

# THE RADIO RECORD

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WELLINGTON, FRIDAY, JUNE 14, 1929.

## Why not Fifty Thousand this Year?



HE time seems ripe for a definite forward move in radio. Licenses have been renewed on the basis, up to the end of May, of approximately 40,000, compared with 35,000 in round figures at the same period last year. This is a clear gain of 5000 on a relative basis, and constitutes a very substantial proportion of renewals of licenses in existence on March 31.

THIS high average percentage indicates a sustained appreciation of the radio service. It is not necessary to claim that listeners are wholly satisfied with programmes, or, on the other hand, that the programmes represent the acme of perfection. Under the conditions ruling in this country, where it is desired to give a full service from four stations covering widely-scattered areas of listeners, with a revenue only a fraction of that enjoyed by our nearest neighbour, Australia, for the support of its main stations, attainment must necessarily run behind desire. It is, however, we think, recognised by at least the vast majority of listeners that now that the company has passed through the growing stages of plant installation and organisation, it is concentrating upon the provision of satisfactory programmes in the desire to please all at one time or another.

SUPPLEMENTARY to that attitude on the part of listeners comes notable technical advance in radio equipment. By the provision of the all-electric set and its abolition of much of the troubles attendant upon batteries, together with the arrival of the screen grid valve and the vast improvement in reception accorded by it, a new standard of clear-cut and satisfactory reception is provided for listeners. The effect of these improvements has been to gradually stimulate public interest, and the trade reports from various centres indicate that the radio atmosphere is good, sales are satis-

factory, and an optimistic atmosphere for the future prevails.

THESE circumstances in combination warrant, we think, the effort at this time to further capitalise the goodwill existing in the radio atmosphere. This movement should aim at the expansion of interest in radio for the good of all—listeners, traders, the company and ourselves—as all stand to gain in varying degree. Not the least gainers will be the listeners, for, as we have pointed out before, it is the peculiarity of the position that, if the radio revenue is £60,000, then for his 30/- the listener gets a £60,000 service, whereas if the radio revenue is but £40,000, then he gets for his 30/- but a £40,000 service. For no extra outlay, therefore, on his own part, each listener stands to gain immeasurably by any effort which will lift the radio revenue to the larger sum and provide a better service. From that angle it is definitely to the advantage of every New Zealand listener to co-operate with any movement which will advance radio.

WITH that thought in mind, we have no hesitation in asking that a comprehensive effort be made this winter to definitely popularise radio and extend the number of listeners. The trade, we believe, is eager for co-operation to that end. A movement of much promise has been started in Dunedin, and arrangements are in hand for the holding of a radio exhibition in that city from July 31 to August 3.

Even before we had news of that movement, the "Radio Record" had conceived the plan of, and taken preliminary steps in, formulating the holding of a radio exhibition in the Wellington Town Hall from July 24 to July 27 inclusive. Organisation to this end is now proceeding; and, while it is yet too early to say definitely that the exhibition will be held, we have every confidence that the advantages derivable from such

an exhibition by all parties will be so great that the necessary support will be forthcoming.

Plans for the exhibition provide for extended service from 2YA throughout its duration. Special programmes will be prepared by the Radio Broadcasting Company, and given in part from the Town Hall itself. Many novelties are under consideration for incorporation in these programmes.

THE public, we consider, would welcome the opportunity of visiting a comprehensive exhibit of the latest radio apparatus, where they would have the chance of seeing a demonstration of one device against another, and reaching a decision as to the best for their particular pocket and purpose. It is, we think, within the general knowledge of most listeners that the novice finds the greatest difficulty in reaching a determination as to the particular set most suitable to his needs. Some refrain from buying because they think further advances will make obsolete present-day sets. They therefore forgo much undoubted pleasure. Such people would have the opportunity of seeing the perfection attained by the latest apparatus and be stimulated to action.

Plans are also in view for enlisting the interest and support of constructors. In this connection the co-operation of the Wellington Amateur Radio Society has been promised in supervision of competitions governing the building of various sets. Details of these have been drawn up, and, once the general scheme is assured, will be published.

EXHIBITIONS of the nature proposed have proved to be brilliantly successful wherever they have been held. In London, in Berlin, and in Sydney, the radio exhibitions, as conducted, proved an inspiration both to the public and the trade. Radio enthusiasts were glad of the opportunity of making themselves

# The Case for Radio in Rural Outposts

## Editor-Announcer visits Gisborne

TO make contact with listeners in important rural centres, Mr. J. Ball, Editor-Announcer of the Radio Broadcasting Company, visited Gisborne, where he was given the opportunity of addressing a gathering of 100 radio enthusiasts.

"I came here this evening to tell you something concerning the inauguration, operation, and ideals of the New Zealand Broadcasting Co.," said Mr. J. Ball, reports the "Poverty Bay Herald." The proceedings were broadcast by Station 2ZM.

Mr. Ball stated that the company at the outset did not seek a national service. All that Mr. Goodfellow had in mind at first was the provision of a broadcasting service for the benefit of farmers in the Waikato district. When he approached the Government with this suggestion he was asked to consider the matter from a national point

of view. There had been many months of negotiation towards this end, but no one had been found willing to undertake the enterprise on the Government's terms. After some hesitation, Mr. Goodfellow agreed to do so on condition that Mr. A. R. Harris, an expert in whom he had the fullest confidence, would act as co-director and general manager, and that a license was issued on terms equally satisfactory to themselves and to the Government. Mr. Harris signified his willingness to co-operate, with the result that operations were commenced.

### An Arduous Responsibility.

"JUST here let me express my personal opinion that the agreement under which the company faced this arduous responsibility embodied terms to which very few business men would willingly subscribe," added Mr. Ball. "Only men possessed of a strong sense of community service, and inspired with the ambition to create, to achieve, to accomplish something worth while more for the satisfaction of having accomplished it than for any material gain which might accrue from accomplishment, would have accepted under such conditions the burden involved. They undertook to establish, maintain, and conduct a national broadcasting service for a specifically limited dividend (when earned) of 7½ per cent., it being stipulated that any and all profit in excess thereof must be devoted to the improvement and extension of the service, which service they were bound to operate under strict Government regulations."

### Splendid Services.

"I HAVE no hesitation in publicly declaring that the company has more than faithfully fulfilled its trust," continued the speaker. "It is giving listeners to its four big stations three times the length of service called for under the agreement, and I need scarcely tell you that in broadcasting as in any other enterprise time means money. I want you to realise what this means. The directors are giving three times the hours of service which they undertook to give; they have built and equipped four modern transmission stations, one of them a super-power station, infinitely more costly than the agreement specified; established an efficient staff organisation; consistently improved the standard of broadcast programmes; and formulated a definite policy designed in time to give New Zealand one of the most complete and efficient broadcast services in the world."

Some idea of the "straw" required for the making of broadcast pro-

grammes was given by Mr. Ball, who said that the minimum cost of running a half kilowatt station on a proper basis, without any charge for talent, was estimated at £8000 a year. "Add to this for talent a minimum of £10 a day for six days a week—over £3000 a year—plus a further £1000 for copyright charges, relays, and other expenses, and you have an estimated minimum of £12,000 a year. For a five-kilowatt station, as is 2YA, Wellington, the estimated minimum total cost may be figured at about £14,000, plus say £4000 for talent and £1500 for copyright, relays, and incidental expenses. This estimate, while allowing for depreciation and interest, makes no provision for a sinking fund. The significance of these figures is that a revenue of at least £55,000 is required to do justice to the four stations."

### Programmes Criticised.

REFERRING to psychology in relation to programmes, Mr. Ball said that all broadcasting programmes were subject to a good deal of adverse criticism. "So, by the same token, are the programmes of the B.B.C., which has at its command the world's best artists," continued the speaker. "Here we have a most convincing demonstration of the utter impossibility of pleasing the entire broadcast audience. The psychological explanation is as simple as it is obvious—the infinite variety of human tastes. Allan Wilkie comes with a Shakespearean repertoire, and all good lovers of Shakespeare's plays flock to his performances and are delighted. An outstanding exponent of classical music stages a recital and finds an appreciative audience in people who find enjoyment in that class of music. Williamson's put on musical comedy knowing full well that musical comedy appeals to a large section of the community. Fuller's specialise in vaudeville and draw the appreciative patronage of those who favour that kind of entertainment. And so on. Each sphere of entertainment claims its own votaries. But the broadcast programme goes on the air to all and sundry, and it is a moral certainty that from overture to anthem it is jarring either one or other of these variegated tastes. The very best the organiser of a broadcast programme can hope to do is to please some of the listeners some of the time."

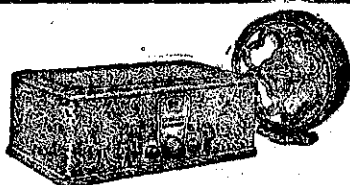
### Reception in Poverty Bay.

RADIO reception in Poverty Bay was then dealt with by Mr. Ball. "Unfortunately I am unable to speak to you as an expert on the technical side," he said, "but I gather from the company's electrical experts that fading, particularly the type where the music becomes fuzzy and distorted, is very rarely due to any fault at the transmitting station. This irregularity always appears after dark, and is more prevalent in winter than in summer. Moreover, it has been noticed that the greater the power of the station the more it is subject to 'night distortion.' Our engineers have deduced a rule which seems to work out very well in practice, and it is this: If a listener is situated more than 150 miles from a station and he gets good daytime reception from the station, the signals will practically be certain to be subject to distortion fading at night."

"The exact cause of fading is not definitely known, but there is a generally accepted theory which in practice accounts for most of the peculiarities we observe," he explained. "When a station transmits a signal the wave travels outwards in two directions. One portion hangs on to the surface of the earth and is known as the ground wave, while the other portion travels upwards and outwards and away from the earth. Surrounding the earth is the atmosphere, which gets more rarefied as the height increases, until a point is reached at which its density becomes negligible. This extremely thin atmosphere forms a layer round the earth known as the 'heaviside layer,' and is the cause of all the trouble."

"When the sun's rays are shining on this layer an electrical action is set up which causes the layer to be more or less electrically conducting. In the daytime, therefore, the waves which reach this 'heaviside layer' from the transmitting station, are absorbed. At night-time, however, no absorption takes place, and the signal is reflected back again to the earth. The ground wave is, of course, unaffected by day or night conditions and is quite constant, but if we add to this another wave from the same station such as one reflected from above—and one which has probably travelled

(Concluded on page 5.)



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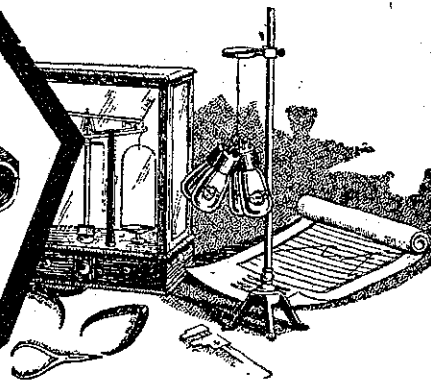
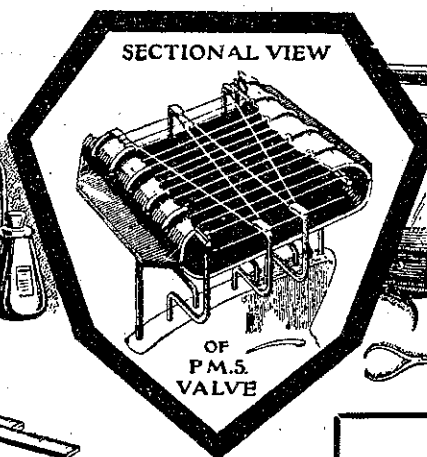
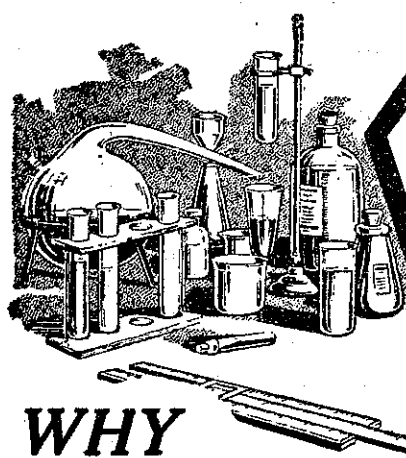
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# Broadcast Music for Coming Week

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Kindling within the strings of the waved air—  
Aeolian modulations."

—Shelley.

By  
Bolton  
Woods

## A Phenomenal Memory.

PERHAPS the most distinguished Russian composer, who does not work on very advanced "modernist" lines, is Alexander Constantinovich Glazounof, who was born in St. Petersburg in 1865, and was a composer at 18. He is a master of orchestration, and in his ballets and other light pieces he has produced music which follows in the Tchaikovsky tradition, and yet has individuality of its own. Glazounof's phenomenal musical memory is a great asset. "The Seasons," a suite for orchestra, was originally written for a ballet. In the theme and variations belonging to winter, the variations are entitled Hoar, Frost, Ice, Hail, and Snow, and Autumn is represented by a Bacchanal and a little slow movement.

The 3YA Broadcasting Trio will play "Autumn and Winter" from the Suite

"The Seasons," by Glazounof, on Monday, June 17.

## A Bit of Merrie England.

STERNDALÉ BENNETT'S Pastoral "The May Queen" has the ever-popular Robin Hood as one of its characters. The bold Greenwood King claims sweet welcome from the May Queen, who, however, is fortunate in that her lover is at hand to defend her. He attacks Robin Hood just as the Queen arrives. She demands to see the brawlers, and recognising Robin Hood, reprimands him for stooping to a village maid. She reunites the May Queen and her lover, telling the girl never again to trifle with true love. The dainty trio, "The Hawthorn in the glade," is sung by the May Queen, the lover, and Robin, the latter describing the charms of the forest life, and the lover telling the

maid to stay away from it. "'Tis Jolly to Hunt" is Robin's solo, and describes the various citizens who keep of their best for him.

Mr. Ray Kemp will sing "'Tis Jolly to Hunt," and the Etude Trio "The Hawthorn in the Glade," at 2YA on Friday, June 21.

## A Giant in Love.

THE plot of Handel's Pastoral Opera "Acis and Galatea" is very simple. The shepherd Acis and the sea-nymph Galatea were lovers, but the giant Polyphemus also fell in love with Galatea. He hurled a rock at Acis and killed him, but Galatea used her supernatural powers to restore Acis to life, and made him a god. "I rage, I melt, I burn," is the recitative sung by the giant, and tells of his love, and the following solo describes Galatea's beauty. The lines are a little grotesque, but are what one would imagine a giant would compose as a love lyric.

Mr. John Prouse will sing "I Rage, I Melt, I Burn," and the solo "O Ruddier than the Cherry," at 2YA on Monday, June 17.

## The French Sullivan.

THE opera "Veronique" was first produced in Paris in 1898, and later in London and New York. The composer, Andre Messager, was a pupil of Saint-Saens, and was for some years director of the Opera-Comique in Paris, and later artistic director at Covent Garden. He wrote over twenty operas and ballets, including "Scaramouche" and "Monsieur Beaucaire." He began his career as a dramatic composer by completing Bernicat's comic opera "Francois les Bas-Bleus," and his work in this was so well spoken of by the critics that he commenced his first original three-act opera "La Fauvette du Temple." Although his tastes were entirely classic, he was sympathetic to the new school, and helped to bring about the acceptance of the score of "Pelleas and Melisande," which he was the first to conduct, and which was dedicated to him by the composer, Debussy.

Miss S. Staepoole and Mr. F. Sutherland will sing the duet "Trot Here and There," from "Veronique," at 1YA on Friday, June 21.

## A Blind Woman Composer.

IN Vienna in 1764 the public were very sorry to hear that the charming little daughter of one of the imperial councillors, and God-daughter of the Empress Maria Theresia, had gone blind. Though only five years of age, Maria Theresia von Paradis showed great promise as a musician, and after studying under the foremost musicians for some years, she was able to undertake a grand concert tour in 1784, and played at the courts throughout Europe. She wrote an opera, a fairy play, a vaudeville, and numbers of songs and instrumental pieces. She

died in 1824, having been for many years a leading teacher of the piano-forte and singing.

The 1YA Studio Trio will play "Pastel Minuet" by Paradis, on Tuesday, June 18.

## "Summer Night."

IN 1874 Emile Durand accepted as a pupil a young Englishman aged 24, Arthur Goring Thomas. The young man progressed quickly, and was soon a brilliant pupil. He was later a pupil of Sullivan and Prout at the Royal Academy, his first great success being the winning of the Lucas prize in 1879. He composed several operas, cantatas, and songs, and died in London in March, 1892. His most popular song is "Summer Night."

Miss Dulcie Mitchell will sing Goring Thomas's "Summer Night" at 3YA on Wednesday, June 19. Miss Ivy Stanton will sing it at 2YA on Thursday, June 20, and Miss Mollie Andrews will sing it at 4YA on Friday, June 21.

