish to support "Disgusted" in his contentions. The Broadcasting Co. has begun dinner music from three stations. What do we find? "Tacet" coming on at the same time from all stations. The lack of initiative is astounding. It is operating the stations as separate units, not as a whole, system, in accordance with the best prac-

tice in other parts of the world. Why cannot the sessions be so arranged as to provide continuous music from, say, 5 o'clock till 7.30? The children's hour and news session can be worked in so as not to clash with each one from the different stations. The company has the opportunity of providing variety, but has not the foresight to put it into practice. If a person wants to listen to lectures all the time, well and good. He can do so. Why doesn't the company put on musical items until 8 o'clock? From 7 to 8 is the emptiest hour of the evening. If the company doesn't provide service how can it expect to get more listeners?

The use of your paper as a safety valve is better than bursting the valves in my set in disgust.—Shielded Grid (Invercargill.)

A Suggestion for News.

SOME time ago the R.B.C. stated that linking Invercargill with 4YA would be of considerable advantage to Southland. As a Southland farmer I offer a suggestion.

As Wallacetown stock sale reports are those upon which Southland depends for valuation, would the R.B.C. arrange to have these broadcast from 4YA?

I consider that radio is of greater service to farmers than to any other section of the community, and I am eagerly looking forward to hearing the new 4YA station.—W. F. Harrison (Tuatapere)

Come North, Young Man!

I HAVE just been reading a letter by "Disgusted" (Invercargill) in your Mailbag Page, 13/9/29, and can assure him he's not the only one that's disgusted. I'm disgusted to think there are people like him who are never satisfied. Evidently he's growling from Monday until Sunday at all the YA programmes, and thinks the Australian stations are just the thing. What's the matter with him selling his set and buying a steamer ticket to Australia and stopping there? Failing that, come North, old man, and get a bit of sunshine, then you'll have a brighter outlook on life. In a way, he has my sympathy. I lived near Invercargill myself years ago. I'd like to ask "Disgusted": (1) Could he get a better programme than the recent Maori pageant at any of the Australian stations? (2) Could he get a better concert programme than the recent Wanganui Band concert? (3) What's wrong with the football, wrestling, and boxing descriptions from the YA stations? You're hard to please, "Disgusted." What a contrast his let-

ter is to "Satisfied Listeners" (Dunedin), on the same page. Well done, "Satisfied Listeners," I endorse every word of your letter.

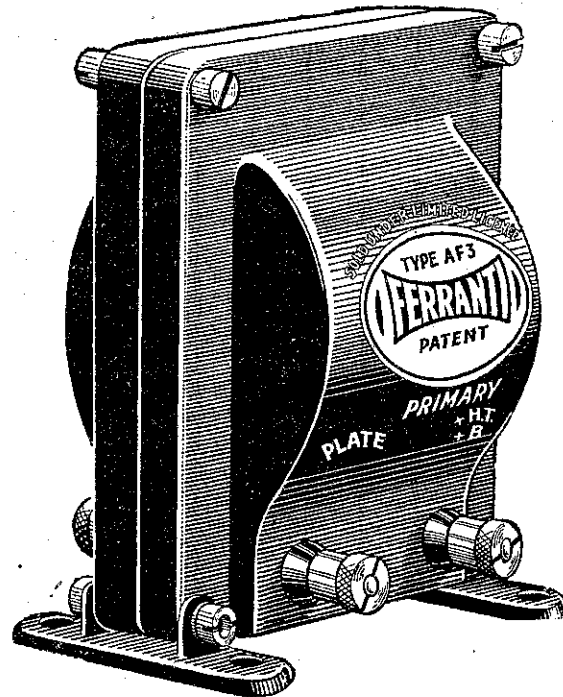
The passage I take the greatest exception to in "Disgusted's" letter is his question (4) When will the silent day become an active day? In the first place, he says "he wouldn't advise his friends to buy a radio set to listen in to YA stations," and yet he growls because they have a silent day! Secondly, does he think the station staffs should work seven days a week without a spell? I bet he likes his day off. Personally, Mr. Editor, I'm one of the "backblocks satisfied," and if by any chance one of the YA stations is not to my liking I just repeat Mr. Drummond's goo-ood night and go to another YA. Once again, I would ad-

vise "Disgusted" to come North into the sunshine, and can assure him that when he goes home after a day's work and tunes in 2YA he won't hanker after Australian stations.—I am, etc., F. Carter (Bay of Islands).

More Subdued Accompaniment Desired.

YES, we are enjoying radio, and we should not like to be without it, but would enjoy it better if, when an artist is singing, the pianist played much more softly. Why was wavelength altered to kilocycles? My machine reads wavelength. Would it not be better if you stated both wavelength and kilocycles?—I am, etc., W. Coker (Napier).

[Station allotments are made in kilocycles, and as most of the newer models



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have dials graduated in this, we make a practice of giving both. Wave-length should not be confused with dial calibration in degrees.—Ed.]

A Country Fireside Scene.

I must express my appreciation of Station 1YA in broadcasting the wrestling matches from the Town Hall on their silent night. Their action in going on the air shows that they are making an honest endeavour to give the listener his money's worth. Just a little suggestion. Has the station ever thought of broadcasting a typical farm fireside scene? There we would have Dad and Mum and the children all gathered round the fireside, talk could be introduced between musical items and good effects could be worked into the setting. The latest gramophone records could be worked off by dad telling little Joe to "give us a tune on the gramophone." There would be no difficulty in arranging a sufficiently large programme as there could be no limit (in reason) to the size of dad and mum's family. Hoping the suggestion is worth following up.—W. K. McLean (Glen Massey).

Objections to Tacet.

AS to tacet, I quite agree with Mr. B. M. Friis and "Dreamer." Why did the Broadcasting Co. adopt this idea. One does never hear it in Australian dinner music. We country listeners cannot afford to listen to the carrier wave of 2YA while the set is lapping up the good old juice. If the set is turned off every time it is tacet it gives one indigestion jumping up and switching off.

All country folk eat heartily and enjoy meals too much for such exercise. We hope to see it called off, and the music run on without a stop. Also hearing the station call gives one a fright or else some "spook" calling out to one.—Country Listener (Okato).

Big Ben

Time of Striking Controversy

IN the September 27 issue of the "Radio Record," there appears a paragraph stating that advice has been received by Mr. T. P. Sewell, of Christchurch, from the authorities at 5SW to the effect that "Big Ben" is only broadcast at midnight. The same statement was published in the Christchurch "Star" on Thursday, September 12, and a controversy was carried on in this paper for some days in connection therewith. However, to clear up the matter, I arranged for the following reply-paid cablegram to be sent to the British Broadcasting Corporation, namely: "Does 5SW, Chelmsford, ever radiate Big Ben at 7 p.m.?" A reply was received on September 17 as follows: "London, September 16: Big Ben, yes, Monday to Friday inclusive,

I certainly agree with Mr. B. W. Friis and "Dreamer" that the tacet in the dinner-music is objectionable. All my friends are of the same opinion. I would suggest that it be done away with for a month, at say, 2YA, as a trial. If its omission proved popular it should be cut out permanently at all stations.

I must express my appreciation of the description of the wrestling contest on Monday night by 2YA's announcer. So vividly did he describe the different holds and positions that one obtained a perfect conception of the contest seated at the fireside.—"Regular Listener" (Upper Hutt).

(Continued on page 12.)

programme permitting. British Broadcasting.—L. P. Simpson, Christchurch).

IN this week's "Record," in referring to the letter I received from the B.B.C. in answer to my question as to when "Big Ben" was broadcast, the word "only" has been put in which should not be. This letter caused some discussion in Christchurch. So much so that one listener sent a reply-paid cable to the B.B.C. as follows "Is Big Ben 'ever' broadcast at 7 p.m." Note the word "ever." The reply was: "Yes, Mondays to Fridays 'if' programmes permit." My letter apparently was contradicted by the cable, but, when the matter is properly summed up, in my opinion it amounts to this: "Big Ben" is scheduled and can be depended on to be heard by anyone able to tune in 5SW at our time equivalent to midnight in England, and it is only problematical when "Big Ben" is broadcast at other hours as the "if programmes permit" signifies, so that both my letter and also the cable are quite correct. I am waiting further replies from the B.B.C. on the subject. I also enclose a cutting from "Popular Wireless" which shows that what my letter stated is quite correct.—T. P. Sewell (Christchurch).

"While it is true that in England the programmes and times of transmission of the principal broadcasting stations are given by the B.B.C. in its publication, 'World Radio,' according to Greenwich Mean Time or Summer Time, persons in other parts of the world have to make their own calculations. Here, at Constantinople, our local time is about two hours ahead of Greenwich, so that midday in England is 2 p.m. with us, and if we wish to hear Big Ben striking midnight (as we sometimes do to remind us of home), we have to sit up until 2 a.m. But it is well worth the trouble to hear his cheerful voice."

Testing Head-phones

Some Useful Hints

THE usual method of testing a pair of telephones is by placing the two terminal tags on two different battery terminals, and listening for the loud double click. This is not the best way, for telephones are so extremely delicate and sensitive instruments that to place them directly across a battery in this way is like cracking a nut with a sledge hammer. A better test for 'phones, and one that does not need a battery, is the following:—

Place the earpieces over the ears in the ordinary manner, and then take one of the tags firmly between the lips. In one hand take the other tag, and in the other hand a key, nail, or a similar piece of metal, and rub this gently on the second tag. If the telephones are in good order, noises corresponding with this rubbing will be heard through the earpieces.

The noises, of course, will not be very loud, for in the absence of a battery, a kind of human electricity is being utilised. So sensitive, however, are a good pair of telephones that if they are O.K. the noises will be absolutely distinct and unmistakable. The great advantage of this method is that not only is there no risk of damage to the windings, but by virtue of the small current used, minor faults will be discovered which would be unnoticeable if higher power were used.

'Phones should be kept in a dry place, with leads neatly coiled, and if owing to constant use these latter become frayed, bind the affected place with silk or cotton to stiffen and protect it. On no account throw the telephones on to a table, or drop them on the floor, as a sudden sharp shock of this kind is sufficient to impair the permanent magnet.

Finally, it is a good plan to remember that after the 'phones have been worn for an hour or so they should be wiped carefully with a soft duster to remove perspiration from the diaphragms, which would otherwise rust.

WANTED AND FOR SALE.

for column of casual advertisements see page 32.



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'Phone 12-569.

Budding Aviators

THE inauguration of any real live juvenile movement is always to be commended, and certainly the recent formation of a Boys' Aero Club in Australia falls under this category. This club, which at present has an active membership of over a thousand, is conducted chiefly by the aid of lectures delivered from 2BL, Sydney.

The novice members are called Kiwis, and they occupy their spare time by making models and studying aviation. As they become increasingly proficient, they are graduated into higher classes, and are then known as Cadets. To progress in this way it is necessary for them to build working models of kites, balloons, aeroplanes, and gliders, all of which must fly a specified distance within a given time.

It has been found that the application the schoolboy will not take to his mathematics, he lavishes on his hobby, and boys generally recognised as dull in school, will work out definite equations when associated with aeronautics.

Every possible encouragement is given to this club by the Australian Broadcasting Company, and, after all, wireless and aviation are so closely connected that this assistance seems only fitting. A New Zealand Club, conducted along similar lines, would no doubt prove as great a success, especially in view of the developments towards aviation at present taking place in this country.



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AUCKLAND,



Identification Wanted

COULD any readers of the "Radio Record" identify, through your columns, an Australian broadcast station that was broadcasting speeches of a political nature, from some large hall, between 10.30 and 11 p.m. on Thursday evening, September 19?—Listener (Petone).

I WOULD like a little information concerning a shortwave station operating on an approximate wavelength of 50 metres (6000 kilocycles). This station has been heard many times lately, and generally opens up about 10.15 p.m. Although music comes through O.K., speech is distorted and I always fail to get the call. I am quite satisfied it is neither KZRM nor 8XAL.—A. P. Morrison (Brooklyn).

CAN any short wave enthusiast give me particulars re station heard on approximately 21 metres, giving call of K10 or J10? Station announcer kept on calling this is station K10 calling, Riverhead, Long Island. Signals were about good speaker strength but were, unfortunately, marred by static. The time heard was five minutes before midnight on Wednesday, September 25.—W. K. McLean (Glen Massey).

Stations Identified

THE station E. H. White heard below 2FC is not WOW, but WLW, Cincinnati, Ohio, and last week I heard him at full loudspeaker strength.—Kauspanka (Hawke's Bay).

IN the last week's DX Club news four correspondents ask for the identity of an American station operating on September 14 on approximately 215 metres (1395 kilocycles). I located this station on Saturday, September 14, at 7.5 p.m. and quite a number of musical items were enjoyed. At 7.40 p.m. the musical number ("The Wedding of the Painted Doll") was heard, and at 7.45 p.m. the announcer gave the call-sign WCKY. It is situated at Harrison, Ohio, U.S.A. Reports on transmission were asked for. I did not hear any more of him after 8 p.m. N.Z. time. Considering 2YA's first harmonic is on 208 metres (1440 kilocycles), and WCKY is operating below that, I should say his wavelength was 206 metres (1456 kilocycles), three metres above his listed wavelength of 203 metres (1480 kilocycles).

"Sonora," Lyall Bay, Wellington, asks if anyone possessing a set similar to his own can receive American broadcasting on it. I have a friend who, under similar circumstances, can receive a few American stations. The best hours for American reception are between 6.30 p.m. and 8.30 p.m. As regards the 12.30 a.m. time, shortwave work is about the only thing going. The trio on the 80 metre (3750 kilocycles) band, namely, 2BE, Hastings, 2AX, Palmerston North, and 2AW, Wellington, are transmitting some excellent telephony, both on music and speech. On Monday, September 23, after 2YA closed down, 2AX, Palmerston, was on test and his strength here was wonderful, considering he was only using 31 watts. His Wednesday night tests are always listened for, and his modulation is good on music.

THE D.X. CLUB

Views and News.

2BE, Hastings, can always be relied on to deliver perfect modulation, both on speech and music. 2AW, Wellington, also makes the diaphragm rattle a little, but he can be toned down to where the percentage of modulation is perfect, and in the near future we hope to hear a little music from him.—A. P. Morrison (Brooklyn).

I NOTICE in the "DX" section where certain listeners have evidently been straining their sets in endeavouring to reach out for some of these American "ether-shakers."

A gentleman signing himself R.T.L., Lyttelton, wishes to know about that station below 2FC. This is KPO, San Francisco, and incidentally has been coming through very well on the speaker lately.

Mr. A. E. Allen (Avondale) has apparently mistaken the call WOW for WLW. There is an American station with the call WOW, but he is away up about 7ZL's frequency. WLW has been coming in like the proverbial local lately, but one needs a fairly selective receiver and needs to be well away from Wellington to receive him clearly. WLW is owned by the Crosley Radio Corporation and is situated at Cincinnati, Ohio.—D. T. Houston (Timaru).

DX Topics

I HAVE been fortunate in logging KFVD, Culver City, California, on the loudspeaker. This station transmits with a power of 250 watts, and can be found just below WLW.

To date, my log for the broadcast is 70, while my log on short-wave totals 73, making a grand total of 143 stations I have only verified about 20 stations.

Mr. Ellis appears to have the whip-hand as regards the number of station. I have only verified about 20 listener's paradise, where howlers, electrical interference, and fading are unknown.—D. T. Houston (Timaru).

3GX, Melbourne.

ON September 19 I picked up station 3GX, Melbourne. This station is not noted in the Listeners' Guide. Has any other D.X. reader heard this station.—"Amateur" (Southland).

On One Valve.

RE reference of September 6 issue to JOAK. I get this station, but it is JOHK. The announcer says the "H" like "ay-chee," and perhaps the writer of this par mistook this for AC. My set is a one valve home-made, and good aerial and earth. My log is as follows:—(Here "Nidray" adds 36 stations, including most New Zealand, Australian (7BY and 7CA) and some Japanese stations, also a few American.) I have had daylight reception of 2FC and 3BL (more than once). It is

possible to pick up 2YA without aerial or earth, and a few strands of wire round a picture frame act quite well as an aerial. Practically all the stations logged are readily picked any fairly decent night, and are by no means rare occasions.—"Nidray," Bay of Islands.

Useful Call-sign Information.

IT is surprising to note the confusion which exists concerning the wavelengths of the best-known Japanese stations. Mr. E. W. Anglesey seems very positive that JOAK overlaps 4QG, but as an experienced listener I can assure him that such is not the case. I have been listening to these Japs for the past twelve months, and cannot understand why anyone getting clear reception should confuse the call signs. The respective wave-lengths are as follows:—

	Metres.	Kilocycles.
JOAK	345	870
JOFK	353	850
JOIK	361	830
JOGK	380	790
JOHK	390	770
JOBK	400	750

Most of these stations are fairly strong on the speaker, especially JOAK, GK, HK, and BK. JOAK and JOHK can be heard as well as 3AR or 2GB on most occasions.

The Japanese pronunciation of the letter "H" in JOHK sounds very much like "AC" (hence misapprehension).

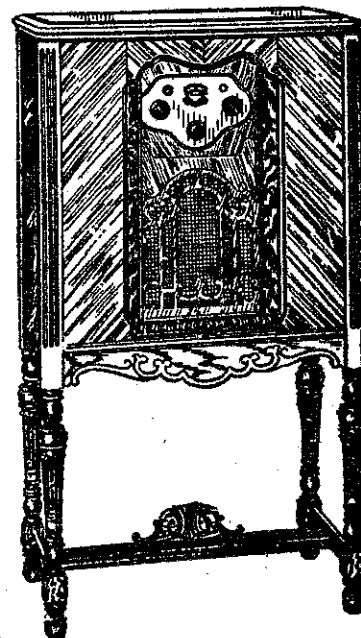
Mr. A. P. Morrison reports KZGA on 332.1 metres (905 kilocycles), and says that he had difficulty in separating him from IYA on 333 (900 kilocycles), but as IYA now operates on 338 metres (888 kilocycles), it appears to me that there is some mistake.

I have been DX-ing for two years now, but have not bothered to have many results verified. Amongst those on my verified list are WLW (50,000 watts) and KGER (100 watts). One station that I have not seen reported is KFSD, 500 metres (600 kilocycles). Early this week I logged 6WTF on his new frequency, giving market reports at 10.30 p.m., and have had him several times since, although spoilt by static and fading.—F. G. MacSherry (Auckland).

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Our Mailbag

(Concluded from page 10.)

A Suggested Alteration.

WE appreciate the introduction of the dinner session music. We have enjoyed the programmes from the different stations, but I would like to make a suggestion for the benefit of the farming community in general, and "cow-cockles" in particular. Do you think that the reversal of the times of the dinner and news sessions from a central station like 2YA would be more popular? As the farmers finish work late during the summer months and have late dinners, I am sure a late music session would be much appreciated.—J. T. Hargreaves (Hautapu).

Exide

BATTERIES

MEAN DEPENDABILITY.

Installed at 2YA, Wellington.

All sizes. From 9/- each

EXIDE SERVICE STATION

79 Kent Terrace, WELLINGTON

Wrestling Bouts.

THE wrestling match relayed by 2YA on Monday, September 23, was a great improvement. Mr. Announcer, of 2YA, is certainly good. He did not miss a grip or a hold, and the contest was easily able to be followed. We hope that the "Good night man" will be at the microphone at all future relays. The relay from Timaru by 3YA was also very good—absolutely no line hum or distortion. I quite agree with Mr. Martin (last week's Mailbag) regarding Mr. Announcer at 2YA, and I think that Wellington is indeed fortunate in having him. —"Robpuni."

Good DX Season.

DURING the last few weeks the distant stations have been coming in at great strength. Here are some new additions to my log. 6WF, Perth, R.6. KOA, Denver, 361 metres (8.30 kilocycles), 12,500 watts, R7 to 8. 2ZD, Masterton, 244 metres (1230 kilocycles), 5 watts. The last-mentioned has been verified. The American station comes in between 2BL and 3LO, and some listeners might have heard him on Sunday, 22nd. My reception of him was at good loudspeaker strength. My set is the latest type seven-valve All-Electric.—S. Ellis (Otako).

Park Island Installation.

IN connection with the recent installation of a radio set in the Park Island Home, I would like to state that since then we have received numerous American stations, and the following have been authenticated. (Here

Laboratory Jottings

Pierce Airo

WE have received from the Rodger Importing Company, Christchurch, a sample of the new Pierce Airo All-Electric. This new model, designed on the lines of the battery model Pierce Aero, will fit into a table cabinet designed for its predecessor.

There are seven valves—four 226's, one 227, two 171A's in push-pull. Rectification is carried out by means of one 280. The circuit is a balanced neutrodyne, neutralised by the grid suppressor method. The audio stages are transformer coupled. Single-dial control with a compensator allows of the greatest simplicity with highest efficiency. When the speaker is carried at a reasonable distance from the set there is no hum. The tonal qualities are excellent, its sensitivity is very good, and its selectivity almost perfect. A local station disappears in a very few degrees of the dial. An earth is not required, as automatic earthing takes place through the set. It is fully shielded, and provision is made for line voltage compensation. During the test the following sta-

Mr. Hay-Chapman adds a list of seven stations.—R. Hay-Chapman (Hawke's Bay).

[A report which the correspondent kindly enclosed appeared last week.—Ed.]

tions were logged:—1YA, 2YA, 2YB, 3YA, 4YA, 2ZL, 4ZC, 2BL, 2FC, 2UE, 3LO, 3AR, 4QG, 5CL, 7ZL, JOHK, JOFK, all on the speaker at good volume. Quite frequently the writer listened through an Australian programme while the local was operating. 2BL was received during its afternoon session.

Mr. Eric Shipley, 185a Manchester Street Christchurch, is the Canterbury agent. Further agencies are required throughout New Zealand.

Pilot Products

Balancing and Neutralizing Condensers.

Balancing and neutralising condensers are manufactured under the name "Neutrograd." They are made in 5, 7, 13 and 23 plate types and can be used in conjunction with single dial control to balance out any differences in the tuning coils. As neutralising condensers they give perfect results.

Valve Sockets.

Made in very many designs to suit UX, UV, and UY valves, Pilot valve sockets are the last word in valve socket design. The type tested were anti-microphonic and well sprung.

BRITISH radio programmes will shortly be made available to Canadian listeners by means of the beam wireless service.

Know More About Radio

"The Radio Listeners' Guide"

will Teach You everything!

HOW IT HELPS YOU

The "Radio Listeners' Guide" has been compiled by experts but the content is written in an easy-to-understand style. Every stage of radio is covered so that you can find out how to rectify any trouble without any previous knowledge of radio.

The "Radio Listeners' Guide" shows how to improve sets and how to construct all the new types. Nothing is left to your imagination and there is as much to interest the beginner as there is to help the most experienced amateur.

The 1929 revised edition is now procurable from all booksellers and radio dealers. If you should have any difficulty in obtaining a copy of this 160 page book, fill in the coupon and send 2s. 9d. in stamps to the publishers, Box 1032, G.P.O. Wellington.