## The Best Revolutionary Tune.

THE celebrated French patriotic song, "The Marseillaise," was written and composed by Claude Joseph Rouget de l'Isle in the night of April 24, 1792. The volunteers stationed at Strasbourg had received orders to join Lukner's forces, and Mayor Dietrich expressed his regret to de l'Isle, a captain in the engineer corps, that the soldiers had no marching song. The following day the song was sung at the Mayor's house, arranged for a military band, and first performed on April 29. It was sung at a banquet at Marseilles in June of the same year, and it was so popular that copies were circulated among the troops who were leaving for Paris. When they marched into the capital city singing the new song it became immensely popular, and acquired its new name.

"The Marseillaise" will be sung as a vocal quartet on the Waterloo Evening at 4YA on Wednesday, June 19.

## The Russian Gopak.

THE Gopak is a lively Russian dance with two beats in the bar, one of which it is easy to imagine being danced by Russians, in the open air, wearing their winter boots. It is full of that kind of energy which suggests strenuous exercise and cold weather. "The Fair of Sorotchinsk," from which this dance is taken, is an opera founded on one of Gogol's Russian stories, which Moussorgsky left unfinished at his death. The dance opens with a few introductory bars, and then the lively tune is taken up, and grows to a boisterous climax, dying away without slackening speed.

The Woolston Brass Band, under the conductorship of Mr. R. J. Estall, will play Moussorgsky's "Gopak" at 3YA on Monday, June 17.

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# THE D.X. CLUB

Views and News.

## Excellent Daylight Reception.

I HAVE not heard a new American for weeks now, and no new stations to report, so DX has not been too kind to me. Wednesday, May 29, was a really good night with me, and I had the following stations on the speaker at wonderful strength:—KFOX, KNX, 30. This is the best strength I have ever had from three stations in one night. They came through with as much volume as 2YA. I notice that the Americans close down an hour earlier now; they must be on their daylight saving time; this will give the DX-hunters a very early start. The following, taken from the DX Club Notes in the "Radio Doings" (American magazine):—"Mr. A. Autumn reports as follows: I have heard 2YA with good volume twice. I heard him sign off at 2 a.m. (A.M.T.), February 3, playing 'God Save the King,' with clarity and almost the volume of a local station." This listener is located in the centre of Hollywood, and uses a six-valve set with water-pipes for a ground. This speaks well for our super-station. I can tune in 2FC, Sydney, lately at full speaker strength, any time of the day, and have received cards from 2FC verifying my reception at 12 noon, Sydney time. Any listener on the West Coast should be able to tune in 2FC with ease now that winter has come. I can hear the following stations any afternoon:—1YA, 2YA, 4YA, 3ZC, 3YA, 1ZQ, 2ZF, and 2YB, at good speaker strength all on a five-valve set.

IN answer to Mr. E. B. Boyd (Waverley), the station I can trace is 5DN, Adelaide, operated on 313 metres, and 3YA, 306 metres. This is my reception for the week on a five-valve set:

June 1: Logged in 4ZO at 5.55 p.m. and they signed off at 6 p.m.; a new station to my log. At 6.30 I logged in the Americans as follows: KGER, KFOX, KEX, KEJK, all on speaker, but static was troublesome at this stage, so I closed down.

June 2: No reports on DX.

June 3: Logged in 2FC at 8.30 p.m. on their early morning news session, signed off at 9.30 a.m. Also at 11.5 a.m. 3YA broadcasting races. At 6 p.m. the following: KFOX, KNX, KEX, KEJK, KFWB, KHJ, KGO.

June 4: At 8.45 a.m. 2FC, as usual, at full speaker strength. Listeners on the west coast of New Zealand should make a practice of trying for 2FC, as conditions are excellent at this time. 2BL at weak speaker strength at 3.30 p.m.; 3ZC, 4YA all on speaker in the evening. The usual Americans were heard; no new ones to report.

June 5: As usual, 2FC and 2BC in morning and 1YA at 11.30 a.m., and a station above 3YA on about 312 metres on bedtime stories, with a lady speaking. Who is this stranger. Can anyone help me? Could it be an American. At 1.15 p.m. a station on 256 metres on dance music, closed down at 1.30 p.m. Who is this stranger Then

in evening logged in three new Yanks, KHM, Santa Monica, California, on 384 metres; KMIC, 267 metres, Inglewood, California; KGFJ, 211 metres, Los Angeles. I have sent away report on reception of these stations.

June 6: Static was too bad for DX. Did not listen-in. Cheerio.—S. ELLIS (Okato).

## The Round World Two.

I THOUGHT that my experience in working "The Round the World Two" would interest some readers. Stations received on short waves are: VK2MB, KDKA, Pittsburg; DCH, Germany; W2XAF, America; PCJ, Holland; KGO (short-wave), California. Amateurs: ZL2GA (Wanganui), 3ZC (Christchurch), ZL 2GO (Wellington), ZL2GK (Wellington), ZL2BI (Wellington), ZL2BA (Otaki), ZL3BA (Christchurch), ZL3BL (Christchurch), ZL 2AW (Wellington), ZL2AX (Palmerston North), ZL2BE (Hastings).—W. GARRATT (Lower Hutt).

## On 293 Metres.

COULD any listener identify a station on 293 and 294 metres which

## Rural Radio

(Concluded from page 2.)

led a greater distance from the ground wave—a certain interference will be set up between the two received waves, and distortion will result. The upper atmosphere is constantly moving, due to meteorological conditions, and that is why the signals from a station may be clear for a while and then become distorted, due to the ground and reflected waves getting into and out of phase as the angle of the reflected wave varies."

In concluding, the speaker pointed out that the system in operation in New Zealand was at present as up-to-date as any in the world, and the organisation was keyed to a high pitch of enthusiasm.

was broadcasting between the hours of 8 p.m. and 10 p.m. Sunday? During this time a sermon was in progress (Catholic), so no call sign was heard. At about 9.45 2UE came on with organ music, but the stranger was still in the background. Hope of getting call sign was then defeated. There is an Australian station on 294 metres, 4GR, Toowoomba. Could it be this?

Reception was variable, ranging from good speaker strength to inaudibility. A three-valve set (popular kit) was used.—C.W.S. (Khandallah).

## Relay Stations.

IN response to a request from the chairman, the secretary of the Gisborne Listeners-in League, Mr. S. J. Pearson, outlined a local grievance. For some time Gisborne people had been agitating for a better service, he said. They had placed the matter before the Premier and had been assured that Sir Joseph Ward had done his best to further their interests, but for some unknown reason there had been much delay. However, Mr. Ball had promised that, in the event of relay stations being established throughout the Dominion, he would do his best to have the first one constructed at Hastings, where it would be of direct benefit to Gisborne. This, said Mr. Pearson, would amalgamate the East Coast and Hawke's Bay radio listeners.

At the request of the chairman, Mr. Ball then entertained the company for a time with a variety of anecdotes connected with broadcasting, ranging from sparkling humour to pathos.

A hearty vote of thanks was accorded Mr. Ball.

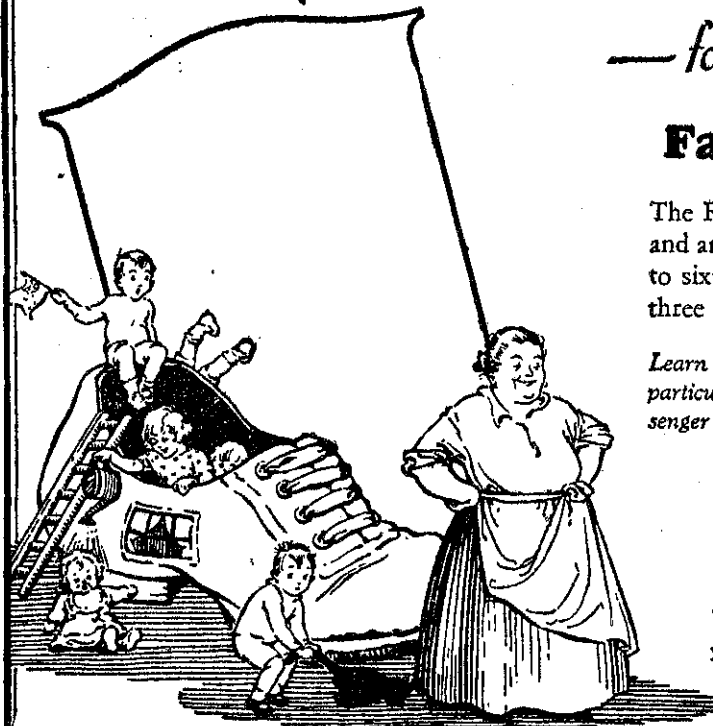
IF the flux from a newly-soldered joint is wiped whilst it is hot it comes away cleanly, but if left until cool it becomes sticky, and it is impossible to remove it from the underside of wires, etc. One of the greatest disadvantages of soldering flux left behind on a joint is that dust will settle upon this in time, and so make a conductive path which may destroy the advantages of correct insulation.

"WHAT A BLESSING  
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The Railways carry Father and Mother and any number of their children up to sixteen years of age for the price of three adult second class return tickets.

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There was an old woman who lived in a shoe.  
She had so many children she didn't know what to do  
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Parents just pay three whole fares for the lot.

# N.Z. RAILWAYS



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

WELLINGTON, FRIDAY, JUNE 14, 1929.

## AN ADVANCE RADIO MOVEMENT.

ON the front page of this issue we outline a proposal which we are confident, if vigorously prosecuted, will lead to a marked advance in radio in New Zealand. A good start has been made with the 1929 radio season. Listeners have renewed on the whole remarkably satisfactorily. This is a welcome proof of their general appreciation of the service aimed to be given through the four YA Stations. It is fully recognised that perfection has not yet been attained. Large areas of New Zealand are not yet in a position to enjoy radio under satisfactory conditions. It is desired that the service shall be expanded to serve more. Expansion will be possible only as revenue grows. Improved programmes are possible only as revenue grows. It is, therefore, fundamentally to the interest of every listener now paying 30s. a year, to secure another listener to supplement his own contribution to the radio service. The effect of that will be to directly stimulate improvement in programmes and improvement in service, for it is the peculiar attribute of the radio service, as at present constituted, that once essential overhead and equipment are provided, extra revenue can be devoted in increasing proportion to programme improvement and enlarged service.

IT is indicated in our cover article that movements are now on foot in Wellington and Dunedin for the holding of Radio Exhibitions. It is sincerely to be hoped that these movements will come to satisfactory fruition. They can be made a focus for much public attention. They will serve at once the object of making contact between trader, prospect, and the broadcasting service. Demonstration will be possible to visitors of what radio means, and comparison will be available between sets of various prices and calibre. Listeners will thereby be able to improve their own knowledge and appreciation of what constitutes good reception under modern conditions. Non-listeners will be able to assess the capacity of radio and see what they are missing. In our view nothing but good can result from the successful prosecution of such exhibitions, and we sincerely hope that the promoters in each case will carry their plans to fruition and later record a very satisfactory outcome.

Burgess Batteries  
are used in all  
big events.

**BURGESS  
RADIO  
BATTERIES**

More Burgess  
Batteries are sold  
in New Zealand  
than any other.

Why?

Why?

## 50,000 Licenses this Year

### A Forward Movement

(Continued from front page.)

au fait with modern progress. Prospective listeners similarly were glad of the chance of inspecting competitive apparatus. The whole effect was to stimulate public interest, energise the trade, and greatly further the general interests of radio as a means of popular enjoyment, culture and refinement.

THE same end will, we believe, be attained in New Zealand if the necessary enterprise and energy are displayed in such an exhibition. Our purpose in outlining the idea is that all parties interested shall co-operate. As indicated, we consider the listeners themselves are as much primarily concerned as traders, the operating company, and ourselves. All stand to gain. If the exhibition is held, then we have no doubt that

enthusiastic listeners will make a special point of not only attending themselves, but bringing with them neighbours who may be induced to become listeners as well. Further, country listeners and country dealers will, we are convinced, take the opportunity of visiting the exhibition. The suggestion has been made that trade interests from all over the country would welcome the holding of a radio dealers' convention at the time. This is an admirable thought, and should be capable of attainment. With the energetic prosecution of an "Advance Radio" movement we see no reason why, with the good start that has been given the 1929 radio season by the prompt and satisfactory renewal of licenses by listeners, a total of between fifty and sixty thousand licensees should not be attained in the near future.

## "God Defend New Zealand"

### Broadcast by 3YA: Interesting Facts

ON Friday evening, June 14, the Valencia Quartet of 3YA will sing "God Defend New Zealand," the words of which were written by Thomas Bracken, and the music composed by John J. Woods, of Lawrence, Otago.

In a recent letter to a Christchurch paper, in answer to a correspondent's inquiry, Mr. Woods tells the history of the anthem and how he came to set the words to music. This was done in the 'seventies. Mr. Woods writes:

"The 'Saturday Advertiser,' a leading Dunedin weekly, offered a substantial prize—open to all New Zealand musicians—for the best 'musical composition' to Bracken's words contained in the anthem 'God Defend New Zealand.' In order to prevent favouritism the music was judged separately by each of the judges, Messrs. Zelman, Zeplin, and Siede, of Australia, who were, as you may be aware, three of the most eminent musicians in the Southern Hemisphere. Although judging separately and independently of each other, the three judges unanimously awarded me the prize.

"The copyright—both of music and words—was conveyed to me by deed by the late Mr. Bracken on behalf of the 'Saturday Advertiser.'

"I, as composer, wrote the music of the composition specially to suit mass singing: that is, for church congregations and other public gatherings, but more especially for school children, to be sung either in unison or as harmonised. The harmonies, you will notice, are simple, but most effective.

"Chas. Begg & Co. (musical publishers) have issued several editions of the anthem, and also have a gramophone record of it sung by Peter Dawson and chorus (London), on the reverse side of the record being the late Prime Minister, W. F. Massey's 'Empire Speech.'

"By command of Queen Victoria a copy of the anthem was lodged at Buckingham Palace, and also played by the naval bands. It was also freely sung in America and elsewhere. It is also freely sung in the south of Otago, etc., and Bishop Whyte (Roman Catholic bishop) issued instructions for it to be sung in all the Catholic diocesan schools."

### An Australian Lady on Sydal. Use Our Booking Offices in Advance

"Since coming to Australia I have been unable to procure your product, and have tried practically every similar mixture, but nothing has ever given me half the satisfaction of Sydal, and so I am writing you to forward me a supply, as I will never be without Sydal again." Sold everywhere in New Zealand. Be sure and try it.

**S-O-S**

TRAVEL IN COMFORT BY  
CAR

WELLINGTON — PALMERSTON  
NEW PLYMOUTH

**Radio in Otago****A Forward Move****Exhibition to be Held**

THE Radio Association of Otago, which owns and operates station 4ZB has, after careful consideration, adopted a number of proposals which are about to be put into operation in the near future, and which will, the association believes, be instrumental in fostering radio in the province of Otago.

In the past Otago has always lagged behind the other provinces in the number of radio licenses. The smaller population is mainly responsible for this, but it is believed that the impetus about to be given by the association will do much to create and sustain greater interest in radio reception.

Briefly enumerated, the association's proposals are as follow:—In the first place, arrangements have been completed to hold a large radio exhibition in Dunedin on July 31, August 1 and 2. It is anticipated that the exhibition will be a big and important event, and it will be conducted along the latest lines. The public will have the opportunity of seeing assembled a magnificent display representing the most modern developments in radio, both in complete multi-valve sets, speakers, batteries battery eliminators and all other accessories.

The entertainment side of the exhibition will command special attention, and many features bearing directly upon broadcasting are being arranged. It is yet too early to give full details.

IN the near future 4ZB will be very much more in evidence. It is the association's intention to increase the output of the station by constructing a new transmitter of greater power, increase the height of the aerial, and finally to install and furnish an up-to-date studio.

The association intends shortly to broadcast every Thursday evening (when 4YA is silent) a first-class programme comprising important relayed concerts and many novelties. The services of many leading artists have been promised.

In the third place the Otago Radio Association is going to inaugurate public meetings in order to increase the association's membership, an eminently suitable hall is being secured and the meetings will take place once each month.

These public meetings are going to be run on entertaining lines, minus long lectures upon uninteresting subjects. The evening will be divided up into short sessions, during which will be heard short lectures by authoritative speakers on: "How to Get Better Reception," and other vitally important problems, items from the stage by well-known local broadcasting artists, dealers, demonstrations, social chat, supper and other attractions.

A special children's party is also contemplated at which Big Brother Bill and the uncles and aunts at 4YA will be invited to meet the kiddies.

**2YA Heard Nightly by Byrd Expedition****An Appreciative Message from Antarctica****Request for Latest American Song Hit**

SPEAKING from 2YA on Saturday, June 1, the announcer said that a radiogram had been received from the Byrd Antarctic Expedition. The message, which had been received by the "Eleanor Bolling" at Port Chalmers and posted to 2YA, read:—

The members of the Byrd Expedition wintering on the Ross Ice Barrier, in the Antarctic, listen to your programmes from nine-thirty New Zealand time, until 2YA signs off. The programme is tuned in after "Taps" has sounded down here and all the boys are tucked away in their sleeping bags. It brings to us pleasant memories of a delightful visit to Wellington and the hospitality of the people of New Zealand that we so much enjoyed.

For the past two months we have heard repeated references over the radio to a new American song hit, entitled "Button Up Your Overcoat. You Belong to Me." If this has found its way to New Zealand, the boys would like to hear it some night.

From the bottom of the world we send cordial good wishes and renew our appreciating of your nightly programmes.

THE announcer then took the opportunity of replying "to our American friends frozen in for the long winter night near the South Pole." He said:—

"Hullo, Antarctica! Hullo, Little America! We thank you, Commander Byrd and the members of the expedition, for your radiogram. It pleases us to learn that you listen in nightly to 2YA, New Zealand, and your message brings home forcibly again to people what a wonderful annihilator of space and what a wonderful maker of friends radio is. We all now realise much more fully how intimately in touch we are with you. New Zealanders are deeply interested in your expedition and read almost daily in the press the cablegrams received from New York of your winter activities in the "Home of the Blizzard," where all our cold winter winds come from. In regard to the song you mention, we are fortunate in having just received a recording from America. The record is one of the latest Brunswick releases just sent to us direct from the States. This is the first copy of the song available in New Zealand. We will broadcast the record this evening and again next Saturday. We are glad that 2YA is received so well in Antarctica, and at a future date we will be pleased to stage a special American programme for you fellows at Little America. In the meantime we send you greetings from New Zealand and wish you good luck. We can assure you that everyone in this country is following the fortunes of your expedition."

AT 10.17 o'clock on Saturday night, June 8, in response to Commander Byrd's request, the desired gramophone record was broadcast by 2YA, Wellington. To make doubly sure that the Byrd expedition would obtain the fullest pleasure from the item it was repeated. As it happened the record had arrived only a few days before from America. It will be repeated at 10.15 o'clock next Saturday night. Mr. S. Davies, Director of Station 2YA, Wellington, also had a message of goodwill broadcast to the expedition on Saturday night.

**Whangarei Concert****Fine Programme for June 16**

LISTENERS throughout New Zealand will be greatly interested in the concert which is to be relayed from Whangarei on Sunday evening, June 16. The Whangarei Band, which is a very fine combination of instrumentalists, under the baton of Mr. A. Dobson,

L.A.B., L.T.C.L., has arranged an excellent programme.

The items by the band will be: Overture, "Punchinello" March (Rimmer); fantasia, "A Sailor's Memories" (Hawkins); selection, "Pirates of Penzance" (Sullivan); trombone novelty, "A Slippery Success" (Chasette); selection, "William Tell" (Rossini); march, "Grand Procession" (Hawkins).

During the evening there will be vocal items by Mrs. A. Dobson (soprano), Mr. F. R. Baines (bass), and elocutionary numbers by Mrs. Griffin. There will be violin solos by Mr. B. K. Bretnall, L.L.B.

**Back to Waterloo****4YA's Unique Programme****Conan Doyle's Play**

ON Wednesday evening, June 19, 4YA will take listeners back to the early days of last century when the Napoleonic wars were raging. The programme has been built up round Conan Doyle's one-act play, "Waterloo," which, presented with full effects and musical background, will make a particularly realistic radio production.

The occasion approximates the anniversary of Waterloo, one of the decisive battles in the history of the world. Besides the play, the songs have been specially selected for the occasion, all reminiscent of the time.

As an introduction to the evening's programme, the announcer will give a brief account of the historical events leading up to Waterloo. Then will follow Tschaikowsky's famous overture, "1812," descriptive of Napoleon's retreat from Moscow. It was on this event that the song of "The Two Grenadiers" was founded. The disaster of 1812 paved the way for the fall of the curtain in 1815.

At the close of the "1812" overture, there will be a trumpet call by C.S.M. T. J. Kirk-Burnnand, "The Rouse." Then will follow a duet, "The Battle Eve," and a trumpet solo, "The Trumpeter."

The characters in "Waterloo" will be:—Nora Brewster, Miss Anita Winkel; Corporal Gregory Brewster, Mr. F. H. Lampen; Sergeant A. McDonald, Mr. F. M. Tuohy; Colonel James Midwinter, Mr. Allan Young.

Introduced into the play will be "The Marseillaise," sung by the Four Aces, a new vocal quartet.

"The Veteran's Song" (baritone solo), "Pomp and Circumstance" (march), "The Deathless Army" and "Rule, Britannia" (solos with chorus), "The Last Post" and "Reveille" (sounded by C.M.S. T. J. Kirk-Burnnand) will conclude the "Waterloo Evening."

**Maori Radio Pageant****Another Production at 2YA**

Thursday, August 1, has been fixed as the date for the presentation of this year's "Radio Pageant of the Maori Race." All listeners will remember what a most interesting entertainment was given in February, 1928, by a contingent of Maoris from the Wanganui district, and it is good news to learn that a production of a similar nature is again being arranged.

Have you secured your copy of "N.Z. Radio Listener's Guide?" Dealers and Booksellers 2/6; Post Free 2/9—P.O. Box 1032, Wellington. Now Available.

## Waikato Relay

### Greatly Appreciated

WRITING in the "Waikato Times"

"Static" says:—"Wireless broadcasting in New Zealand is no longer considered a novelty and a luxury, but is part of the life of the country. The birth of the New Zealand Broadcasting Company, brought about by the foresight of Mr. Wm. Goodfellow, whose object was the stronger unity of the Waikato farming community, has developed along national lines. The terms under which the company now labour, however, cannot be said to foster a progressive policy. The percentage of each license which is annexed by the Government leaves the Broadcasting Company only a small margin to work upon, when the high administration costs, due to the singular geographical formation of the country are taken into consideration. The work the company is undertaking certainly calls for a substantial subsidy from the Government.

"It is only through the co-operation of artists, we are told, that the Company has been able to keep going and cater efficiently to the public demand for high-class entertainment. So capably has the company fulfilled its contract to the Government that it stands high among those countries where broadcasting is controlled on the most up-to-date lines. At present the broadcasting authorities are giving three times the length of service called for under the agreement, and this point is worthy of special note when occasion arises for criticism of programmes.

"The Government contract has some time to run, but it is understood that a comprehensive policy has been submitted to the new Government, which, if agreed upon, should revolutionise wireless broadcasting throughout New

Zealand. The proposal provides for a number of relay stations in various parts of both islands not directly served by big stations or B class stations. If this objective is realised thousands of homes will be enabled, with crystal receivers, to enjoy the great boon of wireless. A relay station in Hamilton would serve a big district and do much to brighten the evenings of a vast number of country homes.

### Winter Show Relay.

"WITH the object of popularising wireless, relays are made of important functions and entertainments, and the broadcast of the official opening of the Waikato Winter Show, proved a great success in this direction. As was only to be expected the numerous speeches were a little blurred in reception but the rest of the programme was heard with clarity in Auckland and Wellington. The broadcast was listened to with considerable interest by local radio fans, who were loud in their praise of the reception. It is regrettable that the expense attached to these relays limits, to a great extent, the scope for this type of broadcast.

"As an advertising medium the value of this broadcast cannot be over-estimated. It has brought more forcibly before the people of New Zealand the important part this great dairy show and important industrial fair plays in the progress of the rich Waikato district. It was largely due to the organising ability of Mr. J. Ball, editor announcer of the company, that the success of the broadcast was due."

REPORTS on the international broadcasts of the sessions of the League of Nations, which are now being tabulated, may lead to the establishment of a regular short-wave radio service for the broadcasting of these

## Mr. Geo. Clayden, Bellringer

A PHOTOGRAPH of Mr. Geo. Clayden, taken against the steeple of the Anglican Cathedral, Christchurch, where, up to the time he left a year or so ago, he had been master ringer for 15 years. Listeners had the pleasure last year of hearing him ring the carillon of bells at the new St. Barnabas Church, Fendalton. Mr. Clayden will give another similar entertainment on Sunday evening, June 16.

Mr. Clayden had long experience in England in bellringing. He rang at



St. Martin's, Birmingham, where he was a member of the Guild of Change-ringers. He rang at Sutton Parish and conducted peals of changering at Lichfield on Staffordshire. He also rang in London. He rang at the opening of the new church at Fendalton. The Fendalton keyboard is one of the latest design, but that at the cathedral, while efficient, is very antiquated. There are eight bells in the carillon at Fendalton and ten at the cathedral.

## Shaw's "Saint Joan"

### First Act from 1YA

ON Friday evening, June 21, Mr. J. F.

Montague will produce Act 1 of Bernard Shaw's play "Saint Joan." This play, it may here be remarked, was broadcast in London in April last by the British Broadcasting Company.

A brief synopsis of the play will be of interest to listeners.

It is the year 1429, when France is paralysed by the English forces, which occupy Paris and the country as far as the Loire. The troops are in despair, when there comes a girl from the district of Domremy. She says that St. Catherine and St. Margaret speak to her every day, and tell her that it is the will of God that she—Joan—shall raise the siege of Orleans and crown the Dauphin King in Rheims Cathedral. The officer to whom she goes for horse and armour is inclined to scoff, but others are stirred by her great sincerity, and persuade him to send her to the Dauphin, if only as a forlorn hope.

News of an angel who has led a handful of men safely through the enemy's lines to see the Dauphin is received with sarcasm at the Court. But the weak, inefficient Charles is flattered, and he insists upon seeing her. Possessed only with her great mission, Joan is quite unabashed by the splendour or the scornful laughter of the Court.

Left alone with her, Charles argues in vain that he wants neither to fight nor to be king, but to be left in peace. Joan is too masterful. In spite of himself, the Dauphin is inspired by her simple faith in his God-sent duty. Deciding to risk everything and follow her lead, he gives the command of the army to the Maid, and the knights swear to follow her uplifted sword in the name of God.

Two months later Joan leads her first great battle at Orleans, where the French troops have been held up for weeks on the south bank of the Loire. By a miraculous change of wind after her prayer to St. Catherine, the French troops are enabled to cross the river, and, attacking the English forces in the rear, obtain a great victory.

## Hutt Valley Concert

Broadcast Performance on  
July 8

THE next concert performance of the Hutt Valley Choral Society will take place on Monday, July 8. This concert will be relayed by 2YA and will, as usual, be a musical treat.

HALF the population of the United States know and appreciate the joy of radio, for there are no less than 9,640,348 receiving sets in that country.

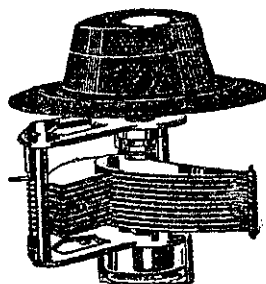
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## Hawke's Bay Notes

(By "X.Y.Z.")

ANOTHER quiet radio week has passed, and again that demon static has prevailed. In fact the past couple of months have been the worst the writer has experienced in nearly four years' listening. Each night finds one tuning in in the hope of "a better night." On some occasions the better night has eventuated, but generally it has been the reverse, and the "fed-up" feeling prevails. However, we'll carry on, and still hope for the better nights to come.

A WORD of praise to 1YA for its transmission of the boxing contests at Auckland on June 3. This reception was well-nigh perfect. One felt as if the man at the ring-side was really in the room. There was nothing to rave over in the ability of the announcer, but he used a great radio voice and managed to keep things interesting.

VISITING Hastings this week is Mr. J. Ball, editor-announcer. He met the Hawke's Bay Radio Society's committee on the 5th and discussed details in regard to the concert to be broadcast on August 22. A skeleton programme was arranged, and if this eventuates as set out, one ventures to predict that it will be equal to any concert ever presented in New Zealand. A rather unique move is also contemplated in regard to the concert, but until details are completed, "mum's" the word. More of this anon.

EVIDENTLY the activities of the Hawke's Bay Society have spurred on the newly-formed Nelson club, for in a letter received this week the secretary of that club expressed the hope that the new club would be as successful as the one in Hastings. We wish them the best.

FOLLOWING the effort being made locally for the erection of a 500-watt relay station, the local society got in touch with the Postmaster-General urging that every facility be granted the R.B.C. to proceed with its proposed scheme for a chain of relay stations. The P.M.G. promptly replied that no obstacle would be placed in the way of the company to get busy, and that the Government was just as anxious as the company to help listeners. Looks as if it's up to the R.B.C. now!

[We imagine that certain business adjustments as to period of operation, scale, etc., are necessary before any large capital expenditure can be undertaken.—Ed.]

WITH conditions as they are now, the improvement cannot come too soon. Except for static and occasional fading, we get good service here from 1YA and 3YA, but with the coming of the summer months these stations will gradually fall off. More often than not, 2YA is difficult here, and as it is really our only station in the summer (until fairly late at least), something should be done before the "longer days and shorter nights" arrive.

SOME time back the R.B.C. assured the local Radio Society that Saturday night dance music would commence at 9.30 p.m. It did—for a while, but now it is a case of any old time. R.B.C. please note.

IN the effort to get satisfactory reception from 2YA up this way, the Hawke's Bay Society was backed up by the Napier Radio Society, and now word comes that the Gisborne Listeners' League will lend their support. This is a sporting offer, for Gisborne is included as a place for a relay station, but they are quite satisfied to leave their claim to last provided a decent 500-watt plant is installed at Hastings. This gives a good indication of the feeling up this way, and with these three bodies in full accord it is up to the company to put on their thinking cap and look for the way out.

## 'Phone from the Air Success Attained

AIRMEN have been presented with the means of speaking from cloudy peaks with their bosses, their sweethearts, or anyone else of the earth-bound millions who have access to a regular telephone instrument. The Western Electric Company demonstrated, in a series of tests for the Press, an invention linking aeroplanes on the wing to the land lines of the commercial telephone system. The first call was put through by an associated Press reporter, who went aloft in the flying telephone booth at 11 a.m. and stayed up until noon. Wearing a regular telephone headset and speaking into a microphone held in his hand, he gave the telephone number of the Associated Press office in New York to the Bell telephone experimental radio station at Whippany, New Jersey, by wireless telephone. A moment later he heard the Associated Press switchboard operator respond, and was switched to the city desk, which in turn handed the call over to a rewrite man, who took the report of the demonstration from the flying reporter.

Though the reporter in the aeroplane was sitting but four feet from the

roaring engine, from which he was separated only by a thin pane of glass, he could hear the people in the New York office as clearly as an ordinary telephone conversation, and his words were plainly audible in New York.

The take-off was made in a driving rain, but the telephone 'plane rode above the storm, and the demonstration was made while 2000ft. over Plainfield, in New Jersey, and while the aeroplane was making about 100 miles an hour.

### Radio Talk from Trains.

Remarkable success that promises to revolutionise travelling on trains is announced by the radio experimental department of the Canadian National Railways, which has succeeded in sending messages from speeding coaches to centres many miles away.

Complete telephonic conversation was maintained in one case for two hours. In that time the train from which the experiment was being made had moved more than 70 miles. The test, hailed as one of the most outstanding in radio discovery of late years, was followed by another remarkable demonstration, when a man spoke over the long-distance telephone on the moving train, his remarks being carried by telephone to C.N.R.T. and broadcast to a radio audience. The broadcast was picked up by the radio receiver set on the observation car on the same train from which he spoke. It was the first time this had been accomplished.



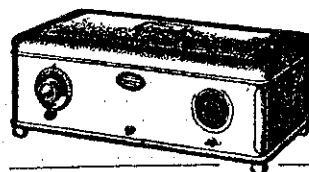
**RADIO** TWENTY years before the first Radio Broadcasting Station was opened, the ATWATER-KENT name-plate on an electrical precision instrument was accepted as a mark of quality.

To-day, on Radio the ATWATER-KENT name-plate is our assurance of your complete satisfaction, for it is the mark of a reputation earned by strict adherence to rigid standards of quality. It is the symbol of our pledge that these standards have not been lowered.

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Will be arriving shortly in three completely Electric Models.

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These new Sets are to be announced in the "Radio Record," and will be obtainable from all Airzone dealers.

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## J. A. SMYTH & CO.,

71 VICTORIA STREET :: WELLINGTON.

## Appeal to the Morse-Men.

IS there no way of stopping the interference caused by morse-key signalling during local broadcasting hours? I have a two-valve amplifier and crystal receiver, and the noise caused by a morse-key in my vicinity causes all music and speech to be distorted beyond recognition. Some weeks back I wrote to the district radio inspector, who informed me the matter would be looked into, but the interference still goes on. I get this buzzing and tapping at all hours, Sundays and holidays included. I have an idea the noise comes from the Mount Cook Barracks station, which is only a few hundred yards from me, and they are the culprits, the sooner they show a little consideration the better I will be pleased. Thanking you and all concerned in the fine performances of 2YA (that is, of course, when I hear it between the buzz-z-z tap-tap-tap).—FAIRPLAY (Wellington).