Some of the Sections

A general description of radio, receivers, and broadcast is given so that readers unfamiliar with methods used, may have a full idea of what happens between the times when Mr. Announcer says "Hullo" and when it comes through your speaker.

Multi valve receivers are extensively dealt with, descriptive circuits are given of the most popular types, and full details re construction and tuning. The matter of maintenance is also dealt with in this section.

Perhaps the Glossary of Wireless Terms could be aptly described as one of the most helpful pages in the "Guide." Everything in radio is explained fully, even those wireless terms that have you tricked are dealt with in this section.

For those who desire to "sweep the world" the short wave section will be of undoubted assistance and the circuits and hints will help you to bring in all those stations your friends speak of so often.

(Postal Coupon for Country Readers.)
"N.Z. Radio Listeners' Guide, 1929-30."

"RADIO RECORD,"
P.O. Box 1032, WELLINGTON.

Please post me immediately.....copy
[ies] of your 160-page illustrated reference work "The
N.Z. Radio Listeners' Guide, 1929-30" at 2/9 per copy
posted. I enclose herewith postal notes for.....
(Add exchange to cheques.)

Signed.....

(Write address clearly).....

MR C. DRUMMOND, announcer at 2YA, Wellington, again displayed his versatility when he gave an admirable ringside description of the wrestling match between Alley and Eklund at the Wellington Town Hall last week. Mr. Drummond added interest to his work by describing the various holds instead of merely giving their technical names. This made the bout far more interesting to several hundreds of listeners who were unfamiliar with the wrestling terms.

SOONER or later hotels in New Zealand will adopt the plan of scores of American hotels, which have a central receiving set distributing broadcast reception to the rooms of the guests. A new system was recently demonstrated in New York by which the steel framework of the building was utilised for conducting radio programmes to the guests' rooms, instead of the usual network of wiring. The demonstration was conducted by a retired New York X-ray experimenter.

A SURFEIT of political speeches from the various Australian stations in connection with the Commonwealth Parliamentary elections has made many New Zealand listeners very thankful that political speeches in this country are banned. One could listen with interest to, say, one speech by the Commonwealth Prime Minister (Mr. Bruce), but the practice becomes obnoxious when lesser luminaries are heard night after night.

EVEN 2GB, Sydney, the Theosophical Society's B class station, added its quota to the broadcast political speeches last week. One had to seek here and there for music from the Australian stations, and not a few must have felt relieved when an Australian announcer said: "That concludes Mr. So-and-So's political speech from such-and-such a station. We will now proceed with our musical programme." Unfortunately these speeches were often so protracted that it was approaching midnight before the music was permitted to go on the air.

THE Japanese station on a frequency a little higher than that of 4QG, Brisbane (or, in other words, a little shorter in wavelength) was heard recently broadcasting some very fine Western gramophone records. The items were not identified by the writer, but they ranged from instrumental solos to band and orchestral items and vocal numbers. This was an agreeable change from the plethora of talk to which these stations are addicted.

A CONSIDERABLE number of listening-in licenses have been cancelled in Australia lately, and this is perturbing Mr. Stuart Doyle, chairman of the new Australian Broadcasting Company. He is endeavouring to obtain from the Commonwealth Postmaster-General's Department lists of cancellations of licenses and to ascertain what investigations have been made concerning the decrease. So far the reason is obscure.

A WELLINGTON listener, "A.C.," has dropped "Switch" a note asking whether it were possible to procure an a.c. screen grid unit to place between the aerial and his set to boost up reception. Such a unit has not been put on the market in any part of the world yet. The cost would be ex-

cessive as additional transformers would be required for a separate unit. However, a.c. sets with screen grid valves embodied have been on the New Zealand market for some time.

AN excessively sensitive set, operated at its fullest limits in the City of Wellington, has to contend with the multitude of mysterious man-made static noises which result. "Switch" heard reception from such a set recently, and, at half volume, it gave splendid results with Australian stations. However, when it was "opened out," crackling, spluttering, and humming from local electrical leakages crowded in.

THE writer was present when a discussion arose among a number of Wellington listeners as to which announcer did the best work in describing relays of football matches. Comparisons embraced the relays from Sydney, when Mr. Basil Kirke described the All Black football matches at Sydney. The listeners were hard-boiled football enthusiasts, and one was a former Wellington representative player. After the various YA relays were criticised in detail, honours went to the man who has been officiating at the microphone at the Athletic Park, Wellington.

WELLINGTON listeners are greatly interested in the projected opening of the new 4YA at Dunedin on October 16. Many Wellington listeners are too close to 2YA's transmitting aerial to tune through the local programme to get 4YA, but on Wednesday evenings when 2YA is silent the programme from 4YA, Dunedin, is well patronised, if one can judge by the number of howls and whistles accompanying it. 4YA even now is available with very fair loudspeaker strength on an average night in Wellington.

RELAYS from theatres make a big appeal to listeners, and possibly the "atmosphere" created by the applause is the main cause of their popularity. A fixture which promises to please some thousands of listeners is the relay by 1YA, Auckland, from Hamilton, of the Hamilton Operatic Society's performance of "Gipsy Love." It speaks well for an up-country town to foster an amateur operatic society of the reported capabilities of that at Hamilton.

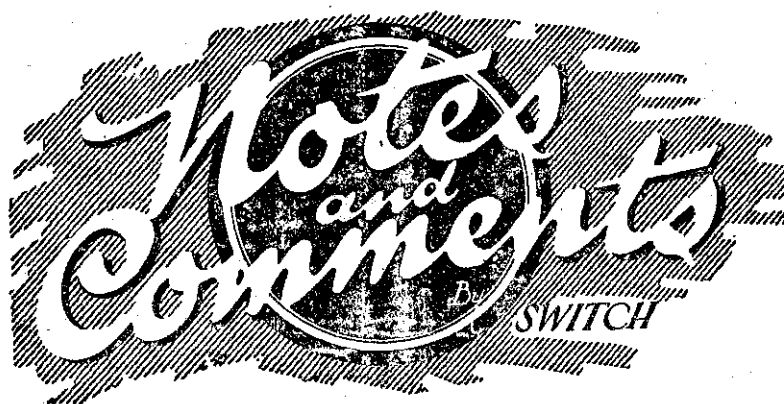
A WELLINGTON business man who lives a most strenuous life, tells "Switch" that he generally retires to bed about 9 p.m., and by the aid of his small, portable A.C. set he enjoys the

2YA programmes immensely. He uses only a small piece of flexible insulated wire for an aerial and has no "earth."

THERE are complaints from Australian listeners that the new Australian Broadcasting Company are not putting on enough news. Mr. Len Brown, Ballamin Station, Queensland, writes to the Sydney "Wireless Weekly" complaining about the insufficiency of news. He says: "The last figures of the Postmaster-General showed that 37 per cent. of the licenses in New South Wales were held by country subscribers. This would work out that they spend far more on wireless than

city residents when you consider the cost to the former against what the latter pays for his outfits. Hope you keep this matter going as we find ourselves going to New Zealand for news." There is no gainsaying that the news services from the New Zealand stations are really excellent.

RECEPTION of 2YA, Wellington, on a loudspeaker with a small portable two-valve set in a suburb of Newcastle, N.S.W., is reported by Mr. Frank H. Cole, in a letter to the Sydney "Wireless Weekly." He writes:—"Re those long-distance one-valvers: probably the sets are all they are cracked up to be, but locality of reception is a factor to be reckoned with. For instance, whilst residing in the Lake district, I was able to tune in most Sydney and inter-State stations, and, some nights, Adelaide on a cheap crystal set (no valves). Yet, when the same set was installed in Newcastle with a good aerial I was unable to tune in 2BL. In fact, I could only get the local station. Similarly, I was able to get fair loudspeaker results from 2YA on a small portable two-valve (2v.06) set in Mayfield, yet cannot get this station per phones on a four-valve set in central Newcastle. In anticipation of a competition for maximum reception on a minimum valvage, kindly note my name."



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Next Week's Features

Notes from 1YA

THE service in St. Mary's Cathedral will be broadcast on Sunday evening. Canon William Fancourt will be the preacher. A studio concert will follow at 8.30. The local singers will be Mrs. J. Le Petit (singing "Hush-teen," "Four by the Clock" and "The Arrow and the Song"), Mr. Clinton Williams, baritone (singing "Open the Gates of the Temple," "Give Me Youth and a Day," and "Her Rose"), and Miss Ina Bosworth, whose violin solos will be "Romance" and "Menuet Berenice." Recordings will comprise orchestral and band selections, a pianoforte solo by Friedman, a tenor solo by Charles Hackett, and an organ selection by G. I. Pattman.

AT 7 p.m. on Tuesday evening Mr. George Campbell will continue his motoring hints. At 7.40 another talk in the W.E.A. series will be given by Mr. F. N. Bamford, who will talk on "Designing a Small House."

A programme of popular operatic numbers will be presented on Tuesday evening. The vocalists, the Olympian Quartet, will be associated in gems from various operas, including "Cavalleria Rusticana," "Carmen," "The Bohemian Girl," and "The Lily of Killarney," while orchestral renderings from Wagner's "Parsifal" will also be heard. The Studio Trio will render some very fine numbers including "Cradle Song" (by Winge) and "Peasant Dance" (by Hartmann), and Miss Mollie Wright will play the 'cello solo by Lalo, "Chanson Villageoise." Mr. A. B. Chappell, M.A., will give another of his interesting "Topical Talks," and the Auckland Comedy Players will present a sketch "Complaints Department." Mr. J. F. Montague will recite "The Book with the Yellow Pages."

ON Wednesday, at 7.40 p.m., Mr. Norman Kerr will continue his talks on Physical Culture, a series which is greatly appreciated by listeners.

The Auckland Artillery Band will supply the instrumental portion of the programme on Wednesday evening. This combination is much appreciated by listeners, and an excellently varied programme has been arranged. Miss Kay Christie, the popular young contralto, will sing some ballads, and Mr. T. T. Garland will again diffuse his inimitable humour. A new singer to 1YA will be heard, Mr. J. B. McLean, a tenor with extensive concert and theatrical experience in England and South Africa. To conclude the programme, "A Commentator" will give a

Radio Scamps." This is a programme of mirth and melody.

The Esperanto series will be continued on Friday at 7.40 p.m., the speaker being Mr. W. G. E. Wheeler.

On Friday evening there will be a relay from Cambridge of the Competitions Demonstration Concert.

OF great interest to amateur gardeners will be a talk on Saturday at 7.40 p.m. by Mr. A. E. McMahon on "Dahlias."

Well varied will be Saturday's programme. Songs by Mr. Frank Sutherland will be "Mendin' Roadways,"

until 11 p.m. a "Brunswick" dance programme will be broadcast.

THE City Silver Band, which plays under the conductorship of Mr. C. A. Forrest, will on Thursday evening present another of their entertaining programmes. The band items comprise a selection from "H.M.S. Pinafore," a humoresque "A Trip to Blackpool," a cornet solo "The Lost Chord," Lithgow's selection "Knight Errant," and several marches and waltzes. The vocalists for the evening will be Mr. Harry Phipps (tenor), Miss Veronica Mackenzie (soprano), Miss Agnes McDavitt (contralto), and Mr. L. Bent (baritone).

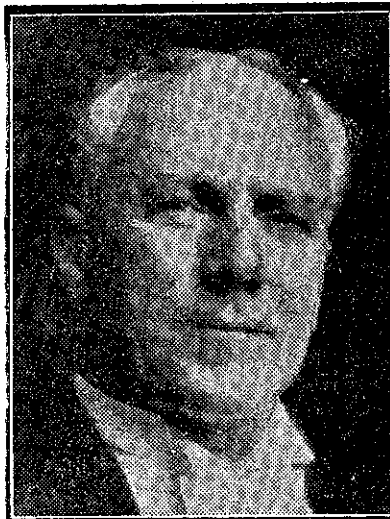
A FEATURE of Thursday's programme will be a lecturette by Mr. Johannes Andersen on "Maori Music." Mr. Andersen is an acknowledged authority on Maori music, and his remarks on the subject will be listened to with interest by everyone in his radio audience.

THE Philharmonic Quartet, with the assistance of the orchestra, will on Friday evening present a programme of excerpts from "The Rebel Maid" and grand opera and musical comedy, and the elocutionary items of the evening will be given by Mr. Errol Muir, the



MISS SARAH STACPOOLE,
A very promising young soprano,
appearing at 1YA.

—S. P. Andrew, photo.



MR. JOHN McDOUGALL,
Tenor, a member of Madame Towsey's Quartet at 1YA.

—S. P. Andrew, photo.

half-hour review of latest recordings. This is the second of a regular fortnightly series.

Once again the ever-popular Radio Scamps will appear on Thursday evening in "Still More Scampers with the

"Listenin'," and "Cavalier." There will be monologues by Miss Nina Scott, elocutioniste. The Bohemian Duo and Ingall's Hawaiians will combine in some splendid light instrumental numbers. Cadman's "Four American Indian Songs" will be played by the Studio Orchestra.

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For TONE QUALITY—AMPLIFICATION—CONSTRUCTION—and PRICE there is nothing to beat "ALLTRON."

Your BATTERY-OPERATED SET can be improved by using Type 201A Alltron 7/6 at, each

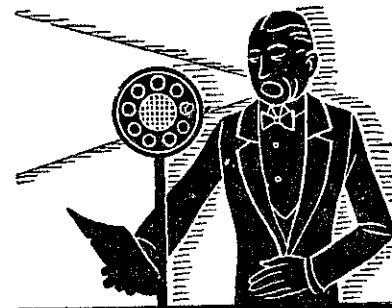
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Notes from 2YA

THE Presbyterian service conducted in St. John's Church by the Rev. J. R. Blanchard will be broadcast on Sunday evening. A relay from His Majesty's Theatre of the concert to be given by the Municipal Tramways Band under Mr. E. Franklin will follow.

A BRIGHT and varied programme will be given on Tuesday evening by the "Strollers" radio party. The items include vocal solos, humorous items, and sketches of a bright nature. The party will be assisted by the orchestra, whose items will be the "Lustspiel" overture, a selection "In Norwegian Fjords," and Coleridge Taylor's "Petite Suite de Concert." From 9.30



O Sole Mio

—is a wonderful song when the dishes have been cleared away and you are sitting by a cosy fireside—but it isn't much of a help to the housewife preparing scones and cakes for the evening meal.

ANCHOR SKIM MILK POWDER

Now—there is something useful. Makes scones and cakes much lighter, gives them richer flavour, increases food value. Keeps them fresh for days longer.

From Your Grocer.

Price 1/2 Per Tin

The "Anchor" Folder contains a number of excellent tested recipes. Write for Free Copy to-day to "Anchor," Box 344, Auckland.

winner of the elocutionary championship at the recent Wellington Competitions Society's festival.

ON Saturday evening a bright vaudeville programme will be given by the following artists:—The Melodie Four, Miss Adele Taylor, Mr. Barry Myddleton (entertainer at the piano), and the Berthold and Bent Steel Guitar Duo. The orchestra will contribute numerous selections. Mr. L. W. Probert will play as a xylophone solo, with Tell's overture. At 10 p.m. a "Columbia" dance programme will be presented, and at 10.45 the usual "Sporting Summary" of the day's events will be broadcast.

3YA Features

THE Church of England service, conducted in St. Mary's, Merivale, will be broadcast by 3YA on Sunday evening. The Venerable Archdeacon P. B. Haggitt will be the preacher, and Mr. Alfred Worsley the organist and musical director. The after-church broadcast will consist of a rebroadcast of 2YA.

THE Christchurch Municipal Band under Mr. J. Noble, assisted by vocal artists, will provide Monday evening's programme. Many diversified items will constitute the band's programme. Mrs. Stephen Parr (mezzo soprano) will present two Old World dancing songs, "Powder and Patches" (minuet), "In the Gay Olden Time" (gigue), and three Cockney cameos, "When the Spring Comes to London," "Mother's Washing Day," and "Down Petticoat Lane." Miss Margaret Richardson will sing several Scottish airs. Archdeacon Taylor, who was at one time a member of the Christchurch Male Voice Choir, will sing "Little Mother of Mine," "I Fear no Foe," and "Nancy Lee." Miss Alice Chapman will contribute three recitations. Popular jazz songs will be sung by Mr. Fred Hale, new to 3YA, but well known as a professional vaudeville performer.


ON Wednesday evening the new instrumental octet under Mr. Harold Beck appears for the first time. The supporting vocal artists will be the Salon Quartet, among whose items will be numerous operatic numbers, both solo and concerted.

Have you obtained your copy of the "N.Z. Radio Listener's Guide"?

Dealers and booksellers 2/6; Post Free 2/9—P.O. Box 1032, Wellington.

Available everywhere.

Coughs gone
thanks to
Pulmonas
RELIEF BY INHALATION



AT 7.30 on Thursday evening, Mr. N. O. D. Alexander, of Canterbury Agricultural College, will speak to farmers on "Scheme of Official Pig Recording." This talk has been arranged by the 3YA Primary Productions Committee.

FEATURED on Thursday evening's classical programme, when the vocal numbers will be sung by the Melodious Four, will be a new string quartet under Signor Oddone Savini. The vocal numbers on the programme will comprise solo, duet, and quartet numbers. Recitations by Miss Ruby Boot will be "Christmas Legend" and "The Rider of the Sea."

ON Friday evening the Studio Octet under Mr. Harold Beck again contribute to the evening's programme, presenting popular music. The selections will include "March Militaire" (Schubert), a waltz, a musical comedy selection, Lemare's "Andantino," "Czar-das" (by Delibes), "Broadway Melody," "Wedding of the Painted Doll," and "Sentimental Swanee." Baritone solos will be sung by Mr. J. Francis Jones. Mirth and melody will be provided by the Chatterboxes in songs and sketches. A programme of dance music will follow.

ON Saturday evening, the entertainment will consist of old-time songs and recitations with old-time dances.

4YA Notes

THE service in First Church will be broadcast on Sunday evening. Professor S. F. Hunter, M.A., D.D., will be the preacher, and the organist Dr. V. E. Galivay.

ON Monday evening there will be a relay of the concert to be given by the Royal Dunedin Male Choir concert in His Majesty's Theatre. The conductor is Dr. V. E. Galivay.

THE studio concert to be given by the St. Kilda Band on Tuesday evening will consist of numerous varied items. The assisting artists will be Miss Rita Holmes (soprano), and Mr. T. White (bass), while elocutionary items will be given by Mr. Lester Moller.

THE vocalists for Wednesday evening will be the Serenaders. Quartet numbers will be two old favourites, "Killarney" and "Home, Sweet Home." Popular solos will be sung by Miss Florence Sumner, Miss Dorothy Allan, Mr. W. Harrison and Mr. R. B. Macdonald. An interesting instrumental programme will be provided by the Studio Trio.

A debate before the microphone will be an entertaining feature of Wednesday evening's programme. The subject to be discussed by the Dunedin Debating and Social Club will be "That the introduction of machinery has done more harm than good."

ON Friday evening the vocalists will be Miss Winnie Collier, Miss Margaret Howden, Mr. Allan Mitchell, and Mr. W. Ruffell. Monologues will be given by Miss Joyce Gould, and there will be instrumental items by the members of the Studio Trio.

Children's Sessions

FROM 1YA.

TUESDAY, OCTOBER 8:

Songs from cousins Ruth and Ngaira, recitations from cousin Joyce, some of our favourite records, and, of course, Uncle George with more of the Dr. Dolittle stories.

WEDNESDAY:

Uncle Tom with us again, and will cheer us on our way with story and song. Songs from some of our cousins, and birthday greetings to the birthday folk.

THURSDAY:

Piano solos and recitations from cousins, puzzles and conundrums from Peter Pan.

FRIDAY:

Nod back again, after his wanderings in the south, and we expect to hear about his experiences there. Aunt Jean will have songs to sing and stories to tell.

SATURDAY:

Birthday greetings and stories and jokes from Cinderella, and cousins entertaining at the piano and with recitations.

SUNDAY:

Children's Song Service conducted by Uncle Len as Uncle Leo is away.

FROM 3YA.

MONDAY, OCTOBER 7:

S is for "Scatterjoy," whose evenings are thrilling.

M are the "Melody Maids" whose forte is sweet singing.

WEDNESDAY:

M is for "Mother Hubbard," who is singing to-night.

U is for "Uncle Frank," whose stories you like.

THURSDAY:

J is for "John," an uncle young and gay.

C is the Choir who will sing a sweet lay.

FRIDAY:

S is for "Storyman" with his stories for all.

Rona, Betty and Nancy, each will sing at his call.

SATURDAY:

B is for "Brother Bih"—so watch out for him.

G is the "Good-night" song, cousin Alice will sing.

SUNDAY:

S is for Sunday and for Song Service too;

We look for this hour just as much as you do.

Transmission from 'Planes

THE progress that is being made in radio telephone communication from the air is illustrated by the fact that when the French monoplane "Yellow Bird" was taking off on its trans-Atlantic flight it was followed for a short distance by a coastguard 'plane on which a short-wave radio-phone had been installed. From this 'plane reports were sent back to the flying field, describing how the French 'plane was handled over the sea and the weather conditions, etc. These transmissions from the 'plane were rebroadcast from station WCSH (Portland) and heard by thousands of listeners scattered throughout the Eastern States.

Railroad Radio

An Interesting System

OWING to the tremendous lengths of many of the American goods-trains, some means of establishing communication between the engine crew and the guard has had to be devised. The two are frequently over a mile and a half apart, and hence any form of visual communication is obviously impossible, owing to the curves which the train would have to negotiate during its journeys. Telephonic and telegraphic communication has been tried out, but has proved to be unreliable, and mechanical forms of communication are not at all satisfactory.

If radio-telephony were to be employed, there were three main difficulties to be overcome, namely, (a) the necessary installation had to be constructed to withstand the extreme vibration and joltings of the train, (b) any possible atmospheric interference had to be prevented, and (c) the installation had of necessity to be fool-proof and as simple as possible. However, after many protracted tests, these difficulties were overcome, and an ideal system of shortwave radio-telephony communication was devised.

The locomotive transmitter, operated by a turbine-driven generator, works on a wavelength of 130 metres (2300 kilocycles), and delivers a power to the aerial of 45 watts. A cone loud-speaker is fitted up in the cab, and produces sufficient volume to override the noises made by the engine. The guard's equipment at the end of the train is identical with the apparatus employed by the driver. The mode of operation is such that by depressing a button the equipment transmits, and by releasing it, reception only is possible. Thus the equipment at either end is always maintained when not in use, at the "receiving" or "stand-by" condition.

Finally, at various depots along the railroad system, small transmitters are being installed for the purpose of issuing instructions to train-crews. Such a system of signalling between depots and trains is a material safeguard in foggy and rough weather, and it is a system which is now being adapted for passenger train communication.

THE Director of Postal Services stated in Sydney recently that he was taking steps to inaugurate a new system of issuing radio licenses. Under the new arrangement dealers would be able to issue a license to anyone as soon as the set was purchased.