## Suggestions.

I NOTE that in your issue of May 17 you state that your invitation to listeners "to complain" had only brought one reply. The truth is that there is very little nowadays to complain about, as far as valve-set owners are concerned, at all events, though a little more comedy would be acceptable. I also note that in this week's paper there are complaints as to loss of volume, but this appears to me to be very slight and if anything rather an improvement, as 4QG and 2FC can now be tuned in without any background of distant music from Wellington. As regards 2YB reception here, 50 miles and a clear run, the less said about it the better, although from Christchurch and Wellington it was perfect. The little B class stations of Gisborne, Christchurch, and Dunedin come in perfectly, and though 2YB's wave is strong enough for anything, the voice is either loud and rough or fades into nothingness altogether. In

## 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.

regard to Auckland's "Talks on New Zealand Manufactures," why should 2YA not go one better, and by means of the telephone take us through the various factories on a personally conducted tour, say, every Friday night? Why not through the printing and editorial department of one of the local newspapers before its publication, or into the bowels of one of the mighty steamships at the wharf, the third or fourth engineer is usually a decent chap and would explain everything that the second steward could not tell you about. Then there are factories of all descriptions, butter factories, match factories, boot factories, beer breweries and soda-water factories and hosts of others who would not be averse to such a glorious free advertisement of their wares.

What listeners want is an occasional change from the continual musical treats to which they are so accustomed. A one-act play by two characters alone is always a most happy variety in an evening's entertainment. One thing in particular New Zealand can congratulate itself on, and that is the "children's hour" at the various stations, that could scarcely be improved on.—GEO. FRASER (Ohura).

## The Trial Match.

AFTER listening to the broadcast to-day (June 3) from 2YA of the trial game for All Black honours I was awfully disappointed to find that the R.B.C. had not sent Mr. Allerdycce to Wellington to announce the game. I

do not know Mr. Allerdycce except "over the air," but we all know what a marvel he is at broadcasting a running description of a sporting event. The gentleman who announced the trial game lacks Mr. Allerdycce's ability to follow the ball with a fast-detailed description of every player's movements. Without any disrespect to the 2YA announcer of to-day, I might say that had Mr. Allerdycce been at the "mike" one would have been able at the conclusion of the game to practically select the team for Australia. Might I also suggest that at the commencement of the game the announcer give out the names of the players slowly enough for the listener to put them in their respective positions on paper, as it is then much easier to follow the ball. I do hope the Broadcasting Company can see their way clear to send their fine sporting announcer to special broadcasts of sporting events, as they used to do some two years ago. Thanking the company in anticipation.—"FAIRLIE."

[2YA's customary announcer has been in hospital for some weeks, but is now back at the "mike" for sports events, etc.—Ed.]

## Dinner Sessions.

I WISH to record my appreciation of the dinner music sessions from 2YA. The items are well chosen, but in my opinion are marred by what I would term an unnecessary announcement proclaiming 2YA, Wellington. If this is necessary, could it not be arranged to have the announcement made before the items. Wishing the R.B.C. every success.—J.T.

## Is Two Hours Too Much?

MIGHT I voice my opinion re the broadcasting of football matches for two hours on Saturdays? One complains of missing two whole hours of music per week. Apparently these music fiends and their associates have no consideration for those country folk who look forward to the two hours' broadcasting on Saturdays. As for the "droning-in" of the matches, well, if it is disliked by the fiend, the set can always be switched off for, say, two whole hours per week. And if these music fiends took a little more interest in the game they would understand what those "two whole hours" every Saturday mean to we who naturally appreciate our national game. I suppose a keen follower of the game who lives way back should sit and listen to music week in and week out through the selfishness of the music fiend? No, Sir, let the fiend switch off for those two hours and give the sporting man a chance to enjoy something for his 30s. Wishing the B.C. every success.—D. E. SMITH (Mowai Bush).

## Disgusted!

ON June 5, 3YA, Christchurch, announced that they would relay a concert from the Municipal Concert Hall, commencing at 8 p.m. From then

on until 8.20 all I could hear was a continual unintelligible gabble. To my mind this shows a decided lack of good management on the part of the Radio Broadcasting Company. This lull in proceedings could have been filled in with gramophone selections, or the delay explained by the announcer. The sooner the New Zealand Broadcasting Company take notice of the efficient way the Australian A stations are managed the more popular they will be with the New Zealand listeners.—"DISGUSTED."

## Any Humorists?

JUST a line, please, in appreciation of your witty response to Mr. Mason's diatribe in the current issue. I think that this treatment would point out kindly and yet firmly that some listeners have been denied the power of thought. For my own part, I am a constant listener, on the average, I suppose that the old set is run five nights a week, and has been since 2YA opened. I think that at the present time the company is doing its best to strike the happy medium between the "jazz fiend" on the one hand and the "highbrow" on the other, with the happy result that to a listener who is neither the programmes are most attractive. One point, however, could be improved, I think. The so-called humour that we hear is frequently frightful. Are there no humorists to be obtained? It seems to me that the company would be doing a kindly act to listeners if it took up the matter and looked round for some really good performers in this field. Apart from this, I can find no fault, and consider my 30s. a jolly good investment.—J. HARVEY.

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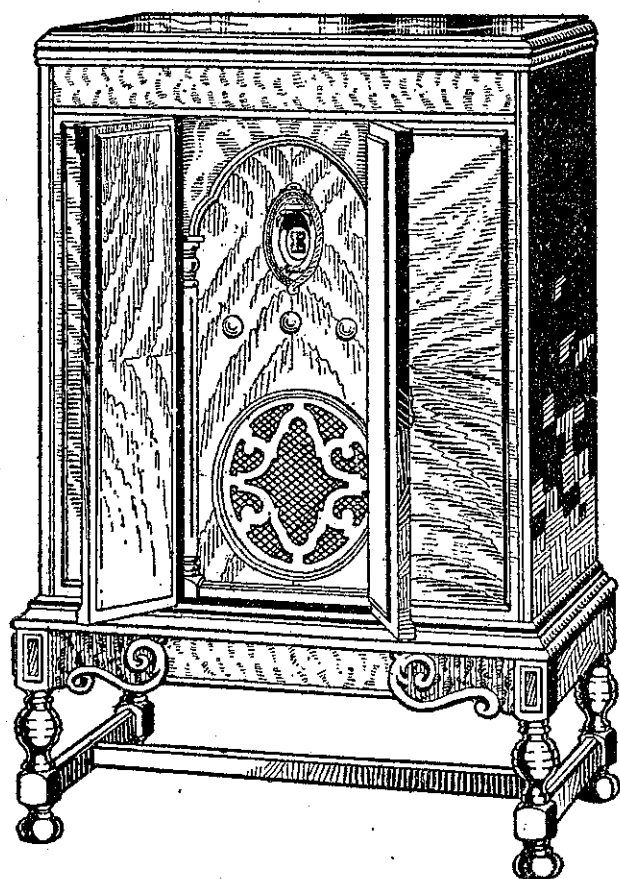
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## In Brief.

**A. BENSEMANN (Nelson):** The Australian programmes arrive too late for publication, and we have not heard of any from Honolulu. Advance Australian programmes are not published by any New Zealand paper.

**"Pentode's" Moving Coil.**

**"PENTODE'S"** m.c. speaker cannot at present stand up to the volume I am able to put into it, writes "H.F.B." (Auckland). It rattles terrifically. Everything is bolted up quite tight. Tone of speaker is lovely, perfectly natural. Perfectly clear reception and very distinct. The moving coil will go right into cone with a bang, and stop there, unless I cut down volume to practically nothing.

A.: Try varying the material of which the centreing device is constructed, and make sure that the end plate of the m.c. is rigid.

**Adapting Transformers.**

**CAN** two audio transformers be converted into push-pull transformers by use of a potentiometer? asks "J.M.N." (Te Mata).—No.

2. What are the best valves to use when depending upon dry batteries for "B" supply?

A.: If the "A" battery is readily rechargeable use valves of the 171A type in preference to the low filament consumption type. These valves require .25 amp. filament current, but are relatively light on "B" batteries. The valves with a lower filament consumption have usually a larger plate consumption and are thus not economical when battery power has to be supplied from block batteries.

3. Do you advise push-pull in the last stage where dry batteries supply the "B" current?

A.: Yes, if valves with a low plate consumption are in use; preferably 171A type. Valves of this type are made by most valve manufacturers and are not confined to the make from which they derive their name—Radiotron.

4. Can you recommend any make of exponential horn speaker?

A.: No. To recommend makes is against our practice.

5. Are the small ones as good as the larger ones?

## Questions and Answers

A.: The larger are usually the better, particularly with regard to the bass notes.

6. Is the round or the square bell the better?

A.: Square bell is usually restricted to the larger type of exponential horn, and the round to the smaller, so that the remarks in the foregoing question apply.

**Power for the Moving Coil.**

**"ELIMINATOR"** (Dunedin) asks particulars as to the number of turns, etc., for a field winding for a home-made dynamic cone to be operated from the 230-volt mains. He asks what kind of rectifier is necessary.

A.: Usually a dry rectifier gives the best results. From these a sufficient current of 6 to 12 volts can be delivered. In other cases, the field is used as an audio choke in an eliminator, which also supplies "B" current to the valves in the set. "Pentode" has expressed his willingness to describe such a piece of apparatus in a future issue.

**Hollow Sounding Howl.**

**A** HOLLOW sounding howl on several different positions on the dial is a trouble encountered by "T.S.E." (Blenheim).

A.: Place a by-pass condenser with a capacity of .001 across the terminals leading to the amplifier or to the telephones, and reduce the detector voltage to about 22½ volts, or the minimum that will make the set oscillate.

2. The correspondent adds: "I have just bought a 45 volt battery, and I would like to know why I get signals three times as loud and much clearer with three run-down 45 volt batteries registering 14 volts altogether, than on the new battery?"

A.: Low voltage on the detector is always preferable to a high voltage except where a high impedance valve is detecting. This would account for the strength of the signals. But another factor has to be taken into consideration. In all proba-

bility the voltmeter is of the low resistance type, the ordinary pocket voltmeter, and that it is passing a great deal of current. This would make the reading appear lower than it actually is. The correspondent then would be advised to reduce his detector voltage and raise his audio voltage. This would probably eliminate the howl referred to in the previous question.

**Broadcast Coils for Shortwave Set.**

**"B.J."** (Christchurch) has asked the number of turns necessary for secondary and tickler to cover the broadcast band of the "Record" shortwave set. The tuning is accomplished by a .000125 condenser with three turns for the primary.

A.: The specifications for the coil tuned with this condenser are: Tickler, 25 to 30; secondary, 100 turns of 22 wire; the primary should be increased to about 20. The condenser is rather small to cover the broadcast band, hence the very large number of turns necessary.

**A Noisy Transformer.**

**I** touch the audio transformer, writes "A.B." (Wadestown) I get a squawking noise in the speaker. I have tried A425 as R.F. with 25 turns primary, but with less volume than with PM3.

A.: Earth the core of the transformer. The better volume from PM3 results because the valve impedance and the primary impedance are matched, more so than when 425 is used.

2. If I make a parallel feed with choke and condenser, could I use 425 or 435 as R.F. to get increased volume?

A.: It could be done, but in attempting a great amount of radio frequency amplification very many troubles are going to be encountered that the Brown-Drake circuit has not forestalled. 435 is a resistance coupled valve, and is unsuitable in the position. Besides making the set unstable, valves with a high amplification factor usually spoil the tone making it harsh. The impedance of a detector should range from 13,000 to 30,000. By going below this, especially if the valve has a high amplification factor, the set is likely to be made unstable.

**A Whistle in the Speaker.**

**"B.T."** (Palmerston North) complained that since he has been using a moving-coil loudspeaker he has been getting a high-pitched note while the set is switched on to "high." At "low" it is not there. It is more pronounced with a 171A type of valve than with the semi-power valve.

A.: It appears that the trouble is originating in the audio amplifier, and that the introduction of valves with more power augments the trouble. The correspondent has not stated how his 6-volt speaker is energised. Presumably it is connected to the accumulator feeding the set. Disconnect this, and, if possible, connect it temporarily to another "A" battery or to a battery charger. If the squeal stops, it can be taken for granted that it is caused by feed-back from the set. A cure in this case is obvious. If another A battery or a charger is not permanently available, try a grid-leak or 100,000-ohm resistance or a .0005 fixed condenser across the secondary of the first audio transformer.

**The Electrolytic Charger.**

**"E.Z.C."** (Palmerston North) has had a rather unusual and baffling experience with the electrolytic rectified described by "Pentode." When the apparatus was connected up, the lamp lit with its usual brilliancy, and did not die down whatsoever. The aluminium had a white coating as it formed, but the process has no effect on the brilliancy of the lamp. In 24 hours it made no impression on a battery. The electrolytes were as pure as could be obtained. After the B batteries had been on for a night the solution took a clouded appearance, smelling exactly as does household ammonia. Different solutions were tried, but in no case were they a success.

A.: From the details, which appear to be quite full, it is almost impossible to state the trouble. Superficially, it would appear as though the solution were not rectifying, but if the rectifier is properly made, rectification must result. To further determine this point, the following questions are put to the correspondent: Does gassing take place during charging, that is, are bubbles rising from one or both the electrodes? Is the lamp dimmer when the battery is connected up? Try reducing the B voltage at each charging, so—by dividing this battery into two parts.

**Annoyed by a Continuous Whistle.**

**A** CORRESPONDENT from Mangaweka writes that he has been trying a PM256 with 150 volts on the plate. From this same tapping he has taken a lead to the screen grid PM14. By doing this he gets a continuous whistle, and unless he reduces the voltage on the PM14 to that of the other audio valves, the whistle cannot be stopped.

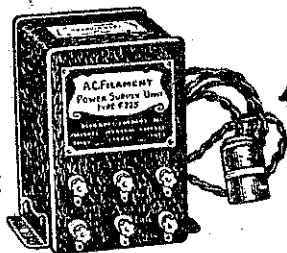
A.: In continuing the correspondent suggests a cure as well as an explanation. Interaction is taking place between the screen grid valve and the power valve. This can be eliminated by trying an R.F. choke in the lead to the screen grid, and by-passing it with a 2 or 4 m.f.d. condenser. It takes quite a little adjustment to get the correct voltage on the grid screen and on the plate of the screen grid valve. When this is not correct, whistle and distortion takes place.

**Oscillation Troubles.**

**"COULD** you enlighten me on the following points?" writes "C.E.P." (Waimate).

1. When attempting to use my V-2 receiver with headphones, I am nearly deafened by a roar. Is this usual, or can it be remedied?

A.: It is quite the usual. When the set uses reaction it can be made very sensitive, and atmospheric noises are boosted up enormously. This followed by two stages of amplification would quite



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account for the noise complained of by the correspondent. If the detector alone were used with phones, this noise would not be present.

2. Should I get the Japanese faintly if I can get stations as 3UZ, 2GB, and 3ZM?

A.: It's rather difficult to state whether or not the Japanese can be received. Probably by judicious manipulation this is possible. The writer has often had JOHK at good speaker strength on three valves, but with a good aerial and earth. Japanese stations with a three-valve set. If the aerial were running in the north-and-south direction, the lead-in on the south end, there would be quite good prospects of getting these stations faintly.

3. Would a stage of tuned radio frequency bring in the above stations any louder and would it get the Americans? If so, could you supply a diagram.

A.: See the "Beginner Corner."

4. On the short-wave, below a dial reading of 20, the set breaks out into a whistle. Can I remedy this?

A.: As the wavelengths are descended the frequencies ascended the set becomes more and more enlivened, and unless detector voltage is reduced, it will burst out into oscillation with very little trouble. This is the case here. To remedy it, reduce the detector voltage.

#### Power for a Dynamic Cone.

"T.C." (Dunedin) states that when he is using his charger a humming sound is evident, and he wants to know whether this would affect his dynamic cone speaker if the charger were used to energise the field. Its highest charging rate is 1½ amperes.

A.: See our article in the "Beginner Corner" last week.

2. Can I get the impedances of valves from the local agent?

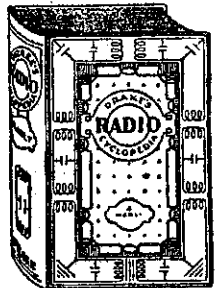
A.: They are usually marked on the cartons of valves, but in any case, all these details are given in the "Radio Listener's Guide."

#### Dry Batteries for "A" Supply.

"L.R." (Dannevirke) inquires whether dry batteries can be used for a six-valve receiver. He has difficulty in charging his A batteries owing to road conditions during the winter.

A.: See the "Beginner Corner."

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# A Corner for Beginners

## Radio Frequency Amplification.

A CORRESPONDENT has asked whether adding a stage of radio frequency will increase the distance-getting ability of his set. If properly constructed, it will. Audio amplification soon reaches a maximum, and adding further valves on this side of the detector introduces numerous troubles such as audio frequency howl, feed-back, etc. To overcome this difficulty a stage of radio frequency is introduced whereby the signals are strengthened up before they enter the detector. To increase the power of the set audio stages may be added until the state detector and two audio (V-2) is reached. Beyond this, further amplification should be accomplished only through an added radio frequency stage. Just at what point to add the radio stage is not certain. Some sets employing three valves use one radio detector and one audio (IV1) and others V-2.