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Full Programmes for Next

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Sunday, October 6

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, OCTOBER 6.

- 3.0 : Afternoon session—Selected studio items.
 4.0 : Literary selection by the Announcer.
 6.0 : Children's session, conducted by Uncle Leo.
 6.55 : Relay of service from St. Mary's Cathedral—Preacher: Canon William Fancourt; organist: Mr. Edgar Randall.
 8.30 (approx) : Studio Concert:
 Royal Philharmonic Orchestra, "The Flying Dutchman" (Wagner) (Columbia Record 1961-2).
 Baritone—Mr. Clinton Williams, "Open the Gates of the Temple" (Knapp).
 Pianoforte—Ignaz Friedman, "Music Box" (Friedman) (Columbia Record 03504).
 Soprano—Mrs. J. Le Pettit, (a) "Husheen" (Needham); (b) "Four by the Clock" (Mailinon).
 Violin—Miss Ina Bosworth, "Romance" (Wieniawski).
 Tenor—Charles Hackett, "Beloved, It Is Morn" (Aylward) (Columbia 04060).
 Organ—G. T. Pattman, "Evensong" (Martin) (Columbia Record 9206).
 Baritone—Mr. Clinton Williams, (a) "Give Me Youth and a Day" (Drummond); (b) "Her Rose" (Speaks).
 Violin—Miss Ina Bosworth, "Menuet Berenice" (Handel).
 Soprano—Mrs. J. Le Pettit, "The Arrow and the Song" (Balfe).
 Selection—Band of H.M. Grenadier Guards, "Cleopatra" (Mancinelli) (Columbia Record 0460).
 9.31 : Close down.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, OCTOBER 6.

- 3.0 : Afternoon session—Selected studio items.
 4.30 : Close down.
 6.0 : Children's session conducted by Uncle George.
 7.0 : Relay of service from St. John's Presbyterian Church (Preacher, Rev. J. R. Blanchard, B.A.; Organist and Choirmaster, Mr. C. W. Kerry).
 8.15 (approx.) : Relay from His Majesty's Theatre of concert by the Wellington Municipal Tramways Band under the conductorship of Mr. E. Franklin.
 Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, OCTOBER 6.

- 3.0 : Afternoon session—selected gramophone items.
 4.30 : Close down.
 5.30 : Children's song service—Children of the Church of England Sunday Schools.
 6.15 : Hymn chimes from studio.
 6.30 : Relay of service from St. Mary's (Church of England), Merivale:—Preacher: Ven. Archdeacon P. B. Haggitt. Organist and Musical Director: Mr. Alfred Worsley.
 7.45 : (Studio Programme):
 Choral—Berlin Union of Teachers, (a) "The Loreley" (Silcher); (b) "The Heavens are Telling" ("Creations Hymn" (Beethoven-Moldenhauer), (Parlophone Record A5009).
 7.53 : Instrumental Studio Trio, "Trio" (Bremner).
 Bass with chorus—Ivar Andressen and chorus—"The Sacred Name of God" ("The Force of Destiny") (Verdi) (Parlophone Record A5010).
 Soprano with chorus—Meta Seinemeyer, "La Vergine Degli Angeli" ("The Force of Destiny") (Verdi) (Parlophone Record A5010).
 8.16 (approx.) : Rebroadcast of 2YA Wellington (Relay from His Majesty's Theatre of concert by the Wellington Municipal Tramways Band under the conductorship of Mr. E. Franklin).
 Close down.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, OCTOBER 6.

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 4.30 : Close down.
 5.30 : Children's song service, conducted by Big Brother Bill.
 6.30 : Relay of service from First Church:—Preacher: Professor S. F. Hunter, M.A., D.D. Organist: Dr. V. E. Galway.
 8.0 : Studio Concert.
 9.15 : Close down.

Monday, October 7

1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, OCTOBER 7.

SILENT DAY.

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, OCTOBER 7.

- 3.0 : Chimes of the G.P.O. clock.
 3.1 : Selected gramophone items.
 4.30 and 4.50 : Sports results to hand.
 5.0 : Children's session conducted by Uncle Jeff.
 6.0 : Dinner session—"Columbia" Hour:
 William Mengelberg's Concertgebouw Orchestra, "Valse—Serenade" (Tschalkowsky) (04234).
 British Broadcasting Company's Military Band, (a) "Golliwogs' Cake Walk" (Debussy), (b) "Dance of the Tumblers" ("The Snow Maiden") (Rimsky-Korsakov) (02893).
 6.12 : Tacet.
 6.15 : Basle Symphony Orchestra, "Invitation to the Waltz" (Weber) (02853).
 Budapest Philharmonic Orchestra, "Rakoczy March" (Berlioz) (02729).
 6.27 : Tacet.
 6.30 : J. H. Squire's Celeste Octet, "Introduction and Romance" ("Mignon") (02749).
 Orchestra Symphonique de Paris, "Ballet Egyptian" (Luigini): (1) Allegro; (2) Allegretto (02785).
 6.42 : Tacet.
 6.45 : Orchestre Symphonique de Paris, "Ballet Egyptian" (Luigini): (1) Andante; (2) Finale (02786).
 J. H. Squire's Celeste Octet, "Polonaise" ("Mignon"—Thomas) (02749).
 6.57 : Tacet.
 7.0 : News session, market reports and sports results..
 7.40 : Lecturette, Mr. H. C. South, "Books—Grave and Gay."
 8.0 : Chimes of the G.P.O. clock.
 8.1 : Special studio presentation of Edgar Wallace's latest thriller in three acts, "The Man Who Changed His Name."

Cast:

Selby Clive Mr. Victor S. Lloyd
 Nita Olive Miss Elsie Lloyd
 Frank O'Ryan Mr. E. A. Clark
 Jerry Muller Mr. H. A. Painter
 Sir Ralph Whitcombe Mr. E. R. Render
 Lane (a servant) Miss Susie Watts
 Producer, Mr. Victor S. Lloyd.

- Overture—Orchestra, "Ruy Blas" (Mendelssohn).
 8.9 : Act 1 (Scene: The sitting-room of Selby Clive's house at Ascot).
 Entr'acte—Orchestra, "Waltz Triste" (Sibelius).
 Act 2 (Same scene as in Act 1).
 Entr'acte—Orchestra, "Misterioso" (Gabriel Marie).
 Act 3 (Same scene as in two preceding acts).
 Instrumental—Orchestra, "Polonaise Militaire" (Chopin).
 Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, OCTOBER 7.

- 3.0 : Afternoon session—Selected gramophone items.
 4.25 : Sports results to hand.
 4.30 : Close down.
 5.0 : Children's session, conducted by Scatterjoy.
 6.0 : Dinner session—"His Master's Voice" Hour:
 March—United States Army Band, "Army and Marine" (Starke) (Zonophone EE145).
 Piccadilly Orchestra, "The Waltz Dream" Selection (Strauss) (H.M.V. B2684).
 Jack Hylton's Orchestra, "My Inspiration is You" (Nicholls) (C1577).
 6.12 : Tacet.
 6.15 : Royal Opera Orchestra, "Sylvia Ballet—Prelude and Intermezzo" (Delibes) (C1417).
 Salon Orchestra, "Chanson Bohemienne" (Boldi) (B2581).
 6.27 : Tacet.
 6.30 : Jack Hylton's Orchestra, "A Room with a View" (Coward) (C1577).
 Salon Orchestra, "Aloha Sunset Land" (Kawelo) (B2581).
 San Francisco Symphony Orchestra, "Marche Militaire" (Schubert) (ED9).
 6.42 : Tacet.
 6.45 : Detroit Symphony Orchestra, "Spanish Rhapsody" (Chabrier) (E522).
 Balalaika Orchestra, "Shining Moon" (Russian Folk Song) (EA48).
 March—United States Army Band, "American Spirit" (Buglione) (Zonophone EE145).
 6.57 : Tacet.

Week-all Stations-to Oct. 13

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- 7.0 : News session.
 7.15 : Talk—Mr. N. M. Bell, "Esperanto Grammar."
 8.0 : Chimes.
 Studio programme by the Christchurch Municipal Band under the conductorship of Mr. J. Noble, and assisting artists:
 8.1 : March—Band, "Gill Bridge" (Ord Hume).
 8.7 : Mezzo-soprano—Mrs. Stephen Parr, (a) "Powder and Patches," (b) "In the Gay Olden Time" (Old World dance songs) (Montague Phillips).
 8.11 : Part-song—Salisbury Singers, "Sleep, Gentle Lady" (Planche) (Columbia 01498).
 8.14 : Instrumental—Studio Trio, "Trio in G" (Bohm).
 8.24 : Baritone—Archdeacon F. N. Taylor, (a) "Little Mother o' Mine" (Burleigh), (b) "I Fear No Foe" (Pinsuti).
 8.30 : Patrol—Band, "Jungle Drums" (Ketelbey).
 8.36 : Scottish song—Miss Margaret Richardson, "Within a Mile of Edinburgh Town" (Scottish traditional).
 8.40 : Wurlitzer organ—Terence Casey, "Annie Laurie" (with variations) (arrgd. Casey) (Columbia 02842).
 8.44 : Recital—Miss Alice Chapman, "The Skating Rink" (MS.).
 8.48 : Popular songs—Mr. Fred Hale, (a) "Raggin' Thro' the Rye" (Emmet Adams), (b) "Kiss Me Again" (Wynn Stanley).
 8.54 : Selection—Band, "W. H. Squire's Popular Songs" (arrgd. Ord Hume).
 9.4 : Weather report.
 9.6 : Mezzo-soprano—Mrs. Stephen Parr, Cockney Cameos, (a) "When the Spring Comes to London," (b) "Mother's Washing Day," (c) "Down Petticoat Lane" (Leslie Elliott).
 9.12 : Part-song—Salisbury Singers, "Round About a Wood" (Morley) (Columbia 01498).
 9.15 : Instrumental—Studio Trio, "Four Spanish Dances" (Moszkowski).
 9.25 : Baritone—Archdeacon F. N. Taylor, "Nancy Lee" (Stephen Adams).
 9.29 : Cornet duet with band accompaniment—"Miserere" ("Il Trovatore"—Verdi).
 9.37 : Contralto—Miss Margaret Richardson, (a) "Love's Sorrow" (Rowe Shelley), (b) "Jock o' Hazeldean" (Wilson).
 9.43 : Recitals—Miss Alice Chapman, (a) "'Tisn't Worth It" (Wilcocks), (b) "That Cat" (Rutherford).
 9.48 : Reverie—Band, "The Priory Bell" (Ord Hume).
 9.54 : Popular song—Mr. Fred Hale, "Forty-Seven Ginger-Headed Sailors" (Sarony).
 9.58 : March—Band, "Great Little Army" (Alford).
 10.2 : Close down.

4YA, DUNEDIN (650 KILOCYCLES).—MONDAY, OCTOBER 7

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 4.25 : Sports results to hand.
 4.30 : Close down.
 6.0 : Children's session, conducted by Uncle Allan.
 7.0 : News session.
 8.0 : Town Hall chimes.
 8.1 : Relay from His Majesty's Theatre of concert by the Royal Dunedin Male Choir.
 10.0 : Close down.


Tuesday, October 8

1YA, AUCKLAND (900 KILOCYCLES).—TUESDAY, OCTOBER 8.

- 3.0 : Afternoon session—selected studio items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by Uncle George.
 6.0 : Dinner Session—"Broadcast" Hour:
 Metropolitan Symphony Orchestra, "La Boheme" selection (Puccini) (5040).
 Violin—Peggy Cochrane, "Chanson Indoue" (Rimsky-Korsakov) (5042).
 6.13 : Tacet.
 6.15 : Pianoforte—Maurice Cole, "Liebestraume" (Liszt) (5008).
 Metropolitan Symphony Orchestra, "Lilac Time" selection, (Schubert-Clutsam) (5004).
 6.27 : Tacet.
 6.30 : Russian Imperial Trio, (a) "Because" (d'Hardelot); (b) "Liebesleid" (Kreisler) (BA111).
 Scroll Picture Theatre Orchestra, (a) "The Grasshopper's Dance" (Bucalossi); (b) "The Phantom Brigade" (348).

- 6.43 : Tacet.
 6.45 : Organ—Berkeley Mason, "Polonaise in A Major" (Chopin) (5065).
 Violin—Jan Rubini, "Gypsy Airs" (Sarasate) (A1000).
 Bidgood's Augmented Dance Band, "Popular Musical Comedy Waltz Medley" (5058).
 6.57 : Tacet.
 7.0 : Talk—Mr. Geo. Campbell, "Motoring."
 7.15 : News and market reports.
 7.40 : Talk—Mr. F. N. Bamford, "Designing a Small House" (W.E.A. series).
 8.0 : Chimes.
 8.1 : Berlin State Opera Orchestra, "Parsifal—Prelude Act 3" (Wagner) (H.M.V. D1537).
 8.9 : Vocal duet—Miss D. Youd and Mr. Barry Coney, "Cavalleria Rusticana—Santuzza and Alfio's Duet" (Mascagni).
 8.13 : Instrumental—Studio Trio, (a) "Cradle Song" (Winge); (b) "Peasant Dance" (Hartmann).
 8.22 : Tenor—Mr. Lambert Harvey, "Flower Song" ("Carmen") (Bizet).
 8.26 : Sketch—Auckland Comedy Players, "Complaints Department" (Peach).
 8.36 : Contralto—Miss M. Williamson, "Lola's Song" ("Cavalleria Rusticana") (Mascagni).
 8.42 : 'Cello—Miss Mollie Wright, "Chanson Villageoise" (Lalo).
 8.46 : Baritone—Mr. Barry Coney, "Ella Giammai M'Amo" ("Don Carlo") (Verdi).
 8.50 : Talk—Mr. A. B. Chappell, Topical Talk.
 9.5 : Weather report.
 9.7 : Band—National Military Band, "Tannhauser" Selection (Wagner) (Zonophone A358).
 9.11 : Soprano—Miss D. Youd, (a) "Sequidilla"; (b) "Habanera" ("Carmen") (Bizet).
 9.15 : Recital—Mr. J. F. Montague, "The Book With the Yellow Pages" (Anon.).
 9.23 : Berlin State Opera Orchestra, "Parsifal—Knights enter the hall with Amfortas" (Wagner) (H.M.V. D1542).
 9.27 : Baritone—Mr. B. Coney, "The Heart Bowed Down" ("The Bohemian Girl") (Balfe).
 9.31 : Instrumental—Studio Trio, "Three Famous Pictures" (Wood).
 9.39 : Contralto—Miss M. Williamson, "Caro Mio Ben" (Giordani).
 9.43 : Sketch—Auckland Comedy Players, "The Price" (Jeans).
 9.53 : Vocal duet—Messrs. Barry Coney and Lambert Harvey, "The Moon Hath Raised" ("Lily of Killarney") (Benedict).
 9.57 : National Military Band, "Lohengrin" (Wagner) (Zonophone A358).
 10.1 : Close down.

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2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, OCTOBER 8.

- 3.0 : Chimes of the G.P.O. clock.
 3.1 : Selected gramophone items.
 4.30 and 4.50 : Sports results to hand.
 5.0 : Children's session conducted by Uncle Jim.
 6.0 : Dinner session—"His Master's Voice" Hour:
 National Symphony Orchestra, "Die Fledermaus" (The Bat) (Strauss)
 (Zonophone EF25).
 Salon Orchestra—"Serenade" (Toselli) (H.M.V. EA358).
 Pianoforte—Frank Banta, "The World is Waiting for the Sunrise"
 (Lockhart) (Zonophone EE153).
 6.14 : Tacet.
 6.15 : New Light Symphony Orchestra, "Liebestraume" (Liszt) (Zonophone
 EE10).
 Violin and cinema organ—Charles Williams, "Intermezzo—Cavalleria
 Rusticana" (Mascagni) (Zonophone 5280).
 Piccadilly Orchestra, "Lolita" (Ferrete) (H.M.V. EB18).
 Instrumental—The Troubadours, "Popular Songs of Yesterday"
 (EB38).
 6.29 : Tacet.
 6.30 : Marek Weber's Orchestra, "Pot Pourri of Waltzes" (Robrecht)
 (C1544).
 Cinema organ—Leslie James, "Lily of Laguna" (Stuart) (B2902).
 New Light Symphony Orchestra, "Just a Memory" (de Sylva) (EB18).
 6.45 : Hilo Hawaiian Orchestra, (a) "Hawaiian Nights," (b) "Aloma"
 (Bowers) (EA810).
 Violin and cinema organ—Charles Williams, "Annie Laurie" (Scott)
 (Zonophone 5280).
 Victor Concert Orchestra, "In a Monastery Garden" (Ketelbey) (Zono-
 phone EF7).
 6.58 : Tacet.
 7.0 : News session, market reports and sports results.
 7.40 : Lecturette—Representative of the Agricultural Department, "For the
 Man on the Land."
 8.0 : Chimes of the G.P.O. clock.
 8.1 : Special programme by "The Strollers" Radio Party:
 Overture—Orchestra, "Lustspiel" (Kela Bela).
 8.9 : Tenor—"Where the River Shannon Flows" (Russell).
 Soubrette—"You've Got to Learn to Smile" (O'Hagan).
 Humour—"The Bird on Nellie's Hat" (Solman).
 Chorus—"Going Up" (Hirsch).
 8.24 : Instrumental—Orchestra, "In Norwegian Fiords" (Fredericksen).
 8.34 : Soubrette—"Can't Help Lovin' Dat Man" (Kern).
 Baritone—"A Bachelor Gay" (Simpson).
 Patter.
 Vocal duet—"A Paradise for Two" ("Maid of the Mountains" (Simp-
 son)).
 Chorus—"Give a Little Kiss" (Romborg).
 8.40 : Instrumental—Orchestra, request number.
 8.59 : Weather report.
 9.1 : Tenor—"Country Folks" (Brahe).
 Patter.
 Soprano—"Pale Moon" (Logan).
 Humour—"I Lift Up My Finger" (Sarony).
 Baritone—"Song of the Vagabonds" ("The Vagabond King") (Friml).
 9.20 : Instrumental—Orchestra, "Petite Suite de Concert" (Coleridge-Taylor)
 9.30 : "Brunswick" Dance Programme:
 Waltz—Municipal Band, "Wedding of the Winds" (Hall) (57014).
 Waltz—Regent Club Orchestra, "Blue Waters" (Shilkret). (4280).
 Foxtrot—Copley Plaza Orchestra, "Dream Mother" (Lewis).
 Foxtrot—Copley Plaza Orchestra, "Old-Fashioned Lady" (Silver)
 (4323).
 9.42 : Organ—Eddie Dunstedter, "Marie" (Berlin) (4292).
 Foxtrot—Six Jumping Jacks, "She's Got Great Ideas" (Tobias) (4351).
 Foxtrot—Colonial Club Orchestra, "Leave Me a Beautiful Melody"
 (Spier) (4256).
 Foxtrot—Six Jumping Jacks, "Oh! Baby, What a Night" (Brown)
 (4351).
 Waltz—Regent Club Orchestra, "Just an Old Love Affair" (Kahn)
 (4280).
 9.57 : Soprano—Marie Tiffany, "Darling Nellie Gray" (Henby) (15179).
 Foxtrot—Colonial Club Orchestra, "Naughty Eyes" (Ford) (4256).
 Foxtrot—Ray Miller's Orchestra, "Cradle of Love" (Wayne) (4233).
 Waltz—Municipal Band, "My Treasure" (Becucci) (7014).
 Waltz—Ben Bernie's Hotel Roosevelt Orchestra, "Coquette" (Berlin)
 (4284).
 10.12 : Organ and vibraphone—Lew White, "Lover, Come Back to Me" (4301).
 Foxtrot—Eight Radio Stars, "A Happy Ending" (Von Tilzer) (4311).
 Foxtrot—The Clevelanders, "What a Girl, What a Night" (Sanders)
 (4205).
 Waltz—Ray Miller's Orchestra, "My Angeline" (Wayne) (4233).
 Waltz—Regent Club Orchestra, "Dear, When I Met You" (4314).
 10.27 : Vocal duet—Frank and James McCravy, "A Bird in a Gilded Cage"
 (Lamb) (4335).
 Foxtrot—Brunswick Orchestra, "Mon Homme" (Pollack) (4213).
 Foxtrot—Ben Bernie's Orchestra, "Till We Meet" (Davis) (4284).
 Foxtrot—Eight Radio Stars, "Under the Stars of Havana" (Cole-
 man) (4311).
 Waltz—Regent Club Orchestra, "Underneath the Russian Moon" (Ken-
 dia) (4214).

- 10.42 : Piano and trumpet, Lee Sims, "Caressing You" (Klanges) (4339).
 Foxtrot—Colonial Club Orchestra, "Walking with Susie" (Gottler)
 (4347).
 Foxtrot—Dave Rubinoff's Orchestra, "A Garden in the Rain" (4344).
 Waltz—Bob Haring's Orchestra, "By-and-By, Sweetheart" (Yellen)
 (4316).
 Waltz—Dave Rubinoff's Orchestra, "Blue Hawaii" (Baer) (4344).
 11.0 : Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, OCTOBER 8.
SILENT DAY.**4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, OCTOBER 8.**

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 4.25 : Sports results to hand.
 6.0 : Children's session, conducted by Big Brother Bill.
 7.0 : News session.
 7.30 : Lecturette—under the auspices of the Workers' Educational Associa-
 tion.
 8.0 : Town Hall chimes.
 Studio concert by the St. Kilda Band, under the conductorship of Mr.
 James Dixon, and assisting artists:
 8.1 : Concert march—Band, "Harlequin" (Rimmer).
 8.7 : Soprano—Miss Rita Holmes, (a) "Nightfall at Sea" (Phillips); (b)
 "Songs My Mother Taught Me" (Dvorak).
 8.12 : J. H. Squire Celeste Octet, "Perpetuum Mobile" (Weber) (Columbia
 02581).
 8.16 : Recital—Mr. Lester Moller, "Colonial Crewitt" (Stanford).
 8.22 : Waltz—Band, "Thoughts" (Alford).
 8.32 : Bass—Mr. T. White, "Will o' the Wisp" (Cherry).
 8.36 : Cornet solo—Band soloist, "Because" (D'Hardelot).
 8.44 : Choir—Associated Glee Clubs of America, "John Peel" (Andrews).
 8.48 : Selection—Band, "Der Freischutz" (Weber).
 9.2 : Weather report.
 9.4 : Wurlitzer organ—Quentin Maclean, "Merchant of Venice" Suite
 (Rosse): 1. Intermezzo; 2. Oriental March (Columbia 02796).
 9.8 : Overture—Band, "If I Were King" (Adam).
 9.18 : Soprano—Miss Rita Holmes, "In the Garden of My Heart" (Ball).
 9.22 : J. H. Squire Celeste Octet, "Valse Caprice" (Rubinstein) (Columbia
 02581).
 9.26 : Recitals—Mr. Lester Moller, (a) "The War Song of the Saracens"
 (Flecken); (b) "Mrs. McGregor at the Movies" (Anon.)
 9.34 : Intermezzo—Band, "Love Bells" (Dorel).
 9.42 : Bass—Mr. T. White, (a) "Yeoman's Wedding Song" (Piantadosi); (b)
 "Young Tom o' Devon" (German).
 9.50 : Wurlitzer organ—Quentin Maclean, "Merchant of Venice" Suite
 (Rosse): Prelude, No 2 (Columbia 02797).
 9.54 : March—Band, "The Traveller" (Allan).
 10.0 : Close down.

Wednesday, October 9**1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, OCTOBER 9.**

- 3.0 : Afternoon session—selected studio items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by Uncle Tom.
 6.0 : Dinner Session—"His Master's Voice" Hour:
 New Light Symphony Orchestra, "Hearts and Flowers" (Tobani)
 (Zonophone Record EF20).
 Pianoforte—Ignace Jan Paderewski, "Minuet Op. 14, No. 1" (Paderew-
 ski) (DA1090).
 Neapolitan Trio, "Happy Days" (EA44).
 6.12 : Tacet.
 6.15 : Philadelphia Symphony Orchestra, "March of the Caucasian Chief"
 (Ippolitov-Ivanov) (E521).
 Organ and vocal—Charles W. Saxby, "Sing Me to Sleep With a Twi-
 light Song" (Gilbert) (Zonophone Record 5123).
 Instrumental—Neapolitan Trio, "Herd Girl's Dream" (EA44).
 6.27 : Tacet.
 6.30 : New Light Symphony Orchestra, "The Glow Worm" (Lincke) (Zono-
 phone Record EF20).
 Black Diamonds Band, "The Last Goodbye" (Moretti) (Zonophone
 Record 5153).
 Detroit Symphony Orchestra, "Spanish Rhapsody" (Chabrier) (E522).
 6.43 : Tacet.
 6.45 : Eighteenth Century Orchestra, "Beggar's Opera" (Gay-Austin) (D699)
 Black Diamonds Band, "The Gypsy Dance" (George) (Zonophone Re-
 cord 5153).
 6.58 : Tacet.
 7.0 : News and market reports.
 7.40 : Talk—Mr. Norman Kerr, "Physical Culture."
 8.0 : Chimes.
 Programme presented by the Auckland Artillery Band, under the con-
 ductorship of Bandmaster Wynne Smith, and assisting artists:

- 8.1 : March—Band, "Washington Grays" (Grafulla).
 Overture—Band, "Light Cavalry" (Suppe).
 8.13 : Contralto—Miss Kay Christie, "The Glory of the Sea" (Sanderson).
 8.17 : Cornet duet—Bandsmen K. Smith and L. Mackay, "Besses o' the Barn" (Currie).
 8.23 : Humour—Mr. T. T. Garland, Moments of Mirth (Original).
 8.29 : Tenor—Mr. J. B. McLean, (a) "I Care Not if the Cup I Hold" (Sullivan); (b) "Two Eyes of Grey" (Leonard).
 8.36 : Humorous selection—Band, "Pop Goes the Weasel" (Hawkins).
 8.43 : Contralto—Miss K. Christie, (a) "Shadow March" (Del Riego); (b) "Love's Old Sweet Song" (Molloy).
 8.50 : Patrol—Band, "Abryian Patrol" (Pridman).
 8.58 : Weather report.
 9.0 : Talk—Mr. T. T. Garland, "A Fireside Chat" (Original).
 9.6 : Selection—Band, "Maid of the Mountains" (Fraser Simson, arrgd. Hume).
 9.16 : Tenor—Mr. J. B. McLean, "I Hear You Calling Me" (Marshall).
 9.20 : Descriptive sketch—Band, "In a Persian Market" (Ketelbey).
 March—Band, "Fighting Mac" (Rimmer).
 9.30 : Review—A Commentator, "Latest H.M.V. Recordings."
 10.0 : Close down.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, OCTOBER 9.

SILENT DAY.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, OCTOBER 9.

- 3.0 : Afternoon session—selected gramophone items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by Mother Hubbard and Uncle Frank.
 6.0 : Dinner Session—"Farlophone Hour":
 Edith Lorand Orchestra, "La Boheme" selection (Puccini), (Farlophone E10558).
 Waltz—Edith Lorand Orchestra, "La Serenade" (Metra) (E10522).
 Violin—Pussy Spiwakowsky, "Turkish March" (Beethoven) (A2561).
 Waltz—Orchestra Mascotte, "Siren Magic" (Waldteufel) (A2650).
 6.14 : Tacet.
 6.15 : Waltz—Edith Lorand Orchestra, "Venetian Barcarolle" (Leoncavallo) (E10522).
 Dajos Bela Trio, (a) "Traumerei" (Schumann); (b) "Chant D'Automne" (Tschalkowsky) (E10573).
 Cello—Gregor Piatigorsky, "The Swan" (Saint-Saens) (A2628).
 Frank Westfield's Orchestra, "Neapolitan Nights" (A2501).
 6.29 : Tacet.
 6.30 : Fantasia—Dajos Bela Orchestra, "La Traviata" (Verdi) (A4027).
 Waltzes—Royal Music Makers, (a) "Kiss Me Again" (Herbert); (b) "Ah, Sweet Mystery of Life" (Herbert) (A2722).
 6.44 : Tacet.
 6.45 : Suite—Paris Opera Comique Orchestra, "Ballet Egyptian" (Luigini) (A2577-8).
 7.0 : News session.
 7.30 : Addington stock market reports.
 8.0 : Chimes.
 8.1 : Overture—Studio Instrumental Octet under the conductorship of Mr. Harold Beck, "Blue Danube" (Strauss).
 8.11 : Soprano—Miss Corrie Aslin, (a) "Prelude—Cycle of Life" (Landon Ronald); (b) "The Star" (Rogers).
 Vocal quartet—Salon Quartet, "Hope Will Banish Sorrow" (Swabean Melody) (Trdtl).
 8.19 : Pianoforte—Miss Dorothy Davies, "Prelude and Fugue in C Sharp Major" (Bach).
 8.25 : Tenor—Mr. H. Blakeley, "An Evening Song" (Blumenthal).
 8.29 : Cello solo with strings and harp accompaniment—Mr. Harold Beck and Studio Instrumental Octet, "O Star of Eve" ("Tannhauser") (Wagner-Beck).
 8.34 : Contralto—Miss Dulcie Mitchell, "Che Faro" ("Orfeo") (Gluck).
 8.38 : Violin and kinema organ—Elsie Southgate, "I Hear You Calling Me" (Marshall) (Zonophone 5109).
 8.41 : Baritone—Mr. J. Graham Young, (a) "The Temple Bells"; (b) "Less Than the Dust" (Woodforde-Finden).
 8.46 : Studio Instrumental Octet, (a) "Gipsy Song" ("Carmen") (Bizet); (b) "Intermezzo" ("Cavalleria Rusticana") (Mascagni); (c) "Waltz of the Flowers" (Tschalkowsky).
 8.55 : Vocal duet—Salona Duo, "Over Here and Over There" ("Maid of the Mountains") (Simpson).
 8.59 : Royal Albert Hall Orchestra, "Carmen—Prelude to Act 1" (Bizet) (H.M.V. E461).
 9.2 : Weather report.
 9.4 : Studio Instrumental Octet, "Faust Ballet Music" (Gounod).
 9.13 : Soprano—Miss Corrie Aslin, "Angus MacDonald" (Roedel).
 9.17 : New Mayfair Orchestra, "Lilac Time" (Schubert-Clutsam) (H.M.V. C1457).
 9.25 : Tenor—Mr. H. Blakeley, "The Land Across the Sea" (Barnard).
 9.29 : Violin and kinema organ—Elsie Southgate, "Rose in the Bud" (Forster) (Zonophone 5109).
 9.32 : Contralto—Miss Dulcie Mitchell, "Over the Mountain" (Quilter).
 9.35 : Vocal duet—Salome Duo, "A Night in Venice" (Lucantoni).
 9.40 : Studio Instrumental Octet, (a) "A Street in Algiers" (Ansell); (b) "In a Japanese Garden" (Ansell); (c) "Grasshoppers' Dance" (Bucalossi).

- 9.50 : Baritone—Mr. J. Graham Young, "A Bachelor Gay" ("Maid of the Mountains") (Simpson).
 Vocal quartet—Salon Quartet, "How Dear to Me the Hour" (Villiers Stanford).
 9.58 : Selection—National Symphony Orchestra, "Aida" (Verdi) (Zonophone A340).
 10.2 : Close down.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, OCTOBER 9.

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 4.25 : Sports results to hand.
 6.0 : Children's session conducted by Aunt Anita.
 7.0 : News session.
 8.0 : Town Hall chimes.
 8.1 : Instrumental—4YA Broadcasting Trio, (a) "Serenade" (Haydn), (b) "Cradle Song" (Schubert).
 8.8 : Vocal quartet—The Serenaders, "Killarney" (Balfe).
 8.12 : Piano solo—Mrs. Ernest Drake, "Turkish March" (Beethoven).
 8.16 : Contralto—Miss Dorothy Allan, (a) "Husheen" (Needham), (b) "Ships that Pass in the Night" (Stephenson).
 8.21 : Violin—Mr. Frank Parsons, "On Wings of Song" (Mendelssohn).
 8.26 : Tenor—Mr. W. Harrison, (a) "Mary O'Neill" (Hardy), (b) "Away in Athlone" (Lohr).
 8.32 : Vocal quartet—The Serenaders, "Home, Sweet Home" (Bishop).
 8.36 : Cello—Mr. P. J. Palmer, "Largo" (Handel).
 8.42 : Soprano—Miss Florence Sumner, "I Dream of a Garden of Sunshine" (Lohr).
 8.45 : Baritone—Mr. R. B. Macdonald, (a) "Time to Go" (Sanderson), (b) "O Western Wind" (Brahe).
 8.49 : Instrumental—4YA Broadcasting Trio, (a) "Slavonic Dance No. 7" (Dvorak), (b) "Song of the Volga Boatmen" (Ambrosio).
 9.0 : Weather report.
 9.2 : Debate—Dunedin Debating and Social Club, "That the Introduction of Machinery has Done More Harm than Good."
 9.30 : "Columbia" Dance Programme:
 Foxtrot—Debroy Somers Band, "Toy Town Artillery" (Frederick) (01306).
 Foxtrot—Paul Ash's Orchestra, "Ten Little Miles from Town" (Kahn) (01315).
 Foxtrot—Royal Canadians, "Caressing You" (Klages) (01483).
 Waltz—Ben Selvin's Orchestra, "Out of the Tempest" (01367).
 9.42 : Vocal duet—Layton and Johnstone, "Dance, Little Lady" (Coward) (01422).
 One-step—Debroy Somers' Band, "Casabianca" (01470).
 Foxtrot—Debroy Somers' Band, "My Coquette" (Berlin) (01471).
 Foxtrot—The Columbians, "Ye Te Amo Meaps 'I Love You'" (Bryan) (01488).
 Foxtrot—Royal Canadians, "Please Let Me Dream in Your Arms" (01488).
 9.57 : Tenor—Richard Neller, "I'm Sorry, Sally" (Kahn) (Regal G20399).
 Foxtrot—Raymond Dance Band, "Why Do I Love You?" (Kern) (Regal G20399).
 Foxtrot—Hal Swain's Band, "Then Came the Dawn" (Regal G20460).
 Waltz—The Columbians, "The Song is Ended" (Berlin) (0952).
 Waltz—Green Brothers' Marimbaphone Orchestra, "Sweet Hawaiian Dream Girl" (Regal G20472).
 10.12 : Baritone—Tom Barratt, "Happy Days and Lonely Nights" (Fisher) (Regal G20457).
 Foxtrot—Debroy Somers' Band, "Happy Days and Lonely Nights" (Fisher) (01495).
 Foxtrot—Ben Selvin's Orchestra, "Redskin" (Zamecnik) (01488).
 Foxtrot—Debroy Somers' Band, "Sarita" (01470).
 Foxtrot—Debroy Somers' Band, "Without You, Sweetheart" (01249).
 Waltz—Flanagan Brothers, "Over the Waves" (Rosas) (Regal G20453).
 10.30 : Wurlitzer organ—Terence Casey, "I'm Lonely" (Comes) (01501).
 Foxtrot—The Columbians, "Me and My Shadow" (0721).
 Foxtrot—Denza Dance Band, "Let's Grow Old Together" (0616).
 Waltz—The Columbians, "Rose of the Lane" (0925).
 Waltz—Green Brothers' Marimbaphone Orchestra, "Sweet Hawaiian Dream Girl" (Regal G20474).
 10.45 : Vocal solo—Will Fyffe, "Down in the Quarry where the Bluebells Grow" (Cairns) (Regal G8681).
 Foxtrot—Debroy Somers' Band, "All by Yourself in the Moonlight" (Wallis) (01432).
 Foxtrot—Ray Starita's Ambassadors, "Truly Rural" (01432).
 Waltz—Denza Dance Band, "Together" (01129).
 Waltz—Ted Lewis's Band, "Good-Night" (01110).
 11.0 : Close down.

Thursday, October 10

1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, OCTOBER 10.

- 3.0 : Afternoon session—programme provided by Messrs. Lewis Eady Ltd.
 5.0 : Children's session, conducted by Peter Pan.
 6.0 : Dinner Session—"Columbia Hour":
 Albert Ketelbey's Concert Orchestra, "The Sacred Hour" (Ketelbey) (01528).

Violin and musical organ—"Eileen Alannah" (Thomas) (Regal Record 8588).

- 6.12: Tacet.
 6.15: Musical Art Quartet, "Mighty Lak' a Rose" (Nevin) (01506).
 Banjo—Vess L. Ossman, "Drowsy Dempsey" (Regal Record G6198).
 Hawaiian—Rose Tribe, "Old Plantation" (01258).
 Ben Selvin's Orchestra, "I Loved You Then as I Love You Now" (01401).
 6.28: Tacet.
 6.30: Southern Players Orchestra, "Echoes of the South" (Regal Record G20101).
 Continental Novelty Quintet, "On Board" (Regal Record 20432).
 6.43: Tacet.
 6.45: Hawaiian—Rose Tribe, "What Aloha Means" (Alphin) (01258).
 Regal Orchestra, "Destiny Waltz" (Baynes) (6056).
 Musical Art Quartet, "To a Wild Rose" (MacDowell) (01506).
 Band of the Royal Air Force, "The Turkish Patrol" (Michaelis) (Regal Record 20479).
 6.57: Tacet.
 7.0: Book review.
 7.15: News and market reports.
 8.0: Chimes.

Presentation of a novelty programme "Still More Scampers With the Radio Scamps."

- 9.30: "Brunswick" Dance Programme:
 Foxtrot—The Clevelanders, "What a Girl! What a Night!" (Smith) (4205).
 Foxtrot—Katzman and Brunswick Orchestra, "My Man" (Pollack) (4213).
 Foxtrot—Stafford's Orchestra, "All A'Twitter" (Whiting) (4250).
 Foxtrot—The Clevelanders, "Honey" (Simons) (4205).
 Waltz—Eight Radio Stars, "The Dream Girl of Pi K.A." (Shields) (4310).
 9.45: Male chorus—Famous Forty Elks Chorus, "Sylvia" (Speaks) (4300).
 Foxtrot—Katzman's and Brunswick Orchestra, "I'd Rather Be Blue With You" (Rose) (4213).
 Foxtrot—Stafford's Orchestra, "I Wanna Go Places and Do Things" (Whiting) (4250).
 Foxtrot—Hotel Roosevelt Orchestra, "Till We Meet" (Davis) (4284).
 Foxtrot—Haring's Orchestra, "A Night in May" (Simon) (4310).
 Waltz—Hotel Roosevelt Orchestra, "Coquette" (Berlin) (4284).
 10.3: Criterion Quartet—"Little Cotton Dolly" (Geibel) (4300).
 Foxtrot—Jungle Band, "Harlem Flat Blues" (4309).
 Foxtrot—Bob Haring's Orchestra, "Louise" (Robin) (4359).
 Foxtrot—Jungle Band, "Paducah" (Redman) (4309).
 Waltz—Johnson's Orchestra, "Was It Love?" (Caesar) (4084).
 Waltz—Joe Rines' Orchestra, "Carolina Moon" (Davis) (4146).
 10.21: Vocal duet—Frank and James McCravy, "Ring Dem Heavenly Bells" (4191).
 Foxtrot—Eight Radio Stars, "My Annapolis" (Weinberg) (4272).
 Foxtrot—Bob Haring's Orchestra, "Some Sweet Day" (Shilkret) (4273).
 Waltz—Regent Club Orchestra, "Dear, When I Met You" (Brown) (4314).
 Waltz—Bob Haring's Orchestra, "Bye and Bye, Sweetheart" (Yellen) (4316).
 10.38: Hawaiian—Randolph's Royal Hawaiians, "Lonely One" (4278).
 Foxtrot—Bob Haring's Orchestra, "My Cairo Love" (Zamecnik) (4316).
 Foxtrot—The Captivators, "I'm Marching Home to You" (Silver) (4308).
 Foxtrot—Colonial Club Orchestra, "Drizzle, Drizzle, the Party's a Fizzle" (4247).
 Waltz—Regent Club Orchestra, "Underneath the Russian Moon" (Kendis) (4314).
 Waltz—Eight Radio Stars, "I Found Happiness" (Rapee) (4272).
 11.0: Close down.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, OCTOBER 10.

- 8.0: Chimes of the G.P.O. clock.
 8.1: Selected gramophone items.
 4.30 and 4.50: Sports results to hand.
 5.0: Children's session conducted by Uncle George.
 6.0: Dinner session—"Columbia" Hour:
 Bournemouth Municipal Orchestra, "Zampa" Overture (Herold) (02816).
 Violin—Sascha Jacobsen, "Poupee Valsante" (Poldini) (0793).
 Organ—Emil Velazco, "A Perfect Day" (Jacobs-Bond) (01332).
 6.14: Tacet.
 6.15: Albert Sandler's Orchestra, (a) "I Kiss Your Hand, Madame" (Erwin), (b) "Chalita" (Schertzing) (01487).
 Violin—Sascha Jacobsen, "At Dawning" (Cadman) (0793).
 Musical Art Quartet, (a) "Mighty Lak' a Rose" (Nevin), (b) "To a Wild Rose" (MacDowell) (01506).
 6.29: Tacet.
 6.30: London Hippodrome Orchestra, "Hit the Deck" (Youmans) (02620).
 Cello—Gaspar Cassado, "Le Cygne" (Saint-Saens) (0359).
 Jean Lensen's Orchestra—"Love, Here is My Heart" (Silues) (01006).
 6.44: Tacet.
 6.45: Royal Hawaiian Band, "Nelele O Hawaii" (King) (01361).
 Organ—Emil Velazco, "By the Waters of Minnetonka" (Lieurance) (01332).

Violin—Sascha Jacobsen, "One Alone" (Romberg) (01123).
 Debroy Somers' Band, "A Hunting Medley" (arrgd Somers) (02332).

- 6.58: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. A. J. Nicholls (Representative Hutt Valley Horticultural Society) ("Gardening").
 8.0: Chimes of the G.P.O. clock.
 Studio Concert by the Wellington City Silver Band, under the conduct orship of Mr. C. A. Forrest, and assisting artists.
 8.1: March—Band, "The Bullfighters" (Kottam).
 Selection—Band, "H.M.S. Pinafore" (Sullivan).
 8.14: Soprano—Miss Veronica Mackenzie, (a) "The Blacksmith" (Brahms); (b) "Where the Bee Sucks" (Sullivan).
 8.19: Baritone—Mr. L. Bent, "Parted" (Tosti).
 8.23: Humour—Angela Baddely and L. de Garde Peach, "Motoring Without Tears" (de Garde Peach), (H.M.V. Record B2813).
 8.29: Cornet solo with band accompaniment, Bandsman McPherson, "The Lost Chord" (Sullivan).
 8.35: Contralto—Miss Agnes McDavitt, "An Old Garden" (Hope Temple).
 8.39: Organ—Frederic Curzon, (a) "For Old Times Sake" (De Sylva); (b) "Sonny Boy" (de Sylva) (Regal Record G20475).
 8.45: Tenor—Mr. Harry Phipps, (a) "Love Was Ever a Fragile Flower" (Griffiths); (b) "Hey Ho! For the Morning" (Marshall).
 8.52: Waltz—Band, "River of Pearls" (Rimmer).
 8.59: Weather report.
 9.1: Lecturette—Mr. Johannes Anderson, "Maori Music."
 9.16: Humoresque—Band, "A Trip to Blackpool" (Raymond).
 9.26: Soprano—Miss Veronica Mackenzie, "Love in Spring" (Gounod).
 9.30: Baritone—Mr. L. Bent, (a) "My Task" (Ashford); (b) "Riding Song" (Speaks).
 9.36: March—Band, "March for Fanfare of Trumpets" (Schofield).
 9.41: Contralto—Miss Agnes McDavitt, (a) "O Western Wind" (Brahe); (b) "The Song of the Little Folk" (Coates).
 9.47: Tenor—Mr. Harry Phipps, "Glorious Devon" (German).
 9.51: Selection—Band, "Knight Errant" (Lithgow).
 March—Band, "Marine Artillery" (Rimmer).
 10.4: Close down.

3YA, CHRISTCHURCH (930 KILOCYCLES)—THURSDAY, OCTOBER 10.