An operator using this latter system who wishes to increase the power of his set can do so only by adding an R.F. stage. This strengthens up the signals before they are detected, but if these strengthened signals are by any chance fed back into the antenna system (aerial system) oscillation or howling valve results. To overcome this, the set must be neutralised so that capacity effect within the valve is prevented from reaching the antenna system by being neutralised by feed-back from the radio frequency coil.

Neutralisation is accomplished by any of three methods:—

1. Tapped secondary.—A lead is taken from the grid of the radio frequency to the fixed plates of the small condenser. The moving plates of this condenser are connected with a tap on to the secondary of the radio frequency transformer. This tap is usually about 18 turns from the filament end. By adjusting the neutralising condenser oscillation is prevented from causing trouble.

2. Split Primary Method.—The essential difference here is that

## The Electrolytic Charger.

A CORRESPONDENT has asked in what issue "Pentode" described the electrolytic trickle charger.

A.: Volume 2, No. 13, November 11, 1928.

## Concerning Portables.

IS it possible to get as good reception with a portable as an ordinary set?—"Portable" (Tauranga).

A.: Our issue last week dealt quite extensively with portables, and a report was published embodying our experimenting with the "Airzone" portable. When such a receiver is to be used as a household set a rechargable A battery should be employed, otherwise battery consumption is heavy.

2. Is there any reason why an all-electric portable cannot be made?

A.: No. In fact, we have advice that a firm will be introducing electric trans-portables shortly.

## Screen Grid Connections.

"W.G." (Lower Hutt) asks for the connections to a horizontal mounting screen grid valve.

A.: At one end there are three pins, the two mounted side by side being the filament, the one below the alignment of the two filament pins is the grid. These three pins will fit into an English base, and in doing so will make contact with the correct terminals. At the other end will be noticed a ridge. Directly above this is a pin—this is the plate. Above this is the screen grid pin. If any English base is fitted on this the plate will go to the usual terminal and the screen grid to the grid.

the lead from the grid is taken to the fixed plates of the neutralising condenser, the moving plates of which are connected with the opposite end of the primary of the radio-frequency coil from the plate. A centre tap is taken to "B plus" R.F. By many it is claimed to be preferable to 1.

3. The Phasatrol.—The Phasatrol consists of a fixed condenser and a variable resistance. The plate of the radio-frequency valve is connected to the resistance and then to the condenser, the other side of which passes to the primary of the R.F. transformer, the other side of the resistance to the primary of the transformer from which the usual lead goes to "B plus R.F." It is usually found that a by-pass condenser of at least .5 m.f.d., connected between "B plus R.F." and earth will greatly improve stabilisation. The radio-frequency transformer has a similar function to the audio-frequency, but there is no core, the wire being wound directly on to an open former. The audio transformer has a metal core. With these exceptions, the connections for radio frequency and audio frequency amplification are the same.

## Dry Cells for "A" Battery.

ANOTHER correspondent has asked if he can run a 6-valve set from dry batteries. He is going to be faced with a difficulty as well as expense. When the receiver exceeds three valves it becomes most uneconomical to supply the filament from dry batteries. The receiver in use is an American make, and is neutralised for American valves, requiring filament consumption of at least 1 amp. These in all but the power stage where say a 3 amp. valve is used, would result in a drain of .75 amperes. This is far too severe for the dry battery, and the

operator would find himself replacing his dry batteries every week or so. The only possible solution would be a wet "A" battery, and valves requiring but little current.

Take, say, six Leclanche cells, connect them together in two groups of three by joining zinc to carbon. This will leave a zinc and a carbon free in each of the two groups. Connect the two free carbons and the two free zincs (zinc to zinc and carbon to carbon). This is series parallel connection, and will stand the greatest drain. It would be advisable even now to use in the last stage a valve requiring none greater than 1 amp. The two zincs and carbons form the negative and positive of the A battery respectively.

Continental valves with a low filament consumption could be used, but these will seriously impair the functioning of the set, in that it will affect the neutralisation. UX199 valves in the radio-frequency stages would be a good compromise. Probably the best valve combination would be two UX199's, UX201A (or 200A, as detector), 201A as first and second audio, and 112A as power valve.

Dry cells could be used in the combination described for wet Leclanche cells. One point worth noting particularly with the wet cells, is that they should be used at the most for three or four hours at a time, and then left to recuperate, for about double the time.

## Technical Tips.

THE basis of most of the crystals used nowadays for wireless receivers is galena.

REALLY high magnification in a valve is an advantage only where the input it is desired to handle is a small one.

A CRYSTAL detector can often be improved by attention to the tightness of the terminal contacts, and also, if of the swivel type, to the ball and socket.

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# Next Week's Features

## 1YA Notes

**THE** Pitt Street Methodist Church will be on the air on Sunday evening. The Rev. L. B. Dalby will be the preacher.

Following on the church service there will be a relay from Whangarei. The concert to be given by the Whangarei Band is to be broadcast. An excellent programme has been arranged by the band, which is a splendid combination, and the best of Whangarei's vocal talent will contribute.

On Tuesday evening Mr. Geo. Campbell will continue his talks on "Motoring."

**EXCERPTS** from many operas—from light to grand—will be on the air on Tuesday evening from 1YA. These will include "To-night's the Night," "Rose Marie," "High Jinks," "Yeomen of the Guard" and "Tristan and Isolde." The vocalists will be Miss Alma McGruer, Miss Beryl Smith, Mr. J. Simpson and Mr. D. Black, who will sing solos, duets and a quartet. "Tristan and Isolde" (final portion) will be presented by means of records, the story being described by Mr. Karl Atkinson.

## You can't Fry over a Valve



But a Radio Set can be a great help to the cook for all that. The other night's broadcast suggested that housewives should send for the new "Anchor" Recipe Folder. Simply write "Anchor," Box 844, Auckland.

## ANCHOR SKIM MILK POWDER

Wednesday evening will be occupied with a three-act play, John Drinkwater's "A Bird in Hand." This will be produced by the Auckland Little Theatre Society under the direction of Mr. Kenneth Brampton. The last radio performance by this Society was strikingly successful, and "A Bird in Hand" should be equally so.

**THE** first of three fine quartets which will be sung by the Lyric Four on Thursday evening will be "Grandfather's Clock." The others will be "Night Winds Flow" and "Afton Water." Solo items will also be sung, these including "Jes Hold My Hand To-night" and "Blow, Blow, Thou Winter Wind." There will also be a duet, "Soldiers and Comrades," and humorous items will be given by Mr. A. McElwain. Assisting the Lyric male voices will be Mrs. A. E. Schade (soprano) singing a Maori song, then "You in a Gondola" and "The Kerry Dance." There will be selections by the Studio Orchestra and by Mr. A. Towsey (pianist).

Another play will be performed at 1YA next week, this one being Bernard Shaw's "Saint Joan" on Friday evening, the actors being the Auckland Comedy Players under the direction of Mr. J. F. Montague, who will also give elocutionary numbers.

**A** FURTHER interesting item on Friday evening will be a talk by Mr. A. B. Chappell, M.A., who will discourse for fifteen minutes on topical subjects. As Mr. Chappell is a leader writer on the "New Zealand Herald," he is au fait with all world happenings, and his new series of talks, which are to be weekly, will be very interesting to all listeners.

**THE** lady vocalists contributing to the musical programme on Friday evening will be Miss Sarah Stacpoole (soprano), singing "Homings" and "Coming Thro' the Rye," Mrs. L. Edwards (contralto), whose songs will be "In An Old-Fashioned Town" and "At Dawning." Mr. Frank Sutherland (bass-baritone) will also be singing, his numbers being "Along the Dusty Road" and "The King's Minstrel." There will be instrumental items by the Studio Trio and by Miss Molly Wright (celliste).

On Saturday afternoon 1YA will broadcast the results of the Auckland Trotting Club meeting at Alexandra Park, and a description of the Rugby football at Eden Park.

**SEVERAL** new artists will appear on Saturday evening, contributing to the radio vaudeville. Duets will be sung by Mr. T. Scott and Master Jack Cameron, and solos, tenor and soprano, will be rendered by the same artists. Popular bass songs will be sung by Mr. E. Green, and Miss R. Speed will be heard in elocutionary numbers. There will be novelty items by the Bohemian Duo and ukulele solos by Mr. Harding. There will be selections by the Studio Orchestra.

## 2YA Notes

**THE** service conducted in St. Thomas's Anglican Church on Sunday evening will be broadcast by 2YA. The preacher will be the Rev. C. V. Rooke. Following on the church relay the concert to be given in His Majesty's Theatre by the Wellington Municipal Band under Capt. T. Herd will be broadcast.

**MONDAY** evening's programme will be one of merit and of interest. The Studio Orchestra will open with the overture "Italians in Algiers" (by Rossini) and will also play during the evening Massenet's "Scenes Pittoresques," "Rubinstein's 'Reve Angelique,'" a piece entitled "Schubert's Sketch Book" and Moszkowski's "Three Spanish



MISS MOANA LAURENCE,  
Of 3YA—soprano.

—Steffano Webb, photo

Dances." Mr. H. Temple White will give a brief recital on the organ of the Taranaki Street Methodist Church. The pianoforte soloist for the evening will be Miss Patricia Clayton, who will play "Cuban Dances," by Cervantes. Miss Clayton was to have played some weeks ago, but unfortunately she had to cancel her engagement at the last moment, owing to her being indisposed.

**THE** vocalists for Monday evening will be Miss Monica Malfroy (mezzo-soprano), Mrs. T. Treacey (contralto), Mr. Oliver Foote (tenor) and Mr. John Prouse (baritone). Mr. Norman Aitken, the popular elocutionist, will recite an excerpt from "Julius Caesar"—"Cassius instigating Brutus," and a humorous number: "The Bus Conductor."

**ON** Tuesday evening the usual light "popular" programme will be given. The Studio Orchestra will play

the "Nell Gwynn" Overture, a selection from the "Ballet Egyptien," "Two Light Syncopated Pieces," by Coates, and "The Dance of the Sun Feast" (by Waller). Mr. E. W. Robbins will be heard in several tenor solos and Miss Dorothy Russell, a pleasing young soprano who is making her radio debut, will sing two popular numbers from "The Maid of the Mountains." Mr. L. W. Probert will play a xylophone solo, "Splittin' Kindlin' Wood," by Hacker. Mr. Jack Wilkinson will contribute to the humorous portion of the programme and popular fox-trot songs will be rendered by Mr. Edward Silver.

**THE** Wellington Municipal Tramways Band will contribute the major portion of the programme on Thursday evening. Their items will include the popular overture "Pique Dame," an Intermezzo, "The Wedding of the Rose," a humorous fantasy, "Three Blind Mice," Alford's popular "Lightning Switch," and a selection from "The Mikado."

The vocal portion of the programme will be contributed to by the Mellow Fellows Male Quartet and Miss Ivy Stanton (contralto). Two humorous sketches will be given by Madame Eugenie Dennis and partner.

**ON** Friday evening the Etude Quartet will present vocal gems from grand opera, comic opera and musical comedy. Mr. and Mrs. Albert Russell will have charge of the humorous portion of the programme and in their capable hands this section will be one that will give satisfaction to all listeners. The orchestral items will be the overture to Flotow's opera, "Martha," selections from "Samson and Delilah," "The Student Prince," and from Offenbach's operas. The concluding item will be a selection from "The Mikado."

**SATURDAY** evening's programme will be given by the 2YA Revue Company and the orchestra. Since their last appearance before the microphone the 2YA Revue Company have been augmented and this will enable the party to give listeners a varied and entertaining programme. The orchestral items will be "The High School Cadets"

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March," the "Dornroschin Waltz," and a musical comedy selection, "Queen High." The orchestra will also play several dance novelties. The usual dance programme will conclude at 11 p.m.

### 3YA Features

ON Sunday evening the service to be held in St. Barnabas Church, Fendalton, will be preceded by a session of chimes on the church bells, rung by Mr. George Claydon.

ON Monday evening, at 7.30, Mr. Chas. Buckett will give a lecture on "People a Physical Culturist Meets."

The band portion of the evening's entertainment will be provided by the Woolston Band under Mr. R. J. Eustail. One of the most popular programmes will be presented. The assisting vocalists will be Miss Myra Edmonds, Miss Marjorie Nelson, and Mr. Theo. E. Turner (baritone), while Miss Lily Hughes (a daughter of Mr. W. M. Hughes, late Prime Minister of Australia) will give elocutionary numbers. Instrumental numbers will be played by the Studio Trio.

ON Wednesday evening the first part of Act III of Wagner's great opera "Tristan and Isolde" will be presented at 3YA. Mr. W. H. Dixon, who told the story of "Rigoletto" will describe the plot of "Tristan and Isolde." Excerpts from "Rose Marie," the very popular musical play, will also be featured on Wednesday evening's programme. The vocalists will be Miss Lillian Hanham, Miss Dulcie Mitchell, Mr. H. Blakeley, and Mr. J. Graham Young. This should be a particularly enjoyable evening, for, in addition to the "Rose Marie" numbers there will be some excellent miscellaneous items by the same vocalists, and selections by the Studio Orchestra under Mr. Harold Beck. The records will comprise orchestral numbers, a violin solo by Kreisler, "Indian Love Call," flute quartet, a grand organ solo, and a male voice quartet.

THURSDAY'S programme will open with Tschalkowsky's famous "1812 Overture." Then will follow a programme of ballads and concerted singing, the vocalists being Madame Gower Burns, Miss Dorothy Spiller, Mr. Ernest Rogers and Mr. J. Flier. The solos will include "Kissing Time," "Betty's Garden," "My Dearest

Heart," "Revenge," "Come Into the Garden, Maud," "The Last Watch," and "Shipmates O'Mine." There will be three duets, "A Night in Venice," "Sunbeams," and "Excelsior," a trio, "Soldier Rest" and a quartet "Sweet and Low." There will be selections by the Studio Trio and by Mr. Harold Beck, 'cellist.

ON Friday evening solos will be sung by Mr. Bernard Rennell, Mr. Robert Allison, and Miss Lottie Colville, while duets will be sung by the Rose and Thistle Duo, at the piano with banjo. All the songs will be well known and popular. Humorous items will be given by Mr. George Titchener and there will be instrumental numbers by Miss Irene Morris (violiniste) and by the Studio Trio. A dance music session will follow.

THE programme on Saturday evening will be a two-hours' vaudeville entertainment provided by the Revellers' Concert Party.

### 4YA Features

ON Monday evening the first part of Act 3 of Wagner's great opera, "Tristan and Isolde," will be presented. The story of the opera will be fully described. Contributing to the supporting programme will be Miss Roma Buss, singing "Charming Chloe," "The Dove" and "Bless You"; Mr. L. E. Dalley, singing the "Flower Song" (from "Carmen"), and "A Farewell"; Mr. F. M. Tuohy, whose numbers will be "Thanks Be to God" and "A Bachelor Gay." Messrs. Dalley and Tuohy will sing the duet, "Watchman, What of the Night?" There will be instrumental items by the Studio Trio. Miss Joyce Hould, elocutionist, will recite "The Storming Party," "Lorraine Lorce" and "Admiral's Orders."

ON Tuesday evening at 7.30 there will be an interesting lecture on "The Location and Destruction of Icebergs." Dr. Hocken, of the W.P.A., will be the speaker.

FOR the St. Kilda Band recital on Tuesday evening, Mr. James Dixon, the conductor, has arranged one of the band's best radio programmes. The assisting vocalists will be Miss Phyllis Clare (contralto) and Mr. Les Stubbs (baritone), while the elocutionary numbers to be given by Mr. Carl Moller will be "Men of the British Race's and "If We Only Knew." Vocal numbers will also be introduced by means of gramophone records.

THE 4YA Harmonists will open their vocal programme on Friday evening with the singing of the beautiful lament, "Coronach," arranged by Sir Granville Bantock. Another concerted number by the party will be "Summer is Gone" (by Coleridge Taylor). Solos will be sung by Miss Mae Matheson (soprano), Miss Mollie Andrews (mezzo-soprano), Mr. H. A. Johnson and Mr. F. M. Tuohy. Mr. Lester Moller will recite "The Rider at the Gate," a selection from "As You Like It" and "New Zealand" (by Pember Reeves). There will be instrumental items by the Studio Trio and by selected records.

On Saturday evening, 4YA will relay 3YA's programme.

### 2YB Notes

(By "Modulator.")

2YB, New Plymouth, has now settled into its stride, and some very successful programmes have been put over. In addition to the entertainment sessions, successful relays have been given of the football matches played at Pukekura Park. These relays are to be a regular feature on Saturday afternoons during the football season. On Saturday evenings a comprehensive summary is given of all the matches played in the province, and also those of the four centres.

On the programme side the future holds some good things in store for listeners. A novelty programme in the form of a Free and Easy night is to be given shortly. The "Gloom Chasers" will present the revue "Baye Jove" for listeners' approval on June 19. "Modulator," who has seen this show, assures you it is "good."