- 3.0: Afternoon session—Selected gramophone items.
 4.25: Sports results to hand.
 5.0: Children's session conducted by Uncle John.
 6.0: Dinner session—"Columbia" Hour:
 Selection—B.B.C. Wireless Symphony Orchestra, "La Boutique Fantastique" (Respighi-Carr) (Regal G30018).
 Cello—W. H. Squire, "Humoresque" (Dunkler—Squire) (04192).
 6.12: Tacet.
 6.15: J. H. Squire Celeste Octet, "Chant Sans Paroles" (Tchaikowsky) (02805).
 Plaza Theatre Orchestra, "Gipsy Suite" (German): (1) Valse—Lonely Life; (2) Allegro—The Dance (02537).
 6.27: Tacet.
 6.30: Plaza Theatre Orchestra, "Gipsy Suite" (German): (1) Menuetto—Love Duet; (2) Tarantella—The Revel (02537).
 Madrid Symphony Orchestra, "Dance of the Neighbours" (De Falla) (02848).
 6.42: Tacet.
 6.45: Venetian Players String Quintet, (a) "Romanza" Mozart; (2) "Allegro" (Mozart) (Regal G20487).
 Pianoforte—Ignaz Friedman, "Romance in E Flat" (Rubinstein) (03630).
 Basle Symphony Orchestra, "Rosamunde Entr'acte" (Schubert) (02875).
 6.57: Tacet.
 7.0: News session.
 7.30: Lecturette—Mr. N. O. D. Alexander (Canterbury Agricultural College), "Scheme of Official Pig-Recording" (arranged by 3YA Primary Productions Committee).
 8.0: Chimes.
 8.1: Overture—National Symphony Orchestra, "Die Fledermaus" (The Bat) (Strauss) (Zonophone EF25).
 8.9: Vocal quartets—Melodious Quartet, (a) "Hail, Orpheus, Hail!" (De Reef), (b) "How Sweet the Moonlight" (Calcott).
 Soprano—Miss Francis Hamerton, "He Is Kind, He Is Good" ("Herodiade"—Massenet).
 8.18: Grand organ—Marcep Dupre, (a) "The Swan" (Saint-Saens), (b) "Prelude in E Flat" (Saint-Saens) (H.M.V. B518).
 8.26: Tenor—Mr. Russell Sumner, "Adelaide" (Beethoven).
 8.30: Vocal duets—Melodious Duo, (a) "Old Winter" (Bainton), (b) "Golden Slumbers" (Rowley).
 8.34: Christchurch String Quartet (1st violin, Mr. Arthur Gordon; 2nd violin, Miss Gladys Vincent; viola, Signor Oddone Savini; cello, Mr. Francis Bate): (a) "Allegro" (Beethoven), (b) "Scherzo" (Beethoven).
 8.45: Bass—Mr. T. D. Williams, "I Am a Roamer" (Mendelssohn).
 8.49: Recital—Miss Ruby Boot, "Christmas Legend" (Sidgwick).
 8.55: Royal Opera Orchestra, "Praeludium" (Jarnfeldt) (H.M.V. B2618).
 8.58: Contralto—Miss Belle Renaut, "Slumber Song of the Madonna" (Head).
 9.2: Weather report.

- 9.4 : Christchurch String Quartet, (a) "Minuetto" (Boccherini), (b) "Marche Militaire" (Schubert).
 9.14: Vocal duet—Yeoman Duo, "Soldiers and Sailors" (Lane Wilson).
 Vocal quartet—Melodious Quartet, "Rose Aylmer" (Fritz Hart).
 9.20: Royal Opera Orchestra, (a) "Berceuse" (Jarnefeldt); (b) "Carmen Ballet No. 1" (Bizet) (H.M.V. B2618 and H.M.V. C1424).
 9.26: Soprano—Miss Frances Hamerton, (a) "The Fairies' Dance" (Head), (b) "A Spring Song" (Bridge).
 Tenor—Mr. Russell Sumner, (a) "Serenade" (Toselli), (b) "Carita" (Maffei).
 9.35: Christchurch String Quartet, "Andante Cantabile," Op. 11 (Tschai-kowsky).
 9.43: Contralto—Miss Benne Renaut, (a) "Earl Bristol's Farewell" (Lidgey), (b) "See, Where My Love a-Maying Goes" (Lidgey).
 9.47: Recital—Miss Ruby Boot, "The Rider at the Gate" (Masefield).
 9.52: Royal Opera Orchestra, "The Sleeping Beauty" (Tschai-kowsky) (H.M.V. C1469).
 9.55: Bass—Mr. T. D. Williams, (a) "The Barefooted Friar" (Sargeant), (b) "The Yeomans Wedding Song" (Poniatowski).
 Vocal quartet—Melodious Quartet, "The Shepherds" (Percival).
 10.1 : Royal Opera Orchestra, "Carmen Ballet" No. 2 (Bizet) (H.M.V. C1424).
 10.5 : Close down.

4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, OCTOBER 10.

SILENT DAY.

Friday, October 11

1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, OCTOBER 11.

- 3.0 : Afternoon session—selected studio items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 4.25: Sports results to hand.
 5.0 : Children's session, conducted by Nod and Aunt Jean.
 6.0 : Dinner Session—"His Master's Voice" Hour:
 London Symphony Orchestra, "Czar Sultan" Suite No. 3 (Rimsky-Korsakov) (D1491).
 'Cello—Lauri Kennedy, "Old Scottish Melody" (C1618).
 6.12: Tacet.
 6.15: Organ—Herbert Dawson, "Prayer and Cradle Song" (Guilmant) (C1258).
 Violin—Fritz Kreisler, "Caprice Viennois" (Kreisler) (DB1091).
 Flonzaley String Quartet, "Scherzo—Quartet in A Minor" (Schumann) (DB249).
 6.27: Tacet.
 6.30: New Light Symphony Orchestra, "Prelude in G Minor" (Rachmanin-off) (Zonophone EF24).
 Organ—Herbert Dawson, "Marche Pontificale" (Widor) (C1258).
 Flonzaley String Quartet—"Andante—Quartet in D Major" (Mozart) (DB249).
 6.42: Tacet.
 6.45: Violin—Fritz Kreisler, "Humoresque" (Dvorak) (DB1091).
 String Sextette—"Romance" (Rubinstein) (Zonophone 5154).
 Philadelphia Symphony Orchestra, "Danse Orientale" (Glazounov) (E521).
 6.57: Tacet.
 7.0 : News and market reports.
 7.40: Talk—Mr. W. G. E. Wheeler, "Esperanto."
 8.0 : Relay from Cambridge of Demonstration Concert in connection with the Cambridge Competitions.
 Close down.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, OCTOBER 11.

- 3.0 : Chimes of the G.P.O. clock.
 3.1 : Selected studio items.
 4.30 and 4.50: Sports results to hand.
 5.0 : Children's session, conducted by Big Brother Jack.
 6.0 : Dinner session—"Parlophone Hour":
 Berlin State Opera House Orchestra, "Mignon" overture (Thomas), (10557).
 Violin—Tosny Spivakowsky, "Turkish March" (Beethoven) (A2561).
 Dajos Bela Orchestra—"Gypsy Love" waltz (Lehar) (A4080).
 6.14: Tacet.
 6.15: Frank Westfield's Orchestra, "Dance of the Hours" ("La Gioconda") (Ponchielli) (A2513).
 Violin—Tosny Spivakowsky, "Dervishes Chorus" (Beethoven) (A2561).
 Dajos Bela Orchestra, "You and You" waltz (Strauss) (A4080).
 6.28: Tacet.
 6.30: Edith Lorand Orchestra, "Cavalleria Rusticana" selection (Mascagni), (10569).
 Dajos Bela Trio, "Ideale" (Tosti) (A4015).
 6.42: Tacet.
 6.45: Frank Westfield's Orchestra, "Nell Gwynn Dances" (German) (A2486-7).
 6.57: Tacet.
 7.0 : News session, market reports and sports results.

- 7.40: Lecturette—Mr. A. Varney (Wellington Cricket Association)—"Cricket."
 8.0 : Chimes of the G.P.O. clock.
 Programme featuring excerpts from "The Rebel Maid" (Montague Phillips) presented by the Philharmonic Quartet.
 8.1 : Overture—Orchestra, "The Rebel Maid" selection (Phillips).
 8.9 : Soprano—Miss Ena Rapley, "Sail, My Ships" ("The Rebel Maid") (Phillips).
 8.13: Baritone—Mr. Arthur Brady, "The Fishermen of England" ("The Rebel Maid") (Phillips).
 8.17: Pianoforte—Miss Pauline Rodgers, (a) "Prelude in C Sharp Minor" (Rachmaninoff); (b) "Melodie" Op. 28, No. 3 (Paderewski).
 8.26: Recital—Mr. Errol Muir, "Home Sweet Home" (Brewer).
 8.33: Instrumental—Orchestra, "My Lady Frayle" (Finck).
 8.41: Vocal duet—Messrs. Edwin Dennis and Arthur Brady, "Ho, Ho, Diddle Dum" ("The Rebel Maid") (Phillips).
 8.45: 'Cello—W. H. Squire, "Scherzo" (Harty) (Columbia Record 04214).
 8.49: Contralto—Miss Madge Freeman, "I Want My Man" ("The Rebel Maid") (Phillips).
 8.53: Selection—Orchestra, "Rigoletto" (Roberts).
 9.1 : Weather report.
 9.3 : Soprano—Miss Ena Rapley, "Are My Lanterns Shining Brightly?" (Phillips).
 9.7 : Vocal duet—Misses Ena Rapley and Madge Freeman, "Serving Maids" ("The Rebel Maid") (Phillips).
 9.11: Dance Suite—Orchestra, "Three Spanish Dances" (Moszkowski).
 9.19: Vocal quartet—Philharmonic Quartet, "Shepherdess and Beau Bracade" ("The Rebel Maid") (Phillips).
 9.23: Humour—Mr. Errol Muir, "Bertram at the Bachelor's Club" (Ruth-Rutherford).
 9.30: Instrumental Band de la Garde Republicaine, "Carmen—Entr'acte" (Bizet) (Columbia Record 02747).
 9.38: Tenor—Mr. Edwin Dennis, "O Vision Entrancing" ("Esmeralda") (Goring Thomas).
 9.42: Contralto—Miss Madge Freeman, "So This is Woman's Lot" ("Carmen") (Bizet).
 9.46: 'Cello—W. H. Squire, "Album Leaf—Russian Serenade" (Gliere) (Columbia Record 04214).
 9.50: Baritone—Mr. Arthur Brady, "The Yeomen of England" ("Merrie England") (German).
 9.54: Selection—Orchestra, "Bohemian Girl" (Balfe).
 10.2 : Close down.

3YA, CHRISTCHURCH (930 KILOCYCLES)—FRIDAY, OCTOBER 11.

- 3.0 : Afternoon session—Selected studio items.
 4.25: Sports results to hand.
 5.0 : Children's session conducted by "Storyman."
 6.0 : Dinner session—"Columbia" Hour:
 Symphony Orchestra, "Artist's Life" Waltz (Strauss) (02577).
 Columbia Symphony Orchestra, "Al Fresco" (Herbert) (01092).
 Foxtrot—La Nuova Orchestra, "Di Napoli" (Romani) (3066).
 H.M. Grenadier Guards Band, "La Paloma" (Yradier) (0987).
 6.13: Tacet.
 6.15: Ketelbey Orchestra, "In a Monastery Garden" (Ketelbey) (02688).
 Waltz—Jacque Jacobs Ensemble, "Over the Waves" (Rosas) (02556).
 6.27: Tacet.
 6.30: Columbia Symphony Orchestra, "Bandinage" (Herbert) (01092).
 Waltz—Royal Serbian Tambouritzza Orchestra, "Kosovo" (3066).
 Symphony Orchestra, "Tales from the Vienna Woods" (Strauss) (02577).
 H.M. Grenadier Guards Band, "Twist and Twirl" (Kottaun) (0987).
 6.43: Tacet.
 6.45: Waltz—Royal Philharmonic Orchestra, "Blue Danube" (Strauss) (04169).
 Waltz—Jacque Jacobs Ensemble, "Espana" (Waldteufel) (02560).
 6.57: Tacet.
 7.0 : News session.
 8.0 : Chimes.
 8.1 : Studio Instrumental Octet under the conductorship of Mr. Harold Beck, "Three Dances from Henry VIII." (German): (1) Morris Dance; (2) Shepherd's Dance; (3) Torch Dance.
 8.11: Baritone—Mr. J. Francis Jones, "Will o' the Wisp" (Cherry).
 8.15: Mirth and melody, The Chatterboxes, (a) Sketch, "The Cure" (French), (b) Song, "Ukulele Dream Girl" (Lowe), (c) Sketch, "The Recruit" (MS.).
 8.35: Musical comedy selection—Studio Instrumental Octet, "Sally" (Kern).
 8.45: Baritone—Mr. J. Francis Jones, (a) "When I Awake" (Wright), (b) "Four by the Clock" (Mallinson).
 8.51: Studio Instrumental Octet, (a) "Andante" (Lemare), (b) "Czardas" (Delibes).
 9.1: Weather report.
 9.3 : Vocal trio—Dalhart, Robison, and Hood, "Climbin' Up de Golden Stairs" (arrgd. Hood) (H.M.V. EA382).
 9.6 : Studio Instrumental Octet, (a) "Broadway Melody" (Brown), (b) "Wedding of the Painted Doll" (Brown), (c) "Sentimental Swanee" (Nussbaum).
 9.16: Mirth and melody—The Chatterboxes, (a) Sketch, "The Difference" (French), (b) Song, "I Love My Jean" (Lauder), (c) Sketch, "Cohen Pones for a Phone" (Hayman).
 9.36: "Brunswick" Dance Programme:
 Foxtrot—Red Nicholls and his Five Pennies, "Who's Sorry Now?" (Kalmar) (4243).

- Foxtrot—Beinville Roof Orchestra, "High Society" (4181).
 Foxtrot—Red Nicholls and his Five Pennies, "I Never Knew" (Kahn) (4243).
 Waltz—Regent Club Orchestra, "Marie" (Berlin) (4257).
 Waltz—Thematics Orchestra, "Lady Divine" (Kountz) (4297).
 9.51: Vocal solo—Al Bernard, "Bill Bailey, Won't You Please Come Home?" (Cannon) (312).
 Foxtrot—Ray Miller's Orchestra, "No One in the World but You" (Robison) (4194).
 Foxtrot—Brunswick Orchestra, "I'd Rather be Blue Over You" (Rose) (4213).
 Waltz—Regent Club Orchestra, "Where is the Song of Songs for Me?" (Berlin) (4257).
 Waltz—Thematics Orchestra, "Giovanna" (Kountz) (4297).
 10.6: Vocal—Al Bernard, "The Preacher and the Bear" (Arzonis) (312).
 Foxtrot—Hotel Roosevelt Orchestra, "I've Got a Feeling I'm Falling" (Rose) (4315).
 Foxtrot—Brunswick Orchestra, "My Man" (Pollack) (4213).
 Waltz—Hotel Roosevelt Orchestra, "Coquette" (Berlin) (4284).
 Waltz—Copley Plaza Orchestra, "Pagan Love Song" (Freed) (4321).
 10.21: Vocal duet—Frank Luther and Carson Robison, "Wednesday Night" Waltz (Williams) (297).
 Foxtrot—Gerunovich's Roof Garden Orchestra, "Stairway of Dreams" (Stone) (4277).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Do You Ever Think of Me?" (Burnett) (4217).
 Waltz—Copley Plaza Orchestra, "Dream Boat" (Henry) (4288).
 Waltz—Regent Club Orchestra, "Dear, When I Met You" (Brown) (4314).
 10.36: Tenor—William O'Neal, "Softly as in a Morning Sunrise" (Romberg) (4208).
 Foxtrot—Gerunovich's Roof Garden Orchestra, "That's the Good Old Sunny South" (Ager) (4277).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Ploddin' Along" (Caminando) (4217).
 Waltz—Al Hopkins' Buckle-Busters, "Marosovia Waltz" (Belcher) (321).
 Waltz—Regent Club Orchestra, "My Dear" (Kahn) (4370).
 10.51: Tenor—William O'Neal, "Stout-Hearted men" (Romberg) (4208).
 Waltz—Eight Radio Stars, "I Found Happiness" (Rapee) (4272).
 Waltz—Regent Club Orchestra, "Sleepy Valley" (Sterling) (4370).
 11.0: Close down.

4YA DUNEDIN (650 KILOCYCLES).—FRIDAY, OCTOBER 11.

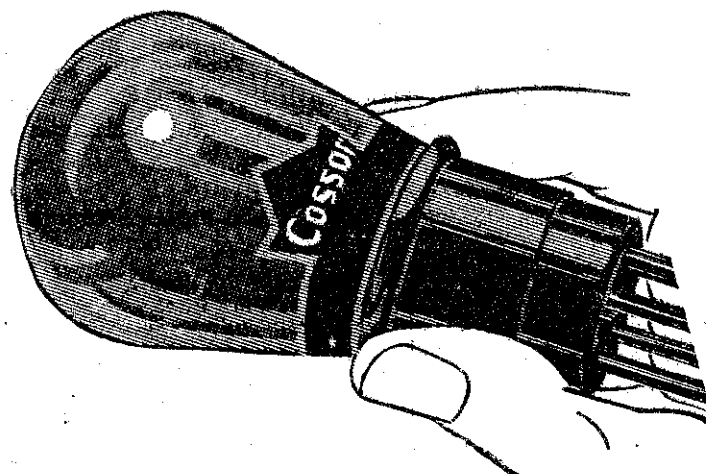
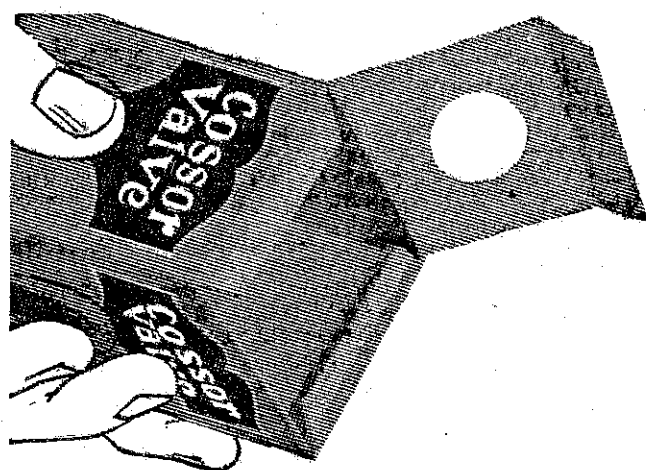
- 3.0: Town Hall chimes.
 3.1: Selected gramophone items.
 3.15: Fashion lecture by Miss Buccleuch, of the D.S.A., Ltd.
 3.30: Studio items.
 4.25: Sports results to hand.
 6.0: Children's session, conducted by Aunt Shella.
 7.0: News session.
 8.0: Town Hall chimes.
 8.1: Overture—Marek Weber's Orchestra, "Vienna by Night" (Komzak) (H.M.V. C1507).
 8.9: Contralto—Miss Margaret Howden, "Will He Come?" (Sullivan).
 8.13: Violin—Mr. Frank Parsons, "Humoresque" (Dvorak).
 8.16: Baritone—Mr. W. Ruffell, "On Wings of Song" (Mendelssohn).
 8.22: Mezzo-soprano—Miss Winnie Collier, "Morning" (Speaks).
 8.26: Instrumental—4YA Broadcasting Trio, "Spanish Dances" Nos. 1 and 2 (Moszkowski).
 8.33: Recital—Miss Joyce Hould, "The Dwarf's Tragedy" (Noyes).
 8.43: Chorus—Ever-ready Hour Group, "Goin' Home" (Fisher) (Zonophone EF8).
 8.47: Pianoforte—Mrs. Ernest Drake, "Liebestraume" No. 3 (Liszt).
 8.52: Tenor—Mr. Allan Mitchell, "The Temple Bells" (Woodforde-Finden).
 8.55: Victor Symphony Orchestra, "Dance of the Hours" (Ponchielli).
 9.3: Weather report.
 9.5: Contralto—Miss Margaret Howden, (a) "Country Folk" (Brahe); (b) "Spinning Wheel" (Lees).
 9.10: Instrumental—4YA Broadcasting Trio, (a) "Andante Cantabile" (Tschaiikowsky); (b) "Berceuse" (Cui); (c) "Gopak."
 9.21: Mezzo-soprano—Miss Winnie Collier, (a) "Break o' Day" (Boosey); (b) "Sincerity" (Clark).
 9.26: March—Band of the Garde Republicaine, "Sambre et Meuse" (H.M.V. EA450).
 9.30: Baritone—Mr. W. Ruffell, (a) "Home Along" (Weatherley); (b) "Elegie" (Massenet).
 9.36: Cello—Mr. P. J. Palmer, "Danse Orientale" (Squire).
 9.41: Monologues—Miss Joyce Hould, (a) "The Little Bottom Drawer" (Valentine); (b) "Bredon Hill" (Housman).
 9.48: Organ—Reginald Foort, "A Brown Bird Singing" (Haydn-Wood) (H.M.V. B2664).
 9.51: Tenor—Mr. Allan Mitchell, (a) "Kashmiri Song" (Woodforde-Finden); (b) "Still as the Night" (Bohm).
 9.58: Selection—Symphony Orchestra, "L'Amour Sorcier" (Love, the Magician) (De Falla) (H.M.V. D1453).
 10.2: Close down.

Saturday, October 12

1YA, AUCKLAND (900 KILOCYCLES).—SATURDAY, OCTOBER 12.

- 3.0: Afternoon session—selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Studio items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Cinderella.
 6.0: Dinner session—"Columbia Hour":
 White House Orchestra, "Iolanthe" Selection (Sullivan) (Regal 20166).
 Columbia Symphony Orchestra—"Barcarolle" ("Tales of Hoffman") (Offenbach) (01355).
 6.13: Tacet.
 6.15: Band of the Royal Air Force, "The Wee Macgregor" Patrol (Amers) (Regal G20479).
 Continental Novelty Quintet, "Sunlight" (Regal G20432).
 Organ—Leslie James, "Lily of Laguna" (Stuart) (B2902).
 Hawaiian—Jack Helehuhe and Kaimana Quartet, "Kuu Iini" (King) (01261).
 6.28: Tacet.
 6.30: Silver Stars Band, "Sanderson's Popular Songs" Selection (Regal 8566).
 Violin—Yvonne Curti, "Madrigale" (Simonetti) (01529).
 6.42: Tacet.
 6.45: Al Starita and Piccadilly Band, "Try to Learn to Love" (Coward) (01420).
 Banjo and guitar—Truett and George, "Chloe" (Moret) (Regal G20297).
 Hawaiian—Bina Mossman's Glee Club, "Kuu Kei Mokihana" (King) (01261).
 Regimental Band of H.M. Grenadier Guards, "Old Panama" (Alford) (01535).
 6.57: Tacet.
 7.0: News and market reports.
 7.40: Talk—Mr. A. E. McMahon, "Dahlias."
 8.0: Chimes.
 8.1: Overture—Orchestra, "If I Were King" (Adam).
 8.10: Baritone—Mr. Frank Sutherland, "Mendin' Roadways" (Coates).
 8.14: Irish dance music—(a) O'Leary's Irish Minstrels, "Turkey in the Straw"; (b) Accordeon solo by Jerry O'Brien, "Little Judy" (Regal 20454).
 8.20: Recitals—Miss Nina Scott, (a) "Too Late, Too Late" (Anon); (b) "Do You Remember?" (Cheyney).
 8.27: Ingall's Hawaiian Orchestra, (a) "Song to Hawaii" (MS.); (b) "Repas Band March" (Sweeley).
 8.35: Novelty—Bohemian Duo, (a) "Blue Hawaii" (Morgan); (b) "Happy Days and Lonely Nights" (Reed).
 8.43: Instrumental—Studio Orchestra, "Four American Indian Songs" (Wakefield Cadman): (1) From the Land of the Sky-Blue Water; (2) The White Dawn is Stealing; (3) Far Off I Hear a Lover's Flute; (4) The Moon Drops Low.
 8.53: Humour—William McCulloch, "The Presentation of Prizes" (MacLennan) (Columbia 02793).
 9.1: Weather report.
 9.3: Ingall's Hawaiian Orchestra, (a) "Pua Carnation" (Kawai); (b) "Aloha Sunset Land" (Kaweno).
 9.11: Baritone—Mr. F. Sutherland, (a) "Listenin'" (Wood); (b) "Cavaller" (Hickey).
 9.18: Studio Orchestra, "Southern Wedding" (Lotter).
 9.26: Whispering baritone—Little Jack Little, "Ev'rybody Loves You" (Little and Dubin) (Columbia 01362).
 9.30: Ingall's Hawaiian Orchestra, (a) "Maori Slumber Song" (Te Rangipai); (b) "Hawaiian Echoes" (MS.).
 9.37: Monologue—Miss N. Scott, "Supplanted" (Hayes).
 9.41: Xylophone—Rudy Starita, "Minuet" (Paderewski) (Columbia 01343).
 9.44: Novelty—Bohemian Duo, (a) "Ol' Man River" (Coward); (b) "Carry Me Back to Old Virginny" (Bland).
 9.51: Selection—Studio Orchestra, "Plymouth Hoe" (Ansell).
 10.0: "Columbia" Dance Programme:
 Foxtrot—Ted Wallace's Campus Boys, "Mean to Me" (Turk) (01514).
 Foxtrot—Ben Selvin's Orchestra, "He, She, and Me" (Newman) (01489).
 Foxtrot—Leo Reisman's Orchestra, "Kiddies' Cabaret" (Sizemore) (01497).
 Foxtrot—Gil Dech's Syncopators, "My Mammy" (Lewis) (01520).
 10.12: Baritone—Fred Douglas, "Shinaniki Da" (Carlton) (Regal G2P432).
 Foxtrot—Ted Wallace's Campus Boys, "The One that I Love Loves Me" (01514).
 Foxtrot—Jan Garber's Orchestra, "Guess Who" (Davison) (01489).
 Foxtrot—Thelma Terry and her Play Boys, "When Sweet Susie Goes Steppin' By" (01403).
 Waltz—Ted Lewis's Band, "When the Curtain Comes Down" (01440).
 Waltz—Green Brothers' Marimba Orchestra, "Underneath the Blue Hawaiian Skies" (Regal G20474).
 10.30: Vocal duet—Layton and Johnstone, "A Room with a View" (Coward) (01422).
 Foxtrot—Ted Lewis's Band, "Glad Rag Doll" (01440).

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- Foxtrot—Leo Reisman's Orchestra, "The Wedding of the Painted Doll" (Brown) (01497).
 Waltz—Green Brothers' Orchestra, "Sweet Hawaiian Dream Girl" (Regal G20474).
 Waltz—Gil Dech's Syncopators, "I'll Always be in Love with You" (Ruby) (01520).
 10.45: Vocal duet—Layton and Johnstone, "Dance, Little Lady" (Coward) (01422).
 Foxtrot—Will Pryor's Band, "Old-Fashioned Rose" (Hood) (01518).
 Foxtrot—Stellar Dance Band, "If I Had You" (Shapiro) (Regal G20456).
 Foxtrot—Will Pryor's Band, "I Faw Down an' Go Boom!" (Brockman) (01518).
 Waltz—Paul Whiteman's Orchestra, "My Angeline" (07020).
 11.0 : Close down.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, OCTOBER 12.

- 3.0 : Chimes of the G.P.O. clock.
 3.1 : Selected gramophone items.
 4.30 and 4.50 : Sports results to hand.
 5.0 : Children's session, conducted by Uncle Toby and Aunt Gwen.
 6.0 : Dinner session—"His Master's Voice Hour":
 Jack Hylton's Orchestra, "Melodious Memories" (Finck) (H.M.V. C1575).
 Banjo—Mario de Pietro, "Frivolous Joe" (B2820).
 Black Diamonds Band, "In a Clockmaker's Shop" (Orth) (Zonophone 5274).
 6.14 : Tacet.
 6.15 : New Mayfair Orchestra, "This Year of Grace" (Coward) (EB37).
 Organ—Jesse Crawford, "When the Summer is Gone" (Harrison-Wilbitt) (EA521).
 6.26 : Jack Hylton's Orchestra, "When the White Elder Tree Blooms Again" (Doelle) (C1616).
 Mandolin—Mario de Pietro, "Concert Mazurka" (B2820).
 Black Diamonds Band, "The Whistler and His Dog" (Pryor) (Zonophone 5274).
 International Novelty Quartet, "Cuckoo Waltz" (Zonophone 5002).
 6.43 : Tacet.
 6.45 : New Mayfair Orchestra, "Show Boat" (Kern) (C1513).
 International Concert Orchestra, "My Treasures" (Becuci) (Zonophone EF15).
 6.57 : Tacet.
 7.0 : News session, market reports and sports results.
 7.40 : Lecturette—Mr. Walter F. Dudson, "Dietitian and Physical Culturist, 'The Colon'."
 8.0 : Chimes of the G.P.O. clock.
 8.1 : Overture—Orchestra, "Minstrellesque Minglings" (Voelker).
 8.9 : Vocal quartet—Melodie Four, "While I Have You" (Tosti).
 8.13 : Steel guitar duo—Messrs. Berthold and Bent, (a) "Marie" (Berlin); (b) "So Blue" (de Sylva).
 8.20 : Bass—Mr. W. W. Marshall, "Gypsy Dan" (Russell).
 8.24 : Xylophone solo with orchestral accompaniment, "William Tell" (Rossini).
 8.30 : Entertainer at piano—Mr. Barry Middleton, (a) "Musicians and How They Musich" (MS.); (b) "How to Write a Ragtime Song" (MS.).
 8.37 : Tenor—Mr. Sam Duncan, "Then You'll Remember Me" (Balfe).
 8.41 : Accordion—Pietro, "Tres Jolie Waltz" (Waldteufel) (Zonophone EE157).
 8.44 : Baritone—Mr. R. S. Allwright, "The Bedouin's Love Song" (Pinsuti).
 8.48 : Soprano—Miss Adele Taylor, "Orpheus with his Lute" (Sullivan).
 8.52 : Instrumental—Orchestra, request number.
 9.0 : Weather report.
 9.2 : Vocal quartet—Melodie Four, "Fishing" (Parkes).
 9.6 : Steel guitar duo—Messrs. Berthold and Bent, (a) "Carolina Moon" (Davis); (b) "Let Us Waltz" (MS.).
 9.13 : Tenor—Mr. Frank Bryant, (a) "The Little Old Garden" (Monckton); (b) "Mighty Lak a Rose" (Nevin).
 9.20 : Instrumental—Orchestra, (a) "Toy Drum Major" (Nicholls); (b) "Rhapsodie Russe" (Nussbaum).
 9.28 : Entertainer—Mr. Barry Middleton, (a) "The Woman Hater" (Clem Dawe); (b) "The Gibson Girl" March (banjo solo) (Earle).
 9.35 : Soprano—Miss Adele Taylor, (a) "Have You Forgotten Yvonne?" (Valentine); (b) "A Precious Little Thing Called Love" (Davis).
 9.42 : Accordion—Pietro, "La Petite Tonkinoise" One-step (Scottie—Christine) (Zonophone EE157).
 9.45 : Vocal quartet—Melodie Four, request number.
 9.49 : Instrumental—Orchestra, "Dance Novelties."
 10.0 : "Columbia" Dance Programme:
 Foxtrot—Ipana Troubadours, "Building a Nest for Mary" (Greer) (01617).
 Foxtrot—The Knickerbockers, "Who Wouldn't Be Jealous of You?" (Shay) (5402).
 Waltz—The Columbians, "Christina" (Gottler) (01585).
 Waltz—The Cavaliers, "Lady Divine" (Shilkret) (5402).
 10.12 : Mouth organ solo—P. C. Hopkinson, "Irish Airs" (Traditional) (5410).
 Foxtrot—Ipana Troubadours, "I Used to Love Her in the Moonlight" (Florito) (01617).
 Foxtrot—Roy Starita's Ambassadors, "Wake Up, Chillun, Wake Up" (Trent) (01595).

- Waltz—Bar Harbour Society Orchestra, "Celia" (Whiting) (Regal G20511).
 Waltz—Piccadilly Players, "Lisette" (Major) (01568).
 10.27 : Tenor—James Egan, "Little Annie Rooney" (Nolan) (Regal G20346).
 Foxtrot—Paul Whiteman's Orchestra, "Seventh Heaven" (de Sylva) (07023).
 Foxtrot—Piccadilly Players, "Bogey Wail" (Wallace) (01567).
 Waltz—Cavaliers, "My Dear" (Kahn) (01646).
 Waltz—The Columbians, "Pagan Love Song" (Brown) (01585).
 10.42 : Mouth organ solo—P. C. Hopkinson, "Scottish Airs" (Traditional) (5410).
 10.45 : Sporting summary.
 11.0 : Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, OCTOBER 12.

- 3.0 : Afternoon session—selected gramophone items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by Aunt Pat and Brother Bill.
 6.0 : Dinner session:
 Debroy Somers' Band, "The Desert Song" Selection (Romberg) (Columbia 02700).
 Waltz—Eddie Thomas' Collegians, "Moments With You" (Shilkret) (Columbia 01135).
 Mandolin band—"Turn to Surriento" (De Curtis) (Columbia 01210).
 6.12 : Tacet.
 6.15 : International Concert Orchestra, (a) "Over the Waves" Waltz (Rosas); (b) "Danube Waves" (Ivanovici) (Zonophone EF3).
 Hilo Hawaiian Orchestra, (a) "Kawaihan Waltz" (Kealakai); (b) "My Hula Love" (H.M.V. D2799).
 6.27 : Tacet.
 6.30 : Wurlitzer organ—"Merchant of Venice" Suite (Rosse): 1. Prelude; 2. Intermezzo; 3. Oriental March (Columbia 02796).
 Mandolin band—"Stephanie Gavotte" (Czibulka) (Columbia 01210).
 Saxophone—Rudy Wiedoeft, "Serenade" (Drigo) (Columbia 01180).
 6.42 : Tacet.
 6.45 : International Concert Orchestra, "Gipsy Love" Waltz (Lehar) (Zonophone EF17).
 New Light Symphony Orchestra, (a) "Baccharolle" (Offenbach); (b) "Intermezzo" (Mascagni) (H.M.V. B2377).
 Waltz—International Concert Orchestra, "Sweetheart" (Strauss) (Zonophone EF17).
 6.59 : Tacet.
 7.0 : News session.
 7.30 : Sports results.
 8.0 : Chimes
 Programme of old-time songs, recitations, dances, and memories:
 8.1 : New Light Symphony Orchestra, (a) "Hearts and Flowers" (Tobani); (b) "Narcissus" (Nevin) (Zonophone EF20 and EE11).
 8.8 : Baritone—Mr. Bernard Rennell, (a) "The Yeoman's Wedding Song" (Poniatowski); (b) "Kathleen Mavourneen" (Crouch).
 8.15 : English concertina duets—Messrs. Theo and Francis Gunther, (a) "Sweet Chiming Bells" (Shattuck); (b) "The Old Folks at Home" (Foster).
 8.22 : Contralto solos with chorus—Mrs. D. W. Stallard, (a) "Silver Threads Among the Gold" (Danks); (b) "My Old Kentucky Home" (Foster).
 8.30 : Recital—Mr. Hiram Dunford, "Betsy and I Are Out" (The Quarrel) (Will Carlton).
 8.38 : Waltz—Edith Lorand Orchestra, "Myosotis" (Waldteufel) (Parlophone E10513).
 8.42 : Tenor—Mr. L. C. Quane, (a) "Alice, Where art Thou?" (Ascher); (b) "Mary of Argyle" (Nelson).
 8.49 : Scottish song and story—Mr. Jock Lockhart, Old-time memories of song and story, introducing "Mrs. Henry Hawkins" and "I Love a Lassie" (Lauder).
 8.56 : Medley—Eddie Jordan and his Old-fashioned Boys, "Yip-I-Addy-I Ay" and "Yankee Doodle Medley" (Brunswick 4387).
 8.59 : Weather report.
 9.1 : Baritone and chorus—Mr. Bernard Rennell, "In the Shade of the Old Apple Tree" (Val Alstyne).
 9.8 : Concertina duet—Messrs. Theo. and Frances Gunther, "Rendezvous" (Aletter).
 9.12 : Contralto—Mrs. D. W. Stallard, "The Old Rustic Bridge by the Mill" (Kelley).
 9.16 : Chorus—Sheffield Orpheus Male Choir, "There Is a Tavern in the Town" (trad.) (Columbia 01175).
 9.19 : Waltz—Williams Dance Orchestra, "Merry Widow" (Lehar).
 9.14 : Tenor—Mr. L. C. Quane, "Sally in Our Alley" (Carey).
 9.28 : Scottische—Williams Dance Orchestra, "Whistling Jim" (Lindsay).
 9.33 : Recital—Mr. Hiram Dunford, "How Betsy and I Made Up" (Reconciliation) (Will Carlton).
 9.38 : Lancers—Williams Dance Orchestra, "Deoch and Doris" (Baynes).
 9.53 : Scottish song and story—Mr. Jock Lockhart, more old-time memories in song and story, including "We Parted on the Shore" (arr. Lockhart).
 9.58 : Williams Dance Orchestra will continue until 11 p.m. in the following old-time dances and square sets, as danced in the 19th century:
 Mazurka—"Birds of Love" (Ascher).

Fascination Polka—"Bicycle" (Aniebas).
 Quadrilles—"Harry Lauder's Songs" (arrgd Kaps).
 Barn dance—"I Would Still Love You" (Murphy).
 Highland Schottische—"Inverness" (Mackie).
 Alberts—"Our Miss Gibbs" (Higgs).
 Military Two-step—"Lights Out" (McCoy).

11.0 : Close down.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, OCTOBER 12.

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 4.25 : Sports results to hand.
 6.0 : Children's session conducted by Uncle George.
 7.0 : News session.
 8.0 : Relay of 3YA, Christchurch (Programme of Old-Time Songs and Recitations, Dances, and Memories).
 10.0 : "Brunswick" Dance Programme:
 Foxtrot—Brunswick Orchestra, "I'd Rather be Blue with You" (Rose) (4213).
 Foxtrot—The Clevelanders, "Honey" (Simons) (4205).
 Foxtrot—Brunswick Orchestra, "My Man" (Pollack) (4213).
 Foxtrot—The Clevelanders, "What a Girl! What a Night!" (Sanders) (4205).
 10.12 : Tenor—Irving Kaufman, "If I Had You" (Connelly) (Regal G20438).
 Foxtrot—Ray Miller's Orchestra, "Cradle of Love" (4233).
 Foxtrot—Colonial Club Orchestra, "O What a Night to Love" (Herbert) (4247).
 Foxtrot—Stafford's Orchestra, "All a-Twitter" (Whiting) (4250).
 Foxtrot—Colonial Club Orchestra, "There's a Four-Leaf Clover in My Pocket" (Colwell) (4247).
 Waltz—Ray Miller's Orchestra, "My Angeline" (Wayne) (4233).
 10.30 : Baritone—Fred Douglas, "Old Man Sunshine" (Warren) (Regal G20461).
 Foxtrot—Stafford's Orchestra, "I Wanna Go Places and Do Things" (Whiting) (4250).
 Foxtrot—The Clevelanders, "A Little Town Called Home, Sweet Home" (Donaldson) (4252).
 Foxtrot—Eight Radio Stars, "My Annapolis" (Weinberg) (4272).
 Foxtrot—The Clevelanders, "I'm Thirsty for Kisses, Hungry for Love" (Davis) (4252).
 Waltz—Eight Radio Stars, "I Found Happiness" (Rapee) (4272).
 10.48 : Comedienne—Zelma O'Neil, "Can't Help Lovin' dat Man" (Kern) (3874).
 Waltz—Hotel Roosevelt Orchestra, "Coquette" (Berlin) (4284).
 Foxtrot—The Captivators, "I Used to Love Her in the Moonlight" (Lewis) (4308).
 Foxtrot—Hotel Roosevelt Orchestra, "Till We Meet" (Davis) (4284).
 Foxtrot—The Captivators, "I'm Marching Home to You" (Silver) (4308).
 11.0 : Close down.

- 7.0 : Relay of service from Taranaki Street Methodist Church: Preacher, Rev. T. R. Richards. Organist and Choirmaster, Mr. H. Temple White.
 8.15 : (approx.): Studio concert by the Port Nicholson Silver Band, under the conductorship of Mr. J. J. Drew, and assisting artists:
 Hymn—Band "Nearer My God to Thee" (arrgd. Scotney).
 Overture—Band, "Les Dragon de Villiers" (Maillart).
 8.27 : Soprano—Miss Isabel Cooper, (a) "A Castilian Lament" (Del Riego); (b) "That's All" (Brahe).
 8.34 : Baritone—Mr. Claude O'Hagan, "Tommy Lad" (Margetson).
 8.38 : Cornet solo with band accompaniment—Bandsman W. G. Stevenson, "Shylock" (Lear).
 8.43 : Contralto—Miss Hilda Chudley, Negro Spirituals, (a) "Steal Away"; (b) "By an' By" (arrgd Burleigh).
 8.49 : Tenor—Mr. Oliver Foote, "The Trumpeter" (Dix).
 8.53 : Intermezzo—Band, "Laughing Marionette" (Collins).
 8.59 : Weather report.
 9.1 : Soprano—Miss Isabel Cooper, (a) "Slave Song" (Riego); (b) "I Hear a Thrush at Eve" (Cadman).
 9.8 : Baritone—Mr. Claude O'Hagan, (a) "Roses" (Adams); (b) "Youth" (Allitsen).
 9.15 : Grand selection—Band, "Rossini's Works" (arrgd. Owen).
 9.35 : Contralto—Miss Hilda Chudley, "Homeward to You" (Coates).
 9.39 : Violin with organ—De Groot and Terence Casey, (a) "Cavatina" (Raff); (b) "Parted" (Tosti) (H.M.V. B2920).
 9.45 : Tenor—Mr. Oliver Foote, (a) "Macushla" (McMurrrough); (b) "When I Awake" (Wright).
 9.51 : March—Band, "O.H.M.S." (Thompson).
 9.55 : Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, OCTOBER 13.

- 8.0 : Afternoon session—selected studio items.
 5.30 : Children's song service—Children of the Presbyterian Sunday Schools.
 6.15 : Hymn chimes from Studio.
 6.30 : Studio programme:
 Instrumental—Studio Trio, (a) "Serenade" (Clough-Leighton); (b) "Berceuse" (Godard); (c) "Polonaise in A" (Chopin).
 6.43 : Grand organ and trumpet—Paul Mania, "Meditation—Vision de Jeanne D'Arc" (Gounod) (Parlophone A4051).
 6.47 : Edith Lorand Orchestra, (a) "Prelude Op. 3. No. 1" (Rachmaninoff); (b) "Liebesfeier" (Weingartner) (Parlophone E10590).
 6.55 : Grand organ and trumpet—Paul Mania, "Hallelujah Chorus" ("Messiah") (Handel) (Parlophone A4051).
 7.0 : Relay of service from St Andrew's Presbyterian Church. Preacher, Rev. J. C. Young, B.A., of Leeston. Musical Director, Mr. J. Maclean. Organist, Mr. Robt. Lake.
 8.15 : (Approx.). Rebroadcast of 2YA, Wellington (relay from the Grand Opera House, Wellington, of recital by the Port Nicholson Silver Band, under the conductorship of Mr. J. J. Drew).
 Close down.

4YA, DUNEDIN (980 KILOCYCLES)—SUNDAY, OCTOBER 13.

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 4.30 : Close down.
 5.30 : Children's song service conducted by Big Brother Bill.
 6.30 : Relay of service from St. John's Anglican Church, Highgate, Roslyn (Preacher, Archdeacon Fitchett).
 8.5 : Studio concert.
 9.15 : Close down.

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, OCTOBER 13.

- 3.0 : Afternoon session—Selected studio items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 4.30 : Close down.
 6.0 : Children's session, conducted by Uncle Leo.
 6.55 : Relay of service from St. Andrew's Church. Preacher, Rev. I. E. Bertram. Organist, Dr. Neil McDougall.
 8.30 : (approx.) Relay from Whangarei of concert by the Whangarei Municipal Band, under the conductorship of Bandmaster Dobson.
 Close down.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, OCTOBER 13.

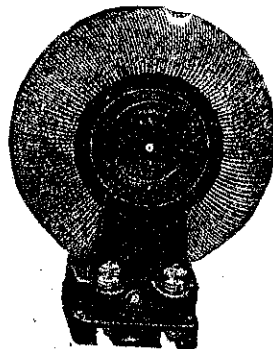
- 3.0 : Afternoon session—selected studio items.
 4.30 : Close down.
 6.0 : Children's service, conducted by Uncle George.

Sunday, October 12

WHY?

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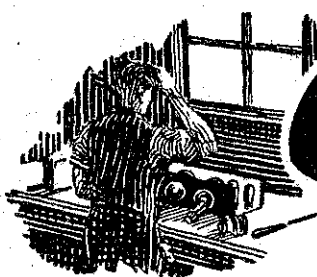
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Questions and Answers



In Brief.

S.A.M. (Hamilton). Your case is one of unusual dimensions and within the next week or so we shall give it close attention.

Amplifier.

J.B. (Christchurch) asks the probable cost of the A.C. amplifier described in our special issue.

A: The cost could be computed by reference to any of the advertisements. It would be somewhere about £12 if the constructor made his own transformer.

2. Would this arrangement be satisfactory with Pentode's moving coil speaker, which I have made and which is giving excellent results?

A: Perfect results should accrue and if the amplifier is carefully made there should be practically no hum.

A.C. versus D.C.

IS there any difference between an A.C. and a D.C. set? asks "Argument" (Napier) as far as tone, volume, and sensitivity is concerned.

A. The characteristics of modern A.C. valves are equal if not better than many of the D.C. types, and thus the all-electric receiver is equal, if not superior, to the battery set. Valve for valve efficiency can now be obtained. The extra valve in the A.C. set is employed only because there is more power available. The superiority of a seven-valve all-electric over a six-valve D.C. can be exemplified by reference to our D.X. columns. Reception of American and Japanese stations with the all-electric Neutrodyne are now quite common occurrence, where

as in the days of six-valve Neutrodyne they were less common.

2. Does the variation in "A" current cause any notable results?

A: With the indirectly heated cathode type of valve, where the internal construction is such that small fluctuations in temperature have little effect, the result of temperature variation is almost negligible. However, in very many sets automatic line voltage control is provided as a safeguard.

Valves for a Small Set.

I HAVE a three-valve set, but find that although the volume is still good, tone has fallen off considerably, writes "F.W.W." (Ellerslie). The valves are twelve months old. I have been using special valves for each position. Is this satisfactory?

A: You have been using a good combination. We suggest that the grid bias battery has not received the attention it might have. You appear to have strengthened your "B" batteries and neglected the "C," with the result that tone is impoverished.

An Aerial Problem.

IF I raise my aerial another 10 to 20 ft. at the high end, would I be able to get further afield? asks "Listener" (Southland).