A SCOTTISH night is scheduled for June 26, when listeners of Scottish blood will be stirred by song and music from north of the Tweed. Included in the programme will be the "playing-in" of the haggis.

A MOST ambitious entertainment is in course of preparation in the form of a Maori night. The native members of the community are entering wholeheartedly into the scheme, and the programme promises to equal, if not exceed in merit, anything of the kind so far attempted in New Zealand. The possibilities of a land-line relay of this programme suggest further laurels in the cap of the R.B.C.

2YB is giving a really wonderful service for a B class station, and is losing no opportunity that presents itself in securing items of interest to listeners, be they topical news or novel entertainments. The station is reaching out with a vengeance. Reports of good reception have been received from all over New Zealand, from Dargaville to Invercargill. In Australia reception has been reported from Queensland, New South Wales and Victoria, in a number of cases on three-valve receivers.

The latest reports have been received from South Australia, one from Ninnis, 80 miles north-west of Adelaide, another from Pimba reports reception in

daylight "lounder and better clarity than 2YA."

Mr. A. J. Papps, the North Taranaki Radio Society's sports announcer, is giving general satisfaction, and easily holds his own with the announcers at the YA stations.

### Public Trust Office

#### A Record Year

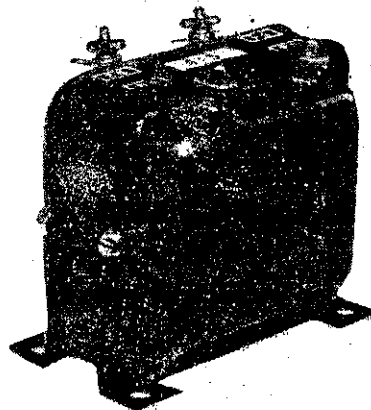
ALL previous records were broken by the Public Trust Office in their operations for the year ending March 31, last. The value of estates under administration was returned as £48,334,790, a nett increase of more than £4,000,000 for the year. New estates accepted for administration during the year totalled £7,091,350—a striking proof of a growing desire on the part of the public to take advantage of the facilities offered by the Public Trust Office for the conduct of trustee business.

Further wills are being deposited by the public at the rate of 500 to 600 every month, which indicates a remarkable confidence on the part of the public in the department. A feature of administration which appeals to testators is the right in appointing the Public Trustee their executor to have an advisory trustee or trustees associated with him in the administration of their estates. This system is working admirably.

The sum lent by the office during the year was £3,190,642. Several offices have been enlarged during the year, and continued effort directed to economic management. The year's profits amounted to £29,467, which was satisfactory in view of the concessions in rates returned to the public. It is not the policy of the office to seek large profits, but to return the advantage of efficient administration to clients.

### A Dangerous Practice

SOME months ago there was evidence that somebody in Wellington who did not possess a transmitter's license was sending Morse, much to the annoyance of broadcast listeners. The penalty for transmitting without a license in Australia is "Five hundred pounds, or imprisonment, with or without hard labour, for a term not exceeding five years."



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# Full Programmes for Next

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## Sunday, June 16

### 1YA, AUCKLAND (333 METRES)—SUNDAY, JUNE 16.

- 3.0 p.m.: 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 Pitt Street Methodist Church:  
     Preacher: Rev. L. B. Dalby.  
     Organist: Mr. Bickerton.  
     Choirmaster: Mr. Leatherton.  
 8.30 (approx.): Relay from Whangarei of concert by the Whangarei Band.  
 10.0: Close down.

### 2YA, WELLINGTON (420 METRES)—SUNDAY, JUNE 16.

- 3 p.m.: Afternoon session—selected studio items.  
 6.0: Children's song service, conducted by Uncle George.  
 7.0: Relay of service from St. Thomas' Anglican Church, Wellington South:  
     Preacher: Rev. C. V. Rooke.  
     Organist and Choirmaster: Mr. W. Gatheridge.  
 8.15 (approx.): Relay from His Majesty's Theatre of recital by the Wellington Municipal Tramways' Band under the conductorship of Captain T. Herd).  
 Close down.

### 3YA, CHRISTCHURCH (306 METRES)—SUNDAY, JUNE 16.

- 3.0 p.m.: Afternoon session—Selected gramophone items.  
 4.30: Close down.  
 5.30: Children's song service.  
 6.15: Chimes of the church bells (Bellringer, Mr. G. Clayden).  
 6.30: Relay of service:  
     Preacher: Rev. H. S. Leach.  
     Organist and Musical Director: Mr. Alfred J. Merton.  
 7.45: Gramophone recital from the Studio.  
 8.15: Rebroadcast of 2YA, Wellington (relay from His Majesty's Theatre of concert by the Municipal Tramways' Band, under the conductorship of Captain T. Herd).  
 Close down.

### 4YA, DUNEDIN (463 METRES)—SUNDAY, JUNE 16.

- 3 p.m.: Town Hall chimes.  
 3.1: Afternoon session—Selected gramophone items.  
 4.30: Close down.  
 5.30: Children's song service, conducted by Big Brother Bill.  
 6.30: Relay of service from Moray Place Congregational Church. Preacher:  
     Rev. A. Mead. Organist: Mr. Towns. Choirmaster: Mr. McMillan.  
 8.5: Relay from His Majesty's Theatre of concert by the St. Kilda Band,  
     under the conductorship of Mr. James Dixon.  
 9.15: Close down.

## Monday, June 17

### 1YA, AUCKLAND (333 METRES)—MONDAY, JUNE 17.

SILENT DAY.

### 2YA, WELLINGTON (420 METRES)—MONDAY, JUNE 17.

- 3 p.m.: Chimes of the G.P.O. clock.  
 3.1: Selected gramophone items.  
 4.30: Relay from Messrs. Kirkcaldie and Stains Tearooms, of music by the Trio.  
 4.0: Studio items.  
 4.30 and 4.55: Sports results to hand.  
 5.0: Children's session, conducted by Uncle Jeff.  
 6.0: Dinner session:  
     Overture—National Symphony Orchestra, "Die Fledermaus" (Strauss)  
     (Zonophone Record EF25).  
     Soprano solo—Lucrezia Bori, "Ciribiribin" (waltz song), (Pestalozza)  
     (H.M.V. Record DA900).  
 6.12: Tacet.

- 6.15: Violin solos—Fritz Kreisler, (a) "Shepherd's Madrigal" (Kreisler);  
     ("Gypsy Caprice" (Kreisler) (H.M.V. Record DB1110).  
     Soprano solo—Lucrezia Bori, "Il Bacio—The Kiss" (Arditi) (H.M.V.  
     Record DA900).

6.28: Tacet.

- 6.30: Orchestral—New Light Symphony Orchestra, "Three Spanish Dances"  
     (Granados): 1. Orientale. 2. Andalous. 3. Rondalla Aragonest  
     (H.M.V. Records C1553/4).

6.43: Tacet.

- 6.45: Orchestral—New Light Symphony Orchestra, "Triana" (Albeniz)  
     (H.M.V. Record C1554).

Choral—Sleever Choir, "The Blue Danube" (Strauss) (Parlophone Re-  
 cord A5019).

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: Overture—Orchestra, "Italians in Algiers" (Rossini).

8.9: Mezzo-soprano solo—Miss Monica Malfroy, "Black Roses" (Sibelius).

8.13: Pianoforte solo—Miss Patricia Clayton, "Cuban Dances" (Cervantes).

8.20: Baritone solo with orchestral accompaniment—Mr. John Prouse, reci-  
     tative and aria, (a) "I Rage, I Melt, I Burn" (by request); (b)  
     "O Ruddier Than The Cherry" (Handel).

8.24: Recital—Mr. Norman Aitken, "Cassius Instigating Brutus" ("Julius  
     Caesar") (Shakespeare).

8.31: Instrumental—Orchestra, "Scenes Pittoresques" (Massenet).

8.39: Contralto solo—Mrs. T. Treacey, "Recompense" (Sanderson).

8.43: Instrumental trio—Kreisler, Kreisler and Rauchselsen, "Arlesienne—  
     Intermezzo." (Bizet) (H.M.V. Record DB1166).

8.47: Tenor solos—Mr. Oliver Foote (a) "Rosebud" (Drummond); (b) "Eyes  
     that used to Gaze into Mine" (Lohr).

8.53: Instrumental—Orchestra, "Reve Angellique" (Rubinstein).

9.0: Weather report.

9.2: Organ recital—Mr. H. Temple White, (a) "Nocturne in E Flat" (Drif-  
     fell); (b) "Traumerei" (Schumann); (c) "Marche Solennelle"  
     (Mailly).

9.17: Mezzo-soprano solos—Miss Monica Malfroy, (a) "Si Mes Vers Avaient  
     Des Ailes" (Hahn); (b) "The Star" (Rogers).

9.23: Instrumental—Orchestra, "Schubert's Sketch Book" (Urbach).

9.31: Baritone solo with orchestral accompaniment, "Vulcan's Song" ("Phile-  
     mon et Baucis" (Gounod).

9.35: Humour—Mr. Norman Aitken, "The Bus Conductor" (Squiers).

9.41: Baritone and male quartet—Jno. Goss and Cathedral Quartet, (a)  
     "Sally Brown"; (b) "Hanging Johnny"; (c) "Whisky Johnny"  
     (arrgd. Terry) (H.M.V. Record B2381).

9.49: Tenor solo—Mr. Oliver Foote, "There's a Land" (Allitsen).

9.53: Instrumental—Orchestra, "Three Spanish Dances" (Moszkowski).

10.1: Close down.

### 3YA, CHRISTCHURCH (306 METRES)—MONDAY, JUNE 17.

- 3 p.m.: Afternoon session—selected studio items.  
 4.25: Sports results to hand.  
 4.30: Close down.  
 6.0: Children's session, conducted by "Scatterjoy."  
 7.0: News session.  
 7.30: Talk—Mr. Charles Buckett, "People a Physical Culturist Meets."  
 8.0: Chimes.  
     Studio programme by the Woolston Brass Band, under the conductor-  
     ship of Mr. R. J. Estall, and assisting artists.  
 8.1: Medley—Band, "Martial Moments" (arrgd. Winter).  
 8.13: Mezzo-soprano solos—Miss Myra Edmonds, (a) "I Wept, Beloved"  
     (Hue); (b) "The False Prophet" (Scott).  
 8.19: Male voices—Salon Group, "Jeannine, I Dream of Lilac Time" (Gil-  
     bert) (H.M.V. Record EB35).  
 8.23: Instrumental trios—Christchurch Broadcasting Trio—"Allegro Appas-  
     sionata"—"Capriccio" (Reissiger).  
 8.35: Baritone solo—Mr. Theo. E. Turner, "Duna" (McGill).  
 8.39: Foxtrot—Band, "Tangino" (Wood).  
     Waltz—Band, "Persuasion" (Ashton).  
 8.46: Recital—Miss Lily Hughes, "The Song of England" (Noyes).  
 8.51: Soprano solo—Miss Marjorie Nelson, "Voga Voga Gondolier" (Conings-  
     by Clarke).  
 8.55: Bass with chorus—Ivar Andresem, "The Sacred Name of God" ("The  
     Force of Destiny" (Verdi).  
     Soprano with chorus—Meta Seinemeyer, "La Varginr Degli Angeli"  
     ("The Force of Destiny") (Verdi) (Parlophone Record O5010).

# Week-all Stations-to June 23

[Copyright.—These programmes are copyright, but individual daily programmes may be published on day of performance.]

## Tuesday, June 18

### 1YA, AUCKLAND (333 METRES)—TUESDAY, JUNE 18.

- 3 p.m.: Afternoon session—Selected studio items.  
 4.0: Literary selection by the Announcer.  
 4.8: Studio items.  
 4.25: Sports results to hand.  
 4.30: Close down.  
 6.0: Children's session conducted by Uncle George.  
 7.0: News and market reports.  
 7.15: Talk—Mr. George Campbell, "Motoring."  
 7.30: News and market reports.  
 8.0: Chimes.  
 8.1: Relay of overture from Majestic Theatre Orchestra under the direction of Mr. J. Whiteford Waugh.  
 8.11: Vocal quartet—Clarion Quartet, "To-night's the Night—Finale, Act 1" (Rubens).  
 8.15: Instrumental—Studio Trio, (a) "Pastel Minuet" (Paradis), (b) "Pas des Amphores" ("Ballet Callirhoe"—Chaminade).  
 8.25: Tenor solo—Mr. J. Simpson, "Rose Marie" (Friml).  
 8.32: Cinema organ solos—Stanley MacDonald, (a) "Was it a Dream?" (Coslow), (b) "Nicolette" (Batten) (Regal Record G20401).  
 8.38: Contralto solo—Miss Beryl Smith, "Jim" ("High Jinks") (Friml).  
 8.45: Relay of orchestral entr'acte from Majestic Theatre.  
 8.55: Vocal duet—Miss Alma McGruer and Mr. Duncan Black, "Love's Own Kiss" ("High Jinks") (Friml).  
 8.59: Violin solo—Miss Ina Bosworth, "Chanson Louis XIII. et Pavane" (Couperin).  
 9.4: Weather report.  
 9.7: Vocal quartet—Clarion Quartet, "Strange Adventure" ("Yeomen of the Guard") (Sullivan).  
 9.11: Soprano solo—Miss Alma McGruer, "The Bubble" ("High Jinks") (Friml).  
 9.17: Instrumental—Studio Trio, "Hit the Deck" selection (Youmans).  
 9.27: Bass solo—Mr. D. Black, "The Yeomen of England" (German).  
 9.30: Vocal duet—Miss A. McGruer and Mr. J. Simpson, "Indian Love Call" ("Rose Marie") (Friml).  
 9.34: Presentation of the opera "Tristan and Isolde" (Act 3) (Wagner): Second Instalment (H.M.V. Records D1415-17).  
 (Synopsis: The final scene of the last act of "Tristan and Isolde" will be presented this evening. The preceding acts have told how Tristan, a Cornish knight of royal birth, who has fought

### 4YA, DUNEDIN (463 METRES)—MONDAY, JUNE 17.

- 3 p.m.: Town Hall chimes.  
 3.1: Selected gramophone items.  
 4.25: Sports results to hand.  
 4.30: Close down.  
 6.0: Town Hall chimes.  
 6.1: Children's session, conducted by Uncle Allan.  
 7.0: Town Hall chimes.  
 7.1: News session.  
 7.30: Lecturette—Rev. E. S. Tuckwell (under the auspices of the League of Nations Union).  
 8.0: Town Hall chimes.  
 8.1: Overture—Bournemouth Municipal Orchestra, "Pique Dame" (Suppe), (Columbia record 02780).  
 8.9: Tenor solos—Mr. L. E. Dalley, (a) "Flower Song" ("Carmen"), (Bizet); (b) "A Farewell" (Liddle).  
 8.16: Instrumental—4YA Broadcasting Trio, "Aida" Selection (Verdi).  
 8.22: Recitals—Miss Joyce Hould, (a) "The Storming Party" (Conan Doyle); (b) "Lorraine Loree" (Kingsley).  
 8.32: Presentation of the opera, "Tristan and Isolde," Act 3 (Wagner), first instalment. (H.M.V. records D1413/15).

Synopsis: Of all Wagner's achievements "Tristan and Isolde" is possibly the greatest. It is one of the most extraordinary art works ever written, and even to the present time no work has been written which can approach it, even although seventy years have elapsed since Wagner commenced to write it. The theme is Love—a terrible unsatisfied and insatiable love that must wreck all obstacles in its path, even if those obstacles constitute the lovers themselves.

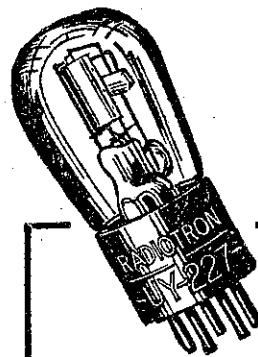
Tristan, a Cornish Knight of royal birth, has fought successfully in Ireland for his uncle, King Mark of Cornwall. He brings Isolde, an Irish princess, as an unwilling bride for the King, but discovers that he himself loves Isolde. They hide their love and her marriage with the King is carried out. But the lovers cannot be denied. During one of their secret meetings the King surprises them, and one of his followers stabs Tristan, who will not defend himself.

The great Third Act, half of which will be presented this evening, comes as a fitting climax to the opera. Nowhere than in this act did Wagner achieve a more vivid expression of deep human emotions. As the act unfolds, the full explanatory story will be told.

- 9.4: Weather report.  
 9.6: Soprano solos—Miss Roma Buss, (a) "Charming Chloe" (German); (b) "The Dove" (Landon Ronald).  
 9.13: 'Cello solo—Mr. P. J. Palmer, "Sonata in C Major" (Handel).  
 9.18: Baritone solos—Mr. F. M. Tuohy, (a) "Thanks be to God" (Dickson); (b) "A Bachelor Gay" (Tate).  
 9.25: Violin solos—Miss Eva Judd, (a) "To the Spring" (Grieg); (b) "Anitra's Dance" (Lengnick).  
 9.30: Recital—Miss Joyce Hould, "Admiral's Orders."  
 9.36: Pianoforte solo—Mrs. Ernest Drake, "The Prince" (Bridge).  
 9.41: Vocal duet—Messrs. Dalley and Tuohy, "Watchman. What of the Night?"  
 9.46: Instrumental—4YA Broadcasting Trio, "Song to the Evening Star" (Wagner).  
 9.52: Soprano solo—Miss Roma Buss, "Bless You" (Crew).  
 9.56: Concerted with orchestra—D'Oyly Carte Opera Company, (a) "Here We Are at the Risk of Our Lives"; (b) "Dance a Cachuca" ("The Gondoliers") (Sullivan), (H.M.V. record D1343).  
 10.0: Close down.