A: It is not the height at the higher end that counts; it is that at the lower. If the aerial were raised at this end, an improvement should be noticed.

Valve Combination for a Reflex.

CAN I improve my valve combination in a Roberts' Reflex, as "D.H.R." (Christchurch).

A: An improvement should be apparent if PM4 in the first audio stage is replaced by PM3, and the detector C509 replaced by A415 or PM4D. This valve as detector is unsatisfactory from the point of view of consumption of "B" battery. The transformers become saturated when a power, or semi-power valve, is used in anything but the last stage.

Aerial Covering.

"R.R.P." (Christchurch) states that he has a double aerial, one side of each being separate lengths, one covered and the other insulated. Should they both be bare?

Questions and Answers

OUR Question and Answers Department are always prepared to give consideration to the problems of our readers. This service is gratuitous, but a few courtesies are asked.

1. All technical correspondence should be addressed Technical Editor, "Radio Record," Box 1032, Wellington.

2. Be brief, do not make apologies for writing, and where possible, set out the questions in tabular form and state name.

3. When diagrams to be returned or a query of a nature that is not suitable for discussion in the columns is sent, include a stamped and addressed envelope.

4. In general we cannot undertake to discriminate between competitive trade apparatus.

5. If you prefer to use a nom-de-plume keep the same one if writing again. This helps in the entering of the queries for future reference. All letters must be signed with full address. Initials will be used in answering.

A: The question is a little vague. The meaning of double aerial being ambiguous. As for the covering, there will be very little difference whatever the combination.

Coil Design.

WHAT are the number of turns, spacing, and gauge of wire required on a 2-inch former to between 15 and 100 metres?—Mack (Johnsonville).

A: Four coils are necessary, built up of 18 gauge wire, double spaced, with tuning condenser .0001.

Metres.	Secondary.	Tickler.
100 to 65	28	10
65 to 45	17	8
30 to 45	9	6
15 to 30	4½	5

Experiment with the number of tickler turns may be necessary, as the values are approximate only.

2. Will a Philips Trickle charger charge Megohms "B" batteries eight in a row?

A: Philips have several trickle chargers, and it is necessary to know which one is intended. To charge eight in a row the output voltage would have to be sixteen volts. The best plan is to series parallel them, arranging them so that the voltage is equal to that delivered by the charger, but the amperage that of the numbers of rows in parallel plus amperage of an individual coil.

3. Who are the New Zealand agents for the Ward and Goldstone Alverno Rectifier?

A: Extensive inquiries have failed to locate the agents.

Improving the Browning Drake.

I HAVE a 4-valve Browning Drake, writes "Brownie" (Stratford), and I would like to know which of the following will give me the best results. The addition of a screen grid as H.F., parallel feed, adding another stage of R.F., or another stage of audio.

A: The result of any one of these additions will rest largely with the ability of the constructor, but adding another stage of triode R.F. should be the most effective. Both radio stages should be parallel fed. Two audio valves could quite well be used, but no more than this if transformer coupled, unless, of course, push-pull is used in the last stage.

2. Would a short-wave adaptor work satisfactorily from this set?

A: Yes, providing the adaptor itself is satisfactory.

3. Why can I not get 2YB, which is about 25 miles distant, when I can get 4QG, 7ZL, etc.?

A: It appears that the inductance of your tuning coil is too high—take off a few turns of the secondary.

Note: All queries should be addressed to the Technical Editor.

Strengthening the Browning-Drake.

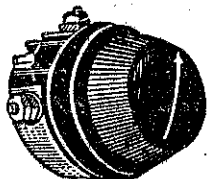
I WISH to strengthen my Browning-Drake, says "Screen Grid" (Ngāo). Which is the best way to do so—using the screen grid booster or building the five-valve Browning-Drake?

A: Building the five-valve Browning-Drake, but see the reply to the above correspondent.

2. Could I use my present .0005 condensers for tuning and use 3in. coils?—Yes.

3. Is it necessary to use a short aerial if the screen-grid booster is used?

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Moisture
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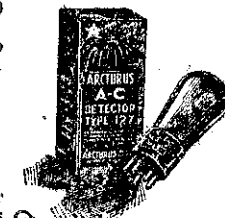
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Type 180 (corresponding 280).....	22/6
Type 145 (corresponding 245).....	25/-
Type 124 (corresponding 224).....	27/6

Your dealer can procure from:
RADIO LTD., Auckland.

A.: It is not necessary, but it improves the selectivity and cuts down the noise level.

Note: The 2-R.F. Browning-Drake occasions some people a little annoyance as far as neutralising is concerned, but with the addition of parallel-feed and by-pass condensers between "B plus" R.F. and earth no difficulty should be experienced. The writer has heard several of these sets that have been carefully built. They have been neutralised and give very fine results as far as sensitivity and tone are concerned.

Questionable Batteries.

I HAVE a two-valve all-wave regenerative set, writes "C. McF." (Dunedin). My "A" battery is new, but a 45 volt "B" battery has had ten months' use. Reception has weakened considerably of late.

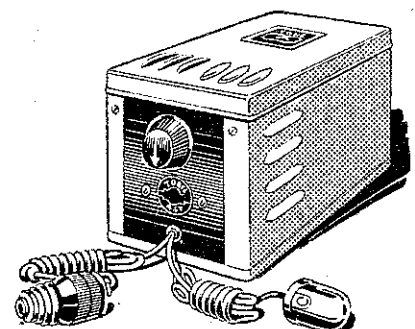
A.: Replace the 45 volt block and add another to make 90 volts. Examine the grid condenser and grid leak. If handy to a dealer, have the valves tested. Carefully examine the set for poor contacts between the valves and the sockets for corroded joints or terminals. Inspect the tuning-condenser for a short-circuit.

Tetrode Amplification.

WISHING to help a beginner with his first set, I would like you to answer the following questions concerning the Tetrode Crystal Set and Amplifier described in your issue of August 9.—"Kauspanka" (Hastings).

1. Would this set give good speaker reception at Hastings of the New Zealand stations?

Install the TOBE "A" Eliminator



---cuts out the "A"
Battery
with its trouble, mess and dis-
appointments

JUST
PLUG IN
YOUR
ELECTRIC
LIGHT
SOCKET!

The TOBE "A" is of superior design, assuring satisfactory service. Component parts are of heavy, solid construction. Guaranteed for one year. Price only £8/5/-. Call or write for particulars.

Waterworths Ltd.,
216 LAMBTON QUAY,
WELLINGTON.

A.: This is asking rather much of a one-valve set. It should give good reception from Wellington and 'phone reception of the other stations.

2. Would a screen grid give better results and could this be operated on 22½ volts?—Decidedly not.

3. Would the amplifier for a crystal set from the "Listeners' Guide" give as good results?

A.: The two circuits are identical with the exception of regeneration added to the more recent set, which is the better.

4. Would a galena crystal be more sensitive to louder reception?

A.: Being more sensitive will be slightly louder, but would be very annoying when tuning.

5. There is no earth shown in the diagram. Is a connection to "A—" as advised in the "Record" the only one required?

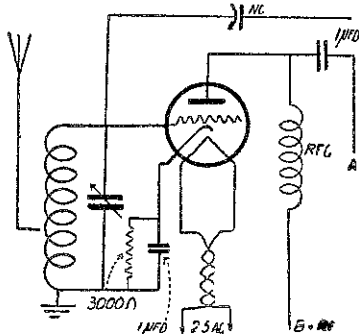
A.: It has been shown in the lay-out diagram, but unfortunately omitted in the theoretical diagram. Terminal No. 5 should be grounded.

6. Is a tetrode suitable for an R.F. amplifier?—"Yes."

Adding a Stage of A.C. Radio.

A. C.9" (Palmerston North) who owns a three-valve A.C. set, wishes to add another stage as a booster. He does not wish to alter his set.

A.: Accompanying is a diagram of such a booster, using the 227 type of valve.



Its construction should not present any difficulties.

Transformer Problem.

"N. D.P." (Southland) asks concerning power transformers:

1. Would a rectifier of an "A" battery eliminator rectify high voltage at approximately 400 volts, passing 100 milliams.—No.

2. Could a battery charger transformer be reversed to make a step-up transformer for transmitting purposes, providing a bank of resistance lamps were placed in series parallel to break down the voltage of the lines to that of the normal transformer secondary?

A.: A bright idea certainly, but unfortunately not a very happy one as far as the lighting bill is concerned. By this method, you are running to waste about five times as much electricity as you use. Construct a properly designed step-up transformer as per the "Listeners' Guide."

3. Which is the best way to rectify the current?

A.: For very high voltage two 281's, or their equivalents.

4. What is the drop occasioned in voltage by the rectification.

A.: With a valve as rectifier, it is very small. Take the difference between plate rating and output rating.

ON board the Graf Zeppelin there is a ciphering and deciphering machine to guard the secrecy of passengers' private messages. The machine sends a succession of letters unintelligible to anyone save the possessor of the deciphering apparatus. When the Zeppelin first flew over the Atlantic she used this machine to send private newspaper dispatches.

Microphone Trials

Wireless Wanderings

For Aspiring Broadcast Artists

SINCE the advent of the Australian Broadcasting Company, it has been their policy to place the best available talent before the listening public, and, realising the stupendous task that lies before them in the lack of first-class broadcasting artists, they have recently inaugurated what they term a Trial Day.

This is a day set aside for aspirants desiring to achieve success in the realms of broadcasting, and every artist is given a trial to ascertain his, or her, suitability for the work. One of the greatest difficulties for intending aspirants to overcome, is for them to remember that softness is the keynote of successful broadcasting, as their performance is intended for the entertainment of listeners who are individually domiciled, and who are not members of one immense audience.

The studio is specially constructed for this type of work, having sound-proof walls draped with heavy black curtains to absorb echo, and prevent resonance. The only persons in the room during the trial are the accompanist and the artist. The sound is picked up by the microphone, amplified, and conveyed to the loudspeaker in the adjudicator's room, where the quality of the performance is judged. Those who are suitable are engaged, and those who show promise are invited to join the newly inaugurated Microphone class held once a week under the direction of an expert.

This commendable innovation will certainly materially increase the amount of talent at present available, and first-class programmes, with widespread variation, should result.

LIGHTS will soon be installed on all radio masts of the Radio Corporation of America to safeguard aviation. The corporation has previously refused to do this, but has now decided to spend £25,000 if necessary to install danger lights on its towers. This decision was come to in view of the exigencies of the situation, for the failure to light the thirteen 400 feet masts at New Brunswick has been a menace to all pilots flying the air-mail course.

BY the use of headphones and a specially constructed microphone, an experimenter has listened to the sounds made by grubs while devouring apples. It is understood that the noise they made in spitting out the pips came through at loudspeaker strength.

AT a meeting of Hamburg shipping companies it was stated that technical difficulties in the way of wireless telephonic communication with ships at sea had been removed, but there were still obstacles in the way of fitting passenger vessels with the necessary telephone apparatus on account of expense. Experiments are now being made with fishing vessels, and it is asserted that as the use of the telephone does not require any special skill, this will render unnecessary the carrying of a wireless operator.

NEW YORK taxis of the most modern class are now being equipped with a radio-receiver which is capable of receiving any programme within a radius of a hundred miles to the enclosed passenger compartment. The set is all-electric and operates on the battery of the car, which has been enlarged to "feed" the set as well.

RADIO is proving the rage in Russia. The Soviet is offering every encouragement by reduced fees and by the donation of free sets. In a little over a year the Soviet Government placed orders with the General Electric Company of New York for £120,000 worth of radio supplies.

Speed and Ease . . . Are two very important features in the assembling of the . . .

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What are the Principles of Fading?

Explanation of a Common Phenomenon

By J. M. Bingham



THE range of a broadcasting station is entirely governed by the medium separating the transmitter from the receiver. It is not necessarily air, but for want of a better name, theorists give it the term, "ether." When a broadcasting station is "on the air" it is causing vibrations or waves in this ether, which travel outwards in all directions. These waves vary in intensity in accordance with the speech or music entering the microphone at the studio, and when picked up by the receiving aerial, cause corresponding variations to affect the receiving mechanism, thereby reproducing the original performance from the loudspeaker.

A peculiar property of these ether waves is that they can be absorbed or reflected by electrically conducting substances, and this property of reflection is utilised to a certain extent in one form by the "beam" transmitting stations. Again the fact that electrical conductors will absorb these waves may be instanced in the use of shielding, now common in most receiving sets.

WHEN a wave leaves the transmitting station, it travels outwards in all directions. One component hugs the surface of the ground and becomes gradually absorbed as the distance from the transmitter increases. Other portions of the wave continue to travel upwards.

Now the atmosphere surrounding the earth and through which the ether waves travel, may have varying conditions. At daytime the presence of the sun's rays causes the atmosphere to assume a condition where it is "ionised" or rendered more or less conducting. The waves, therefore, which travel upwards from the transmitting aerial become absorbed, leaving only that portion which travels along the ground as

effective on the receiving antenna. This condition is shown in centre diagram.

A receiver located at A receives the ground wave at good strength, whereas B receives it weakly and C not at all.

When night falls, however, conditions change. The lower and comparatively dense atmosphere loses the con-

THE upward waves, therefore, which during the daytime were absorbed, are not absorbed at night, but travel onwards till they reach this conducting layer. Some are refracted and lost, but others which strike at a somewhat more acute angle are reflected back to earth again as in the upper diagram.

"A" still gets good signals, due to the

As radio broadcasting is fast becoming established as a public utility, the number of licensed listeners continues steadily to increase. Those listeners who have made a study of the subject and have safely passed the dial-twiddling stage, give full credit to the wonderful quality of the YA stations. There are some, however, particularly new-comers to the listening-in fraternity, who may be inclined to blame the broadcaster for every defective note they hear on their loud-speaker. Certainly, reception is not always what one would like it to be, but more often than not the trouble is quite beyond the control of the broadcasting station.

A very frequent cause for complaint is the distortion occasionally heard in the evenings, and commonly called "night distortion." This trouble is entirely atmospheric and is a form of fading which has frequently been commented on and explained in these columns. However, for the benefit of the aforementioned new-comers, another explanation of the subject will not be amiss.

In the accompanying article Mr. J. M. Bingham, chief engineer of the Radio Broadcasting Company, deals with the subject in a popular and strictly non-technical manner:

ducting property which it had when the sun's rays were present, but the upper or rarefied atmosphere still retains a certain amount of ionisation.

The upper stratum of rarefied air where this ionisation begins to manifest itself is known as the Heaviside layer from the scientist Heaviside, who was first to advance a theory on the subject.

ground wave, but B is now getting signals from two directions—one along the surface of the ground and the other due to reflection from the Heaviside layer. C is also getting signals, but whereas during the daytime he got nothing owing to the fact that the ground wave died out before it reached him, he is now getting signals by reflection.

"B" is in an unfortunate position, however. In the daytime all was well. He had a straight-out wave to receive from one direction only, but night has fallen and his receiving set is called upon to accommodate two portions of the same signals which have travelled different paths. If they arrive in their proper relationship, reception will probably be all right, but if from any cause the reflected wave becomes disturbed, the two portions will tend to oppose each other and distortion accompanied by fading will result.

THE atmosphere is always in a state of turmoil, and meteorological conditions affect the height of the Heaviside layer. These variations may take place rapidly or very slowly, but in whatsoever manner they occur there is bound to be a corresponding variation in B's reception conditions.

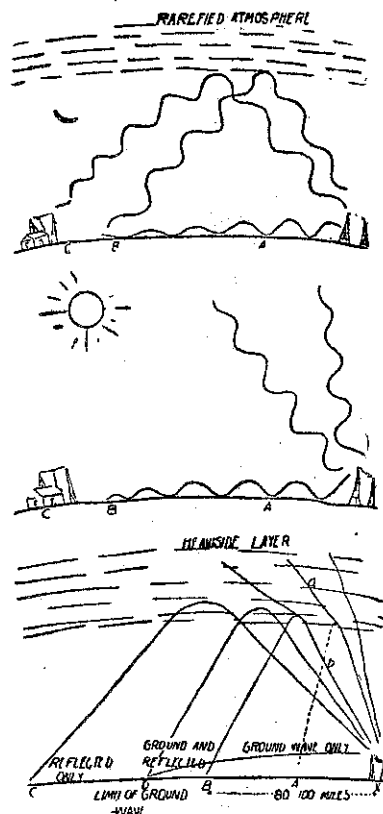
Reference to the lower figure will show that although A is well within the range of the ground wave, he does not get any of the reflected wave. The wave A, which might be expected to reflect, does not do so, as it strikes the Heaviside layer inside the critical angle and is refracted instead of being reflected.

However, B striking at a somewhat greater angle is reflected back to earth again at B. It will thus be seen that for every broadcasting station there is

to B, where no reflected wave is received at any time. This zone varies considerably with the wave length used in general for broadcast purposes may be taken at about 80 miles.

The ground wave, on the other hand, is only slightly affected by day or night conditions, and the range at which it loses its effectiveness depends almost entirely on the power of the station.

IT can readily be understood, therefore, that from X to B reception is practically the same for both day or night, as it is the ground wave only a zone surrounding the station from X



that is effective. From B, where the reflected wave begins to be in evidence at night, to D, where the ground wave ceases to be effective, is the zone where distortion fading will be in evidence, as this is the area in where both components are received. From D to beyond C no ground wave is received, but only the reflected wave at night. There are thus three conditions for every broadcast station: (1) An area close to the station where reception is constant both by day and night; (2) a zone beyond where good daytime reception is obtained but liable to distortion at night; and (3) a zone of still greater radius where weak or no signals are heard during the day, but where fairly good reception is obtained at night.

These conditions are entirely beyond the control of the broadcasting station, although the unfortunate broadcaster usually has to take the blame.

The obvious solution is to confine all the radiated waves to the ground, but means for doing this have yet to be devised.

Increasing the power of the station not only increases the daytime range,

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but also increases the area over which interference of ground and reflected waves may occur at night. This characteristic probably accounts for the fact that some of the lower-power stations which are heard only weakly in the daytime, if at all, are quite free from distortion fading at night, as also are high-power stations at a distance when the receiver is beyond the range of the ground wave.

Observant listeners, therefore, if they experience distortion fading, will notice that there is always quite a definite relationship between meteorological conditions and the frequency or intensity of the fading.

The A.C. Receiver

Valve Protection

RHEOSTATS are not used in alternating-current receivers, because the filaments of the special valves are not sensitive to slight variations in temperature. In other words, though the filament temperature may alter, the electron emission remains approximately the same.

In the heated-cathode valves, this is due to the fact that the electrons are emitted by a small cylinder, which is indirectly heated by the filament. Naturally, once the cylinder has become hot, any slight temperature variation in the filament, unless constant, does not readily communicate itself to the cylinder.

In the directly-heated filament A.C. valves, a very low voltage and high current are employed by the filament, and this also tends to keep a steady emission, even though the filament voltage fluctuates slightly.

The life of any alternating current valve is materially reduced when the filament voltage is increased over the rated value, and, for this reason, it is beneficial to place a rheostat in each filament circuit, so that the applied voltage can be controlled, even though the line voltage fluctuates. In this way, by operating the filaments at a slightly lower value than that specified, the life of the valve will be greatly increased. This has a distinct advantage when an automatic line voltage control is not provided, especially if an A.C. meter be placed in parallel with at least the 12.5 remaining, or that supplying the greatest number of valves. The pilot lights employed in an A.C. set can be connected to any of the filament circuits with equal results. However, since the bulbs supplied with these lights are usually designed for a five-volt supply, it is considered desirable to connect the dial lights to the power valve, as this is usually operated from a five-volt filament supply. Alternatively, it is an easy matter to change the bulb to one which will operate from the lower voltages usually supplied to A.C. valves.

"Ham" Talk

"WATT are you doing here?"

"Eating currents," replied the apprentice. "Anode you'd catch me at it."

"Never mind, but wire you insulate this morning?" asked the boss.

"Leyden in bed."

"Can't your relay shunts get you up?"

"Amperently not, sir."

"Fuse going to do that every day, you can go ohm," said the boss, and the circuit was broken right there.

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- MAJESTIC ELECTRIC RADIO** Berryman's, The Home of Music,
Palmerston North.
- MAJESTIC, ATWATER-KENT AND RADIOLA ELECTRIC SETS** Radio House, Hamilton.
G. S. Anchor, Manager.
- PHILIPS VALVES AND APPARATUS** All Good Radio Dealers.

What is Electricity?

DEFINITIONS from five dictionaries are as follow:—

- (1) The property of attracting light.
- (2) That power in bodies which attracts and repels substances.
- (3) The name of the cause of certain phenomena of attraction and repulsion.
- (4) Peculiar condition of the molecules of a body, or of the surrounding ether, developed by friction, chemical action, heat or magnetism.
- (5) A power in nature, a manifestation of energy, exhibiting itself when in disturbed equilibrium or in activity by a circuit movement, the fact of direction which involves polarity, or opposition of properties in opposite directions.

The last two are from the Oxford and Webster dictionaries respectively. A number of definitions from various eminent men have recently been published, and the three quoted below are much more reconcilable to present-day knowledge. The first, from "Modern Views of Electricity," by Sir Oliver Lodge, is as follows:—

(1) Electricity may possibly be a form of matter—it is not a form of energy; but the same is true of water, or air, and we do not, therefore, deny them to be forms of matter.

The second, a rather theosophically inclined definition, by the Borough Electrical Engineer of Aylesbury, states: (2) Electricity is a flow of negative electrons, just as wind is a flow of air particles. The negative electron is a vortex of ether, a helical streak of motion in the unpalpable glycerine of that primordial sea. The positive electron is a hole in space where the foetatic energy enters and orders manifestation, that transient streakiness of the ether matrix.

The third, from Hutchinson's "Past and Future Developments of Electricity," claims that:—

(3) The sun is the original source of all electricity, which is imprisoned light, heat, and power, and has momentum, mass and weight.

The first five definitions given, though now obsolete, are still used universally, and it is certainly high time that they were replaced by something more in accordance with present-day knowledge.

YOU CAN'T BUY A BETTER VALVE THAN

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THE MASTER VALVE

The Technician Explains

The Efficiency of Parallel Feed

(By "CATHODE")



READERS will be familiar with the type of high-frequency coupling described by the term "parallel-feed"; for a parallel-feed Browning-Drake has previously been described in the "Radio Record's" technical pages and has received very favourable comment.

The circuit is one concerning which a great deal of misapprehension seems to exist; it is hoped to make short work of the task of removing this misapprehension, the arising of which is an apt illustration of the truth of the ancient saw—"A little knowledge is a dangerous thing."