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WELLINGTON.

successfully in Ireland for his uncle, King Mark of Cornwall, brings Isolda, an Irish princess, as an unwilling bride for the King, but discovers that he himself loves Isolda. They hide their love, and her marriage with the King is carried out. But the lovers cannot be denied. During one of their secret meetings the King surprises them, and one of his followers stabs Tristan, who will not defend himself. The great Third Act, the second half of which will be presented this evening, comes as a fitting climax to the opera. Nowhere than in this act did Wagner achieve a more vivid expression of deep human emotions. As the act unfolds, the full explanatory story will be told. Tristan lies dying in his castle in Brittany. He longs to see Isolda once again. When at last she comes, he is delirious and leaps from his couch, dying in her arms. Isolda sings her death-song over his body, and in a transport of passionate love falls lifeless.)

10.6: Close down.

## 2YA, WELLINGTON (420 METRES)—TUESDAY, JUNE 18.

3 p.m.: Chimes of the G.P.O. clock.

3.1: Selected gramophone items.

4.30 and 4.55: Sports results to hand.

5.0: Children's session conducted by Uncle Jim.

6.0: Dinner session:

Overture—Grand Symphony Orchestra, "Der Freischütz" (Weber) (Parlophone Record A4072).

Tenor solo—Derek Oldham, "I Know of Two Bright Eyes" (Clutsam) (H.M.V. Record B2870).

6.13: Tacet.

6.15: Wurlitzer organ solos—Jesse Crawford, (a) "How About Me?" (Berlin), (b) "I'll Get By as Long as I Have You" (Turk) (H.M.V. Record EA499).

Tenor solo—Derek Oldham, "Now Sleeps the Crimson Petal" (Quilter) (H.M.V. Record B2870).

6.25: Tacet.

6.30: Foxtrots—Connecticut Yankees, (a) "Deep Night" (Vallée), (b) "Weary River" (Clarke) (H.M.V. Record EA514).

Soprano solo—Dusolina Giannini, "I Love You Truly" (Jacobs-Bond) (H.M.V. Record DA808).

6.40: Tacet.

6.45: Foxtrots—(a) Nat Shilkret's Orchestra, "A Night of Memories" (Yellen), (b) George Olsen's Music, "Where the Shy Little Violets Grow" (Kahn) (H.M.V. Record EA503).

Comedian—Johnny Marvin, "Sweetheart of All My Dreams" (Fitch) (H.M.V. Record EA506).

6.55: 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: Overture—Orchestra, "Neil Gwynn" (German).

8.9: Tenor solo—Mr. E. W. Robbins, "Nirvana" (Adams).

8.13: Xylophone solo with orchestral accompaniment—Mr. L. W. Probert, "Splittin' Kindlin' Wood" (Hacker).

8.18: Popular songs—Mr. Edward Silver, (a) "Where the Shy Little Violets Grow" (Kahn), (b) "The Wob-a-by Walk" (Warren).

8.25: Ballet Suite—Orchestra, "Callirhoe Ballet Music" (Chaminade).

8.33: Soprano solo—Miss Dorothy Russell, "Love is My Life" ("Maid of the Mountains" (Fraser-Simpson).

8.37: Humour—Mr. Jack Wilkinson, "I'm a Dadda" (Pleasants).

8.44: Bass-baritone solo—Peter Dawson, "Song of the Flea" (Moussorgsky).

8.48: Tenor solos—Mr. E. W. Robbins, (a) "Until" Sanderson), (b) "My World" (Geehl).

8.55: Instrumental—Orchestra, repeat number.

9.0: Weather report.

9.2: Popular songs—Mr. Edward Silver, (a) "The Dusky Stevedore" (Johnson), (b) "That's How I Feel About You" (Davis).

9.9: Instrumental—Orchestra, "Two Light Syncopated Pieces" (Coates).

9.15: Soprano solo—Miss Dorothy Russell, "Farewell" ("Maid of the Mountains" (Fraser-Simpson).

9.19: Humour—Mr. Jack Wilkinson, "It Only Makes Me Love Her All the More" (Weston and Barnes).

9.25: Instrumental—Orchestra, "Dance of the Sun Feast" (Waller).

9.30: "Columbia" Dance Programme:

March medley—H.M. Grenadier Guards, "Martial Moments" arr. Winter) (Columbia 9065).

Foxtrot with vocal chorus—Park Central Hotel Orchestra, "Golden Gate" (Jolson) (Columbia 01350).

Foxtrot with vocal chorus—Ambassadors' Band, "Forty-Seven Ginger-Headed Sailors" (Sarony) (Columbia 01338).

Vocal duet—Layton and Johnstone, "Just Like a Melody Out of the Sky" (Donaldson) (Columbia 01339).

9.43: Tenor solo—Seamus O'Doherty, "The Pride of Tipperary" (Lockhead) (Regal 9029).

Foxtrot—Ambassadors' Band, "I Just Roll Along Having My Ups and Downs" (Trent) (Columbia 01338).

Foxtrot with vocal chorus—Ipana Troubadours, "'S Wonderful" (Gershwin) (Columbia 01306).

Hawaiian trio—"My Hawaii" (Lewis) (Columbia 3606).

10.0: Monologue—Milton Hayes, "Monty Attends a Board Meeting" (Hayes) (Columbia 01106).

Male quintet—Singing Symphonies, "My Ohio Home" (Kahn) (Columbia 01083).

Organ solos—G. T. Pattman, (a) "Polly" (Zamecnik), (b) "Janette" (Williams) (Columbia 01144).

Foxtrot—Debroy Somers' Band, "Without You, Sweetheart" (de Sylva) (Columbia 01249).

10.20: Tenor solo—Hubert Eisdell, "Parted" (Tosti) (Columbia 02598).

Humoresque—Australian Commonwealth Band, "Slidin' Thro' the Rye" (Hawkins) (Columbia G20298).

Piano solo—Gil Dech, "Hallelujah" (Youmans) (Columbia 01205).

Foxtrot with novelty accompaniment—Ukulele Ike, "Chiquita" (Wayne) (Columbia 01265).

Vocal duet—Jack Lumsdaine and Len Maurice, "That's My Mammy" (Perse) (Columbia 01191).

10.45: Orchestral—Columbia Symphony Orchestra, "March of the Toys" (Herbert) (Columbia 02651).

Foxtrot—La Nuovo Orchestra, "Di Napoli" (Italian foxtrot) (Romani) (Columbia 3066).

Waltz—Eddie Thomas's Collegians, "Beautiful Ohio" (Earl) (Columbia 02651).

Waltz—Royal Serbian Tambouritza Orchestra, "Kosovo Waltz" (Columbia 3066).

Male chorus—Sheffield Orpheus Choir, "There is a Tavern in the Town" (traditional) (Columbia 01175).

11.0: Close down.

## 3YA, CHRISTCHURCH (306 METRES)—TUESDAY, JUNE 18.

SILENT DAY.

## 4YA, DUNEDIN (463 METRES)—TUESDAY, JUNE 18.

3 p.m.: Town Hall chimes.

3.1: Relay of instrumental music from the Ritz.

4.25: Sports results to hand.

4.30: Close down.

6.0: Town Hall chimes.

6.1: Children's session, conducted by Big Brother Bill.

7.0: News session.

7.30: Lecturette—Dr. Focken (under auspices of the Workers' Educational Association), "The Location and Destruction of Icebergs."

8.0: Town Hall chimes.

Studio concert by the St. Kilda Band, under the conductorship of Mr. James Dixon, and assisting artists.

8.1: March—Band, "Black Dike" (Greenwood).

8.6: Baritone solos—Mr. Les Stubbs, (a) "What Am I, Love, Without Thee?" (Adams); (b) "Friar of Orders Grey" (Reeve).

8.13: Grand organ solos—Marcel Dupre, (a) "The Swan" (Saint-Saens); (b) "Prelude in E Flat" (Saint-Saens), (H.M.V. record E518).

8.19: Soprano with chorus—Florence Austral, "The Night is Calm" (Sullivan), (H.M.V. record D1506).

8.23: Scottish selection—Band, "Scotia" (Seddon).

8.31: Recital—Mr. Carl Moller, "Men of the English Race."

8.37: Waltz—Band, "Golden Dreamland" (Rimmer).

8.42: Contralto solos—Miss Phyllis Clare, (a) "Shepherds Gay" (Sanderson); (b) "Irish Folk Song" (Foote).

8.49: Baritone and male quartet—Jno. Goss and Cathedral Male Quartet, (a) "Sally Brown"; (b) "Hanging Johnny"; (c) "Whisky Johnny" (arrgd. Terry), (H.M.V. record B2831).

8.52: Intermezzo—Band, "Prelude" (Rachmaninoff).

8.59: Weather report.

9.1: Chorus—Light Opera Company, Gems from "Cavalleria Rusticana" (Mascagni), (H.M.V. record EB27).

9.5: Fantasia—Band, "Rustic Scenes" (Rimmer).

9.15: Baritone solo—Mr. Les Stubbs, "The Lute Player" (Allitsen).

9.19: Hawaiian—Iahona Glee Club, "Na 'Ehi" (Kuahiwi), (Columbia record 01259).

9.22: Overture—Band, "Bohemian Girl" (Balfe).

9.34: Tenor solos—Alfred O'Shea, (a) "The Old Refrain" (Mattullath-Kreiser); (b) "Lilies of Lorraine" (Grey and Connor), (Columbia record 03614).

9.40: Recital—Mr. Carl Moller, "If We Only Knew."

9.47: Contralto solo—Miss Phyllis Clare, "Sacrament" (McDermid).

9.52: March—Band, "Prince of Smiles" (Louka).

10.0: Close down.

## Wednesday, June 19

### 1YA, AUCKLAND (333 METRES)—WEDNESDAY, JUNE 19,

12.30: Relay of community singing from Town Hall.

1.30: Close down.

3.0 p.m.: Afternoon session—selected studio items.

4.0: Literary selection by the Announcer.

4.8: Studio items.

4.25: Sports results to hand.

4.30: Close down.

6.0: Children's session, conducted by Uncle George.

7.0: News and market reports.

7.40: Talk—Mr. Norman Kerr, "Physical Culture."



- 8.0: Chimes.  
 8.1: Orchestral—Orchestre Symphonique de Paris, "Ballet Egyptien—Allegro" (Luigini) (Columbia record 02785).  
 8.5: Presentation of Three-Act Play, "Bird in Hand" (John Drinkwater) by the Auckland Little Theatre Society under the direction of Mr. Kenneth Brampton:  
 Act 1: (The scene is a summer evening in a country Inn "Bird in Hand") bar parlour in the English Midlands. The landlord, Thomas Greenleaf, his wife, Alice, and their daughter Joan, are finishing high tea.)  
 Entr'acte—Orchestra Symphonique de Paris, "Ballet Egyptien—Allegretto" (Luigini) (Columbia record 02785).  
 Act 2: (Bedroom No. 3 at the "Bird in Hand" an hour later. In one bed is Beverley propped up by pillows.)  
 Entr'acte—Orchestre Symphonique de Paris, "Ballet Egyptien—Andante and Finale" (Luigini) (Columbia record 02786).  
 Act 3: (The bar parlour again, the next morning before breakfast, which is laid on the table—the sun streams in through the window, which is bright with flowers.)  
 9.45: Selected gramophone items.  
 10.0: Close down.

**2YA, WELLINGTON (420 METRES)—WEDNESDAY, JUNE 19.**  
 (SILENT DAY.)

**3YA, CHRISTCHURCH (306 METRES)—WEDNESDAY, JUNE 19.**

- 3.0 p.m.: Afternoon session—selected gramophone items.  
 4.25: Sports results to hand.  
 4.30: Close down.  
 6.0: Children's session, conducted by Mother Hubbard and Uncle Frank.  
 7.0: News session.  
 7.15: Talk—Mr. Fredk. Morse, "Roses—The Best Varieties to Grow."  
 7.30: Addington stock market reports.  
 8.0: Chimes.  
 8.1: Presentation of the opera "Tristan and Isolde" Act 3 (Wagner). First instalment (H.M.V. record D1413-15):

Synopsis: Of all Wagner's achievements, "Tristan and Isolde" is possibly the greatest. It is one of the most extraordinary art-works ever written, and even to the present time no work has been produced that can approach it, even although seventy years have elapsed since Wagner commenced to write it. The theme is Love—a terrible unsatisfied and insatiable love that must wreck all obstacles in its path, even if those obstacles constitute the lovers themselves.

Tristan, a Cornish knight of royal birth, has fought successfully in Ireland for his uncle, King Mark of Cornwall. He brings Isolde, an Irish princess, as an unwilling bride for the king, but discovers that he himself loves Isolde. They hide their love, and her marriage with the King is carried out. But the lovers cannot be denied. During one of their secret meetings, the King surprises them, and one of his followers stabs Tristan, who will not defend himself.

The great Third Act, half of which will be presented this evening, comes as a fitting climax to the opera. Nowhere than in this Act did Wagner achieve a more vivid expression of deep human emotions. As the Act unfolds, the full explanatory story will be told.)

- 8.23: Overture—Berlin State Opera Orchestra, "Martha" (Flotow) (H.M.V. record C1506).  
 8.41: Tenor solo—Mr. H. Blakeley, "Rose Marie" (Friml).  
 8.45: Vocal quartet—Salon Quartet, "O Rose Marie, I Love You" (Friml).  
 8.49: Orchestral Studio Orchestra, under the conductorship of Mr. Harold Beck: (a) "Adagio Religioso" (Bohm); (b) "Minuet" (Purcell); (c) "Caprice" (Moszkowski).  
 9.1: Weather report.  
 9.6: Vocal duet—Miss Lillian Hanham and Mr. H. Blakeley, "Indian Love Call" ("Rose Marie") (Friml).  
 9.11: Vocal quartet—Salon Quartet, "Pretty Things" ("Rose Marie") (Friml).  
 9.16: Violin solo—Fritz Kreisler, "Indian Love Call" (Friml) (H.M.V. record DA785).  
 9.20: Vocal duet—Miss Dulcie Mitchell and Mr. J. Graham Young, "Why Shouldn't We?" (Friml).  
 Contralto with quartet—Miss Dulcie Mitchell and Salon Quartet, "Totem Tom Tom" (Friml).  
 9.28: Orchestral—Studio Orchestra: (a) "Carmen" Overture (Bizet); (b) "Toreador's Song" (Bizet).  
 9.38: Vocal trio—Salon Trio, "Only a Kiss" (Friml).  
 9.42: Soprano with quartet—Miss Lillian Hanham and Salon Quartet, "Door of My Dreams" (Friml).  
 9.47: Flute quartet—London Flute Quartet, "Carnival of Venice" (Arrgd. Stainer) (Columbia record 4155).  
 9.51: Contralto solo—Miss Dulcie Mitchell, "A Summer Night" (Goring Thomas).  
 9.56: Orchestral—Studio Orchestra, "Sally" selection, (Kern).  
 10.6: Close down.

**4YA, DUNEDIN (463 METRES)—WEDNESDAY, JUNE 19.**

- 8 p.m.: Town Hall chimes.  
 3.1: Selected gramophone items.  
 4.25: Sports results.  
 4.30: Close down.

- 6.0: Town Hall chimes.  
 6.1: Children's session, conducted by Aunt Anita.  
 7.0: News session.  
 8.0: Town Hall chimes.  
 Special "Waterloo" evening.  
 8.1: A short resume by the Announcer of events leading to the Battle of Waterloo.  
 8.13: Overture—"1812" Overture (Tchaikowsky).  
 8.21: Trumpet call—Company Sergeant-Major T. J. Kirk-Burnnand, "The Trumpeter" (Dix).  
 8.32: Bass solo—"The Two Grenadiers" (Schubert).  
 8.36: One-act play, "Waterloo" (Sir A. Conan Doyle). Vocal quartet, "The Marseillaise."

**Cast:**

Nora Brewster ..... Miss Anita Winkel  
 Corporal Gregory Brewster ..... Major F. H. Lampen  
 Sergeant Arch. McDonald ..... Mr. F. M. Tuohy  
 Colonel James Midwinter ..... Mr. Allan Young

(Scene: A front room in a small house in Woolwich.  
 Time: June of the year 1851 A.D.)

- 9.9: Baritone solo—"The Veteran's Song" (Adams).  
 9.13: March—"Pomp and Circumstance" (Elgar).  
 9.17: Solo and chorus—(a) "The Deathless Army" (Trottere); (b) "Rule Britannia."  
 9.24: Trumpet calls—Company Sergeant-Major T. J. Kirk-Burnnand, "The Last Post" and "Reveille."  
 9.28: "His Master's Voice" dance programme.  
 Fox-trot with vocal refrain, Aaronson's Commanders, "My Scandinavian Gal" (Tobias), (H.M.V. EA460).  
 Fox-trot with vocal refrain, Shilkret's Orchestra, "My Tonia" (de Sylva), (H.M.V. EA478).  
 Fox-trot with vocal refrain, Hamp's Kentucky Serenaders, "What D'Ya Say?" (Brown), (H.M.V. EA460).  
 9.37: Tenor solo—Franklyn Baur, "Marie" (Berlin), (Zonophone EE185).  
 Waltz with vocal refrain, The Troubadours, "Live and Love" (Klages), (H.M.V. EA478).  
 Wurlitzer organ solo—Jesse Crawford, "Me and the Man in the Moon" (Leslie), (H.M.V. EA491).  
 Fox-trot with vocal refrain—Nat Shilkret's Orchestra, "I Still Keep Dreaming of You" (Davis), (H.M.V. EA461).  
 9.49: Bass solo with chorus—Paul Robeson, "Plantation Songs" (H.M.V. C1585).  
 Hawaiian—Kolomoku's Honoluluans, "Aloha-oe" (Liliuokalani), (Zonophone EF23).  
 Fox-trot with vocal refrain—Shilkret's Orchestra, "Cross Roads" (Klages), (H.M.V. EA461).  
 10.0: Relay from the Ritz of music by the orchestra under the direction of Mr. A. Pettit.  
 10.10: Orchestral—London Orchestra, "On With the Show" (Nicholls), (Zonophone 5187).  
 Wurlitzer organ solo—Reginald Foort, "Worryin'" (Fairman), (H.M.V. EA491).  
 10.19: Tenor solos—Walter Glynn, (a) "Jeunesse" (Barry); (b) "I Love the Moon" (Rubens), (H.M.V. B2761).

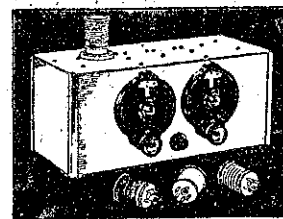
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- Fox-trot—Rhythm Band, "There are Eyes" (Keyes), (H.M.V. EA469).  
 Fox-trot with vocal refrain—Rhythmic Eight, "Saskatchewan" (Gilbert), (Zonophone EE126).  
 Fox-trot with vocal refrain—New Mayfair Dance Orchestra, "Why is the Bacon so Tough?" (Prentice), (H.M.V. EA469).  
**10.35:** Male quartet—Masters Lough and Mallett and Messrs. Dixon and Hastwell, "Drink to Me Only With Thine Eyes" (arrgd. Ball), (H.M.V. B2770).  
 Saxophone duet—Rudy Wlodeoff and Arnold Brillhart, "The Swallow" (Zonophone EE129).  
 Fox-trot with vocal refrain—Aaronson's Commanders, "I'll Get By as Long as I Have You" (Turk), (H.M.V. EA466).  
 Waltz with vocal refrain—The Troubadours, "Dolores" (Grossman), (H.M.V. EA447).  
**10.48:** Accordion with banjo—P. Frosini, "Silver Moon" Waltz (Frosini), (Zonophone EE129).  
 Fox-trot with vocal refrain—McEnelly's Orchestra, "Sleep, Baby, Sleep" (Tucker), (H.M.V. EA466).  
 Waltz with vocal refrain—The Troubadours, "Love Dreams" (Harris), (H.M.V. EA475).  
 Fox-trot with vocal refrain—Geo. Olson's Music, "Sonny Boy" (H.M.V. EA441).  
**11.0:** Close down.

## Thursday, June 20

### 1YA, AUCKLAND (333 METRES).—THURSDAY, JUNE 20.

- 8 p.m.:** Chimes.  
**8.1:** Programme presented by Messrs. Lewis Eady, Ltd. (All pianoforte numbers and accompaniments will be rendered on the Williams "Pla-ola.")  
**8.30:** Talk—Miss Edith Sutherland, "Home Handicrafts."  
**8.45:** Further items presented by Messrs. Lewis Eady, Ltd.  
**4.25:** Sports results to hand.  
**4.30:** Close down.  
**6.0:** Children's session, conducted by Peter Pan.  
**7.0:** News and market reports.  
**7.40:** Talk—Mr. F. M. Hills, "New Zealand Manufactures—Jams and Preserves."  
**8.0:** Chimes.  
**8.1:** Overture—Studio Orchestra, "Potted Overture" (Engleman).  
**8.11:** Vocal quartet—Lyric Quartet, "Grandfather's Clock" (Parkes).  
**8.15:** Soprano solo—Mrs. A. E. Schade, "Akoako o te Rangī" (Kaihu).  
**8.19:** Instrumental—Studio Orchestra, (a) "Dance Macabre" (Saint-Saens); (b) "Tzigane" March (Lacome).  
**8.29:** Tenor solo—Mr. Arthur Ripley, "Jes' Hold My Hand To-night" (Bond).  
**8.33:** Humour—Mr. Allan McElwain.  
**8.38:** Vocal duet—Messrs. H. Richards and E. Thomas, "Soldiers and Comrades" (Gilbert).  
**8.42:** Pianoforte solo—Mr. Cyril Towsey, selected.  
**8.47:** Vocal quartet—Lyric Quartet, "Night Winds Flow" (Atkin).  
**8.51:** Musical comedy selection—Studio Orchestra, "Rose Marie" (Trimpl).  
**9.1:** Weather report.  
**9.3:** Soprano solos—Mrs. A. E. Schade (a) "You in a Gondola" (Clarke); (b) "The Kerry Dance" (Molloy).  
**9.9:** Bass solo—Mr. Ernest Thomas, "Blow, Blow, Thou Winter Wind" (Sergeant).  
**9.13:** Humour—Mr. Allan McElwain.  
**9.17:** Vocal quartet—Lyric Quartet, "Afton Water" (Fletcher).  
**9.21:** Orchestral—Studio Orchestra, (a) "The Little Leaden Soldiers" (March) (Pienne); (b) "Vienna Life" (waltz) (Strauss).  
**9.31:** "His Master's Voice" dance programme:  
 Overture—Coldstream Guards, "Der Freischutz" (Weber) (H.M.V. C1335).  
 Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "My Pet" (Yellen) (H.M.V. EA373).  
 Foxtrot—Ted Weems' Orchestra, "Baby Doll" (Herschler) (H.M.V. EA433).  
 Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "I'm Afraid of You" (Davis) (H.M.V. EA373).  
**9.43:** Entertainer—Will Gardner, "That's Another One Gone" (Darewski) (Zonophone 5079).  
 Vocal duet—Jim Miller and Charlie Farrell, "The Grass Grows Greener" (Yellen) (Zonophone EE100).  
 Foxtrot—Ted Weems' Orchestra, "If You Want the Rainbow" (Rose) (H.M.V. EA433).  
 Foxtrot with vocal chorus—Rhythmic Eight, "You Don't Like It" (Miller) (Zonophone EE96).  
 Waltz—Pennsylvania Orchestra, "Was It a Dream?" (Coslow) (H.M.V. EA335).  
**10.0:** Tenor with violin and piano—Browning Mummery, "Had You But Known" (Denza) (H.M.V. B2756).  
 Hawaiian—Honolulu Serenaders, "Honolulu Stomp" (Pilipo) (Zonophone EE92).  
 Foxtrot—Nat Shilkret's Orchestra, "Dainty Miss" (Barnes) (H.M.V. EA276).  
 Hawaiian—Hilo Hawaiian Orchestra, "Hawaiian Dreams" (Marple) (Zonophone EE56).

- 10.14:** Male voices—The Revellers, "Was It A Dream?" (Coslow) (H.M.V. EA402).  
 Bass-baritone solo, Peter Dawson, "The Admiral's Yarn" (Rubens) (H.M.V. B2661).  
 Wurlitzer organ solo—Jesse Crawford, "Rosette" (Newman) (H.M.V. EA405).  
 Foxtrot—Pennsylvania Orchestra, "The Grass Grows Greener" (Yellen) (H.M.V. EA335).  
 Hawaiian—Hilo Hawaiian Orchestra, "Song of Hawaii" (Bories) (H.M.V. EA276).  
**10.28:** Male quartet—The Rounders, "Chlo-e" (Kahn) (H.M.V. EA402).  
 Foxtrot—Victor Orchestra, "What Do We Do on a Dew-Dew-Dewy Day?" (Johnson) (H.M.V. EA244).  
 Foxtrot—Victor Orchestra, "The Doll Dance" (Brown) (H.M.V. EA181).  
 Waltz—Bert Firman's Orchestra, "Sunset Down in Somerset" (Evans) (Zonophone EE96).  
**10.41:** Tenor solo—Joseph Hislop, "Mary" (Richardson) (H.M.V. DA901).  
 Hawaiian—Hilo Hawaiian Orchestra, "Honolulu Moon" (Lawrence) (Zonophone EE56).  
 Foxtrot—Victor Orchestra, "Plapperette" (Greer) (H.M.V. EA181).  
 Foxtrot—Hamps' Kentucky Serenaders, "Is It Possible?" (Dixon) (H.M.V. EA244).  
**10.54:** Comedian—Clarkson Rose, "I Want to Be Alone With Mary Brown" (Gilbert) (Zonophone 5145).  
 Wurlitzer organ solo—Jesse Crawford, "For Old Times' Sake" (de Sylva) (H.M.V. EA405).  
**11.0:** Close down.

### 2YA, WELLINGTON (420 METRES).—THURSDAY, JUNE 20.

- 3 p.m.:** Chimes of the G.P.O. clock.  
**3.1:** Selected gramophone items.  
**4.30 and 4.55:** Sports results to hand.  
**5.0:** Children's session, conducted by Uncle Len.  
**6.0:** Dinner session:  
 Overture—H.M. Coldstream Guards, "A Musical Switch" (arrgd. Alford) (H.M.V. Record C1580).  
 Tenor solo—Gene Austin, "Weary River" (Clarke) (H.M.V. Record EA512).  
**6.13:** Tacet.  
**6.15:** Orchestral—Dajos Bela Orchestra, "Gypsy Love" waltz (Lehar) (Parlophone Record A4080).  
 Soprano solo—Amelita Galli-Curci, "La Paloma" (The Dove) (Yradier) (H.M.V. Record DA1002).  
 Orchestral—Dajos Bela Orchestra, "You and You" waltz (Strauss) (Parlophone Record A4080).  
**6.27:** Tacet.  
**6.30:** Orchestral—Edith Lorand Orchestra, "The Merry Widow" (Lehar) (Parlophone Record A4071).  
 Soprano solo—Amelita Galli-Curci, "La Capinera" (The Wren) (Benedict) (H.M.V. Record DA1002).  
**6.42:** Tacet.  
**6.45:** Orchestral—Edith Lorand Orchestra, "Tales of Hoffmann" Fantasia (Offenbach) (Parlophone Record A4070).  
 Orchestral—Dajos Bela Orchestra, "The Grenadiers" waltz (Waldteufel) (Parlophone Record A4081).  
**6.57:** Tacet.  
**7.0:** News session, market reports, and sports results.  
**7.40:** Lecturette—Miss Inez Gonnop, "Dancing."  
**8.0:** Chimes of the G.P.O. clock.  
 Studio concert by the Wellington Municipal Tramways Band, under the conductorship of Captain T. Herd, and assisting artists.  
**8.1:** March—Band, "B.B. and C.F." (Hume).  
 Overture—Band, "Pique Dame" (Suppe).  
**8.14:** Harmony—Mellow Fellows, "The Murray Moon" (Stoneham).  
**8.18:** Song—The Baritone Fellow, "A Warwickshire Wooing" (James).  
**8.22:** Intermezzo—Band, "The Wedding of the Rose" (Jessel).  
 Humorous fantasy—Band, "Three Blind Mice" (Douglas).  
**8.31:** Humorous sketch—Madame Eugenie Dennis and partner, "A Lock of His Hair" (Anon.).  
**8.38:** Pathos—The Tender Fellow, "So Blue" (de Sylva).  
**8.42:** Hawaiian—Hilo Hawaiian Orchestra, (a) "Honolulu Sweetheart of Mine" (Davis); (b) "Along Miami Shore" (Snodgrass) (H.M.V. Record EA415).  
**8.48:** Contralto solo—Miss Ivy Stanton, "A Summer Night" (Goring Thomas).  
**8.52:** Song—The Mellow Fellows, "Maori Eyes" (Smith).  
**8.56:** Waltz—Band, "Innocence Dreams" (Pecorini).  
**9.1:** Weather report.  
**9.3:** Cavalier song—The Bass Fellow, "King Charles" (White).  
**9.7:** Only a Tale—The Yorkshire Fellow, "Alf Uggins's Wireless."  
**9.12:** Selection—Band, "The Mikado" (Sullivan).  
**9.21:** Chorus—The Mellow Fellows, "On the March" (MS).  
**9.25:** Humorous sketch—Madame Eugenie Dennis and partner, "Two on a 'Bus" (Swears).  
**9.32:** Humoresque—Band, "The Lightning Switch" (Alford).  
**9.41:** Song—The Tenor Fellow, "In a Bamboo Garden" (Donaldson).  
**9.45:** Contralto solos—Miss Ivy Stanton, (a) "Who Knows" (Ball); (b) "Achal by the Sea" (Lawrence).  
**9.51:** Medley waltz—The Troubadours, "Popular Songs of Yesterday" (H.M.V. Record EB33).



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- 9.55: Part song—The Mellow Fellows, "What Does the Pussy Cat Mean" (Pease).  
 9.59: March—Band. "Hab'nt A Idea" (Neichardt).  
 10.3: Close down.

### 3YA, CHRISTCHURCH (306 METRES).—THURSDAY, JUNE 20.

- 3 p.m.: Afternoon session—selected studio items.  
 4.25: Sports results to hand.  
 4.30: Close down.  
 6.0: Children's session, conducted by Uncle John.  
 7.0: News session.  
 8.0: Chimes.  
 8.1: Overture—Grand Symphony Orchestra, "1812 Overture" (Tschalkowsky) (Parlophone Records A4064/5).  
 8.16: Vocal duet—Grand Opera Duo, "A Night in Venice" (Lucantoni).  
 8.20: Baritone solo—Mr. Jas. Filer, "Revenge" (Hatton).  
 8.24: Pianoforte solo—Miss Dorothy Davies, "Fantasia in D Minor" (Mozart).  
 8.29: Contralto solo—Miss Dorothy Spiller, "Will He Come?" (Sullivan).  
 8.33: Vocal trio—Grand Opera Trio, "Soldier Rest" (Patterson).  
 8.37: Instrumental trio—Christchurch Broadcasting Trio, "Allegro" from "Trio in C Major" (Mozart).  
 8.47: Tenor solo—Mr. Ernest Rogers, "Come into the Garden, Maud" (Balfe).  
 8.51: Soprano solo—Madame Gower-Burns, "Kissing Time" (Needham).  
 8.55: 'Cello solo—Mr. Harold Beck, "Can Ye Sew Cushions?" (Scottish Air) (Rowley).  
 8.59: Vocal duet—Grand Opera Male Duo, "Excelsior" (Balfe).  
 9.4: Weather report.  
 9.9: Orchestral—Grand Symphony Orchestra, (a) "Tales of Hoffman—Entr'acte and Minuet"; (b) "Tales of Hoffmann—Barcarolle" (Offenbach) (Parlophone A4061).  
 9.17: Contralto solo—Miss Dorothy Spiller, "Betty's Garden" (Sanderson).  
 9.21: Soprano solo—Madame Gower-Burns, "My Dearest Heart" (Sullivan).  
 9.25: Pianoforte solo—Miss Dorothy Davies, "Pastorale and Capriccio" (Scarletti).  
 9.32: Tenor solo—Mr. Ernest Rogers, "The Last Watch" (Pinsuti).  
 9.36: Vocal duet—Grand Opera Duo, "Sunbeams" (Landon Ronald).  
 9.40: Instrumental trios—Christchurch Broadcasting Trio, (a) "Serenade" from "A Little Night Music" (Mozart); (b) "Mountain Song" (Grieg); (c) "Second Valse" (Godard).  
 9.50: Baritone solo—Mr. Jas. Filer, "Shipmates o' Mine" (Sanderson).  
 9.54: 'Cello solo—Mr. Harold Beck, "Barcarolle" (Sitt).  
 9.58: Vocal quartet—Grand Opera Quartet, "Sweet and Low" (Barnby).  
 10.2: Close down.

### 4YA, DUNEDIN (463 METRES).—THURSDAY, JUNE 20.

SILENT DAY.

## Friday, June 21

### 1YA, AUCKLAND (333 METRES).—FRIDAY, JUNE 21.

- 3.0 p.m.: Selected studio items.  
 4.0: Literary selection by the Announcer.  
 4.8: Further studio