Examining a typical parallel-feed coupling such as that illustrated in Fig. 1, we find in the plate circuit of the high-frequency valve a choke and a tuned circuit which are effectively in parallel; the return path from the choke to the filament circuit is, of course, via the B battery, which may be regarded as a continuation of the wiring. Now it is fairly common knowledge that the amplification obtained from a valve depends upon the magnitude of the impedance in its plate circuit. Taking, for instance, a resistance-coupled audio stage such as that shown in Fig. 2 and applying the well-known formula:—

$$\text{Amplification} = g \times \frac{R_e}{R_i + R_e}$$

where g = amplification factor of valve
 R_e = external resistance
 R_i = impedance of valve.

we find, assuming the valve to have an A.C. resistance (or impedance) of 20,000 ohms, that an increase in the coupling (or external) resistance from 10,000 ohms to 40,000 ohms will result in the amplification being doubled.

Suppose now that we endeavour to use a resistance coupled stage such as that of Fig. 2 for high-frequency amplification in the broadcast band. What

will be the result? We know only too well. Amplification will be practically nil. And why? Because the various stray circuit capacities and the grid filament and grid-plate capacities of the succeeding valve are in parallel with the coupling resistance. Bearing in mind that the combined value of two impedances in parallel (excluding resonance effects) is always less than that of either, and remembering further that the impedance presented by 20 or 25 micromicrofarads of stray capacities to broadcast frequencies (say, 300 metres) would be only in the region of 7000 ohms, it will be appreciated that we could scarcely expect any worth-while amplification.

Replacing the plate resistance by a high-frequency choke as in Fig. 3 does nothing to improve the position. The choke will, of course, be substantially equivalent to a high resistance at broadcast frequencies, the impedance presented at differing frequencies varying in the manner depicted in the lower curve of Fig. 4, which is the impedance curve of a very high quality commercial choke. It will be seen that the impedance presented at broadcast frequencies is only about 20,000 ohms, a value which, as it stands, is not such as to secure anything approaching maximum amplification from a valve; when, in addition, we consider the effect of the stray capacities in reducing what amplification we might otherwise obtain, the position again appears rather hopeless. Yet certain English journals have lately been endeavouring to popularise circuits of the Fig. 3 type; it seems to the writer only fair to warn construc-

tors that their use can only result in impaired amplification and an intolerable lack of selectivity.

Returning now to Fig. 1, we still find a high-frequency choke in the plate of the valve, the only distinction between this circuit and that of Fig. 3 being that in Fig. 1 the grid leak which appears in Fig. 3 is replaced by a tuned circuit which, like the grid

leak, is effectively in parallel with the choke. It will be clear that these three capacities, which have previously operated to seriously curtail amplification, are now in parallel with the tuning condenser, their effect being merely to increase the capacity of this component very slightly. This, then, is the explanation. The self-capacity of the choke and the various stray capacities absorbed into the greater capacity of the tuning condenser, increasing this slightly, while the impedance presented by the choke becomes that which would be presented by its exceedingly high inductance were it entirely devoid of self-capacity. Just how high this impedance is may be ascertained from the upper curve of Figure 4; it will be seen that, over the broadcast band, it varies from about three-quarters of a megohm to a megohm and a quarter, values so high as to reduce only slightly the amplification which could be obtained from the tuned circuit alone were this connected directly in the plate circuit.

Since we have gone to all this trouble to show that the parallel-feed circuit is, as regards amplification, subsequently equivalent to the admittedly good tuned plate coupling, we have imposed upon ourselves the further task of showing what, if any, advantage the parallel-feed circuit has over the tuned plate. It has, in fact, two advantages. In the first place, high-frequency currents are to some extent kept out of the "B" supply which, if it possessed any substantial impedance to high-frequency cur-

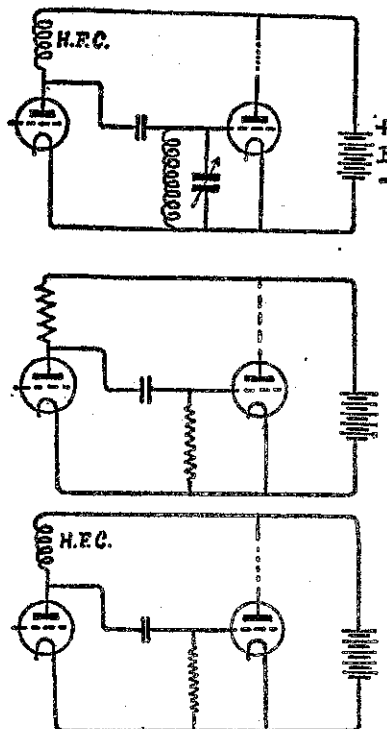


Figure 1 (upper).
 Figure 2 (centre).
 Figure 3 (lower).

leak, is effectively in parallel with the choke. Seeing that the impedance presented by the tuned circuit, even if it be of fair efficiency, is unlikely to exceed 200,000 ohms, while the grid leak which it replaces might have a resistance of 2 megohms or more, one might readily assume that the only effect of introducing the tuned circuit, leaving selectivity out of the question, is to reduce amplification still more. I say one might readily assume this, and a great many people who should know better have assumed it, but in point of fact, as a practical test will soon show, amplification will be very considerably increased by the change.

In order to appreciate the reason for this increased amplification let us redraw Fig. 1 in the form shown in Fig. 5. Here we have the high frequency choke stripped of its self-capacity which is shown separately at C1. Similarly the grid-filament and grid-plate capacities of the next succeeding valve are shown as C2 and C3 respectively. Now we are probing earnestly at the solution of the increased ampli-

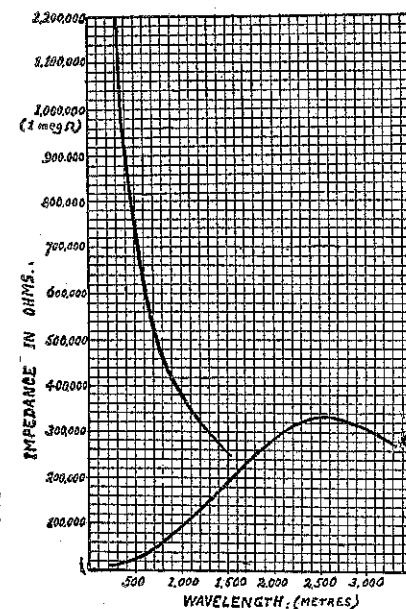
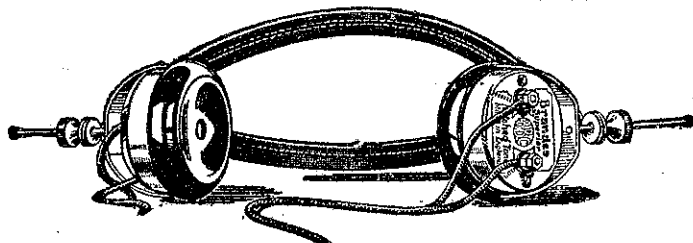


Figure 4.

rents, as a battery not in its first youth or a mains supply readily might, would in all probability introduce instability of the worst kind. Secondly, it permits tapping the grid coil in the manner illustrated in Figure 6, a procedure which itself confers two benefits, firstly, that of increased selectivity, and, secondly, that of permitting the proper matching of the impedance of a three-electrode valve; where a screen grid is used, there is no object in tapping the grid coil unless it is desired to

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secure enhanced selectivity at the cost of a drop in amplification.

A comparison of parallel feed with high-frequency transformer coupling does not show any substantial advantage in favour of parallel feed, assuming that the high-frequency transformer used is one of real efficiency. There is this to be considered, however: that the construction of a highly-efficient transformer is a matter of some delicacy, the completed component being anything but robust, while the construction of a simple tapped or untapped coil is a matter of the utmost simplicity, and will result in a product capable of sustaining any amount of knocking round.

The A.C. Browning Drake

Coil Considerations

WITH the multitude of possibilities of coil condenser combination for this set the full details for any one combination was not given in the original description. It was intended that the set would be made by constructors who have had a little experience in coil construction and who were in consequence able to work out the specifications of this for themselves.

Some constructors who do not have any apparatus on hand and who in consequence have to purchase this will be advised to follow the following details:

Obtain a piece of two-inch diameter cardboard former about eight inches in length, a quarter pound of 24 d.s.c. wire and a few yards of 30 d.s.c. Wind the aerial coil first. Drill two very small holes in the end of the former (marked G) and thread the end of the wire through this so as to make a substantial hold. From the lowest of these holes measure two inches and drill another two holes (marked E). Measure $\frac{3}{4}$ inch from here back toward the first hole and perforate the former to allow a loop of wire to be passed through (marked A). Commence winding. When the perforation is reached, bare the wire and pass it through as a loop, catching another piece of heavier wire in the loop inside the former. Tighten the wire and proceed until the last two holes are reached. Cut the wire and pass it through the holes. Later solder the joint to the loop. Leave sufficient to make a connection. Leave a space of an inch, and again drill two holes (marked G), measure $2\frac{1}{4}$ inches and then another two holes (marked B—). From these two measure back half an inch and make another slot (marked N). Commence winding, and proceed as before. The coils on completion should be aerial coil 73 turns tapped at the eighteenth, grid coil 87 turns tapped at the fifteenth. A small variation from these specifications will be immaterial. Provision has now been made for tuning the aerial coil with a .0005 mfd. condenser and the regenerative with a .00035 mfd. The connections are evident from the rest of the description.

The more experienced may depart from these specifications, and where the coils are already in use in a Browning Drake merely transpose them to the new set, do not rewind them unless economy in the size of former is required.

The tickler comprises about from 15 to 20 turns wound on a smaller former and pivoted under the grid end of the grid coil by bolts, washers and cellars. The ends should be fastened to flexible wire and brought across to the main former. The terminals should be marked T and P1, but the connections to them may have to be reversed on try-out, so it is not advisable to solder them at this stage.

The description of the primary was sufficiently detailed, so that further description this week is unnecessary. One end goes to B— and the other (P) to the condenser C.5. The connections may have to be reversed later.

When commercial coils are used a few alterations are advisable. The primary should be removed and the turns reduced to 15 or 16 in the case of a two-inch former. Like other specifications, these alter for different conditions. Those who wish to make excursions into the realm of simple mathematics can use the following simple formula for determining number of primary turns:—

$$P = \frac{T}{\sqrt{\frac{200,000}{R_i}}}$$

where P = Number of primary turns.
T = Number of turns on the grid coil.

R_i = Valve impedance.

Another alteration to commercial coils where neutralizing is carried out from the end of the secondary is to disconnect terminal marked N, connecting it instead to the fifteenth turn from the bottom. This loose end could with advantage be removed.

Watch those Valves

READERS who use push-pull circuits should make a point of checking the emission of their valves from time to time to see that one or the other has not seriously fallen off, thus upsetting the balance. A paper label should be stuck on each of the push-pull valves, and the emission at zero grid volts for a given plate voltage marked when the valve is new. No elaborate apparatus is necessary to make this check.

It is advisable not to keep the valve alight for more than a minute or so at zero grid volts. Some of the modern super-valve sets have a nasty habit of losing a considerable portion of their emission without warning, and a check of the kind mentioned should certainly be made from time to time.

Testing Condenser Insulation

FIXED condensers are worse than useless in a receiver unless their internal insulation is sound. This is specially important in B battery shunting condensers, and those who have electric supply mains available can test any doubtful condensers in the following way:

Cut one of the leads to a lamp, leaving the other lead intact, and connect the ends of the cut lead to the terminals of the condenser. The lamp and condenser are then in series, and when the switch is put on, the lamp should not light, if the condenser dielectric is sound. Any fixed condenser should be able to withstand safely the 220 volts of the mains, so that no damage will result from the test. In the event of a fault in the dielectric, and a consequent contact between two adjacent plates of the condenser, the lamp will light, acting as a safety resistance and preventing a short-circuit in the mains.

To Prevent Noise

AS a rule it is usual to employ a variable condenser on the short waves for controlling reaction. It is impossible to keep such a condenser completely free from dust, and any small particles which become lodged between the two sets of plates will cause a crackle and scraping noise as the condenser spindle is turned.

This trouble may be removed by inserting a fixed condenser in series with the variable one. The value of this fixed condenser may be in the neighbourhood of .001, although a much smaller one can be employed if the variable reaction condenser is found to be too large. Incidentally, such a condenser acts as a safeguard for the valves in the event of the variable condenser becoming shorted, in which case it is possible for valves to be burnt out.

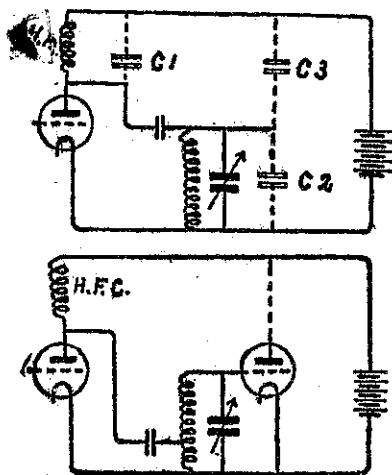


Figure 5 upper.
Figure 6 lower.

There is one other point which might be dealt with, namely, the ascertaining of a suitable tapping point on the grid coil to match a valve of any particular impedance. It is felt, however, that this can be better dealt with when the writer has gone a little further with the papers on coil and high-frequency transformer design which are at present appearing in the form of a short series, and readers will doubtless condone the slight delay in dealing with this particular matter.

As a final word, it is desirable to stress the necessity of using a choke of the highest possible quality in parallel-feed circuits. The effect of any substantial loss in a choke thus employed is to seriously reduce the effective impedance in the plate circuit of the valve, and with it the amplification. For the enthusiastic constructor it is proposed to prepare in the near future complete data on the design and construction of high-frequency chokes having some pretensions to efficiency, and this will be published in due course. We have learnt from our simple analysis that to be of the utmost service in a parallel-feed circuit, the high-frequency choke employed must possess a very high inductance (that is, it must have a great many turns), while a certain amount of self-capacity will not be so serious as might be the case in a different circuit. These things will be borne in mind when the process of design is embarked upon. "Different chokes for different purposes" will be the watchword of the future.

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Radio, Manila.

BOTH transmitters of KZRN (485 metres and 48.8 metres) are located at Manila Heights, about seven miles from the studio on top of Manila Hotel. The shortwave transmitter puts one kilowatt of energy into a special tuned antenna of the doublet type. The set is crystal controlled. The following schedule has been reduced to New Zealand time, which is 8½ hours ahead of Manila time.

Monday, 7.30 p.m. to 9 p.m.; silent night.

Tuesday, 7.30 p.m. to 9 p.m.; 9.30 p.m. to 2.30 a.m.

Wednesday, 7.30 p.m. to 9 p.m.; 9.30 p.m. to 2 a.m.

Thursday, 7.30 p.m. to 9 p.m.; 9.30 p.m. to 2 a.m.

Friday, 7.30 p.m. to 9 p.m.; 9.30 p.m. to 2.30 a.m.

Saturday, 7.30 p.m. to 9 p.m.; 9.30 p.m. to 3.30 a.m.

Sunday, 2 p.m. to 7.30 p.m.; 9.30 p.m. to 1.30 a.m.

Excellent reception is reported from KZRM on 31.4 metres, a wavelength which has been used since the letter containing the above information left Manila on August 11.

Another correspondent, from Christchurch, has heard from Manila. He says his letter is signed by a lady as "Broadcasting Manager." (Since writing the above I have heard KZRM on 48.8 metres.)

Who is R.R.?

A WRITER in an Australian radio magazine mentions a shortwave station with the call of R.R. No particulars are given. A correspondent from Blenheim also reports "R.R." at 11.45 p.m. on Friday night, testing on various wavelengths. Some information of this new station will be welcomed.

Is Big Ben Broadcast by 5SW?

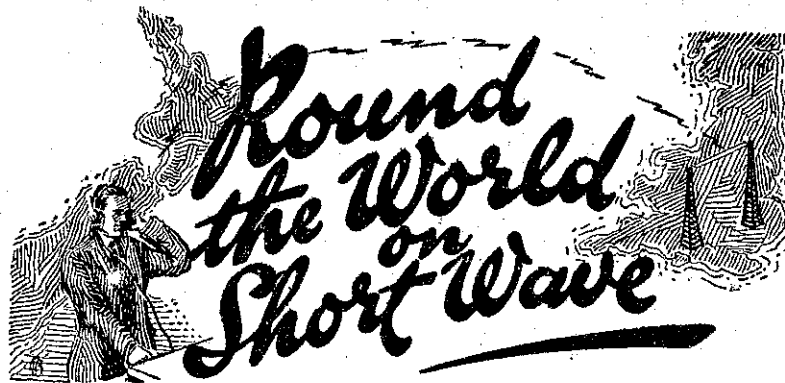
BIG Ben can be heard any morning (except Sunday and Monday) at 5.30 a.m., striking the hour of 7 p.m., British summer time.

The "tweets" ("pips" is a better description) are heard every morning at 7.30 a.m. being 9 p.m. in England.

Anybody who has heard Big Ben could not mistake its sound. The writer has often heard it on a still day quite clearly eight miles away. A friend who has recently arrived from England says that Big Ben is often put "on the air," programmes permitting, during the day.

Siam on Shortwaves.

A STATION working on about 29.5 metres has been heard during the past week. The call, if any, was not heard, but "Bangkok, Siam, calling," was heard several times. Most of the music heard was similar to that heard from the Japanese stations, now familiar to most multi-set owners in New Zealand. The native



language, also, is similar to Japanese. English was spoken quite a lot, and clearly understood. A Christchurch correspondent reported a Jap. on 30 metres during the week. I think he will find that it was Bangkok, as I put it down for a Jap. on hearing the music.

English from RA97.

A CORRESPONDENT from Christchurch reports hearing a lady speaking in English from the Russian station, RA97—late RFM. After reading some news items she said: "Radio Station Khabarovsk, broadcasting on 70 metres, station RA97. It is now 2 o'clock and 5 minutes" (10.40 p.m. here.) That concluded the talk in English.

Saturday, September 21.

PCJ from 5.45 a.m. till 7.30 a.m. was received at R8-9 at its best. Static was bad. 5SW at R7-8 were spoilt by rapid fading at 6 a.m. Volume was better later, but quality poor. Koningwusterhausen was R9 at first, with some talk. Music heard later at reduced strength.

PCJ during the afternoon was spoilt by static all through. Strength was good from 1.30 p.m., when first tuned in till signing off at 5.38 p.m. Average about R8.

KDKA was too mushy to bother with. W2XAD was not heard; apparently not transmitting.

PCK, Holland, and PLE, Java, at 9.30 p.m. were working duplex. Each were R7.

RA97 was R9, with static the same strength.

At 10 p.m. an American station was heard on about 49 metres. I thought I heard Crosley Radio Corporation mentioned, who are the owners of W8XAL on this wavelength, but I fancy the station was KZRM, which works on 48.8 metres. Strength was R8, very good and steady, but static was very bad.

Sunday, September 22.

2XAD was extra good to-day. From 12.30 p.m. till 1.30 p.m., "The General Electric Hour." The "Lucky Strike" orchestra entertained for the next hour. During this period a mouth-organ orchestra by the "News Reel Boys" was heard. At 2.30 p.m. the special R.K.O. programme commenced and continued till the personal messages for Commander Byrd and party were "put over." The station signed off at 4.30 p.m.

The other stations transmitting the same programme were good strength, but not the quality of W2XAD.

I had the station on the speaker from 12.30 p.m. till 4.30 p.m. Weak at first, but good volume most of the time.

KDKA was good strength, but surging badly.

W6XN, at R8 and very clear, was tuned in at 5 p.m., when a "Golden Legend" had just been concluded. A musical programme continued from the KGO studios by the National Troubadours. The "Musical Musketeers" followed from 6.30 p.m. Request items were given during the last hour.

Monday, September 23.

VK2ME at R9 excellent; and GBX R7, gushy on duplex telephony, were

the only stations heard during the evening.

Tuesday, September 24.

G5SW commenced with the "Weekly Book" talk by Desmond McCarthy at R8. The usual ripple spoilt reception. A French reading was heard later. This was followed by a song recital, which was received fairly well. A promenade concert from the Queen's Hall at 6.30 a.m., with the overture "Flying Dutchman."

GBX and 2ME were late in starting, their carriers could be heard for some time before any conversation. Both were clearly readable. GBX R7-8, 2ME R9. The German commenced at 6.30 a.m. with orchestral music at R8-9 after his opening announcement.

Was out during evening till late. Tuned in 5SW at 11.10 p.m., when organ music was received at R4, rather unsteady.

Wednesday, September 25.

BOTH 5SW and the German were weaker than usual. They were both spoilt by surging.

Just before 7.30 a.m. a station on about 29.5 metres was tuned in at R7. A typical Japanese instrumental item was heard first. This was followed by ordinary music, without any call between items. At 7.40 a.m., "Hullo! Hullo! We are now closing down. Good-night," was heard in good English with a foreign accent. This has since proved to be Bangkok, but this was not heard during this transmission.

2ME and GBX were both good during morning and evening tests.

Thursday, September 26.

5SW at 6 a.m. was quite good at R7. Talk was about 75 per cent. readable. Reception too good to last and went off considerably by 7.30 a.m.

Singing was heard on about 31.2 metres, very clear, but weak. A call was not heard. The German was all talk for some time at R8. Music was heard later, when volume was less.

2ME and GBX both 100 per cent. readable at good strength morning and evening.

PCK at 8.45 p.m. was heard talking to PLE. The Dutch station was R4 and gushy, while Java was only just audible.

RA97, with orchestral music and talk, were well received at R8. Static bad.

Friday, September 27.

PCJ were at their best from 5.35 a.m. till 7.30 a.m. Volume R9 at the best period, but good strength all through.

The German, although quite good, was not so strong as PCJ this morning. 5SW R8-9. Rapid fade again spoilt reception.

On 29.5 metres (about) the weird music similar to Japan and China at R5. Static and mush bad. Volume increased to R9 at 6 a.m., when reception is quite good. Several musical (?) items are heard of the same style, then "Hullo, OZKD! Can you hear me?" etc., asking this station to reply, also for reports. Also, "Hullo, here is Bangkok, Siam, calling."

Just after 7 a.m. I heard Bangkok call "Hullo, OZKB, Bangkok calling. We heard you at 2.30 a.m., Bangkok time."

(This will be 7 a.m. New Zealand time.) This call was repeated and then the speaker continued in what I expect is Siamese; it sounded like Chinese. They were still going strong when I closed down at 7.30 a.m.

2ME and GBX were testing both morning and evening. The English station was the best yet during the evening test. W6XN was very good at R9 with dance music by the "Musical Musketeers."

RA97 with talk was R9.

PCK were transmitting records at R8 prior to their usual duplex telephony with Java.

Short-Wave Oscillation

Eliminating Treshold Howl

THRESHOLD oscillation is that peculiar howl which is sometimes experienced on short-wave sets, and which is somewhat similar in sound to a "grid-leak" howl. It occurs just about at the point where the set should commence to oscillate in the normal manner, but as soon as the reaction control is tuned to make the set oscillate more strongly, the threshold howl ceases.

There are two points which will invariably be found to help matters if not to completely cure the trouble. The first is to use a higher value grid-leak than the usual 2 megohms, one even as high as 5 megohms sometimes being desirable. Secondly, the effect of reducing the B voltage on the detector valve should be tried.

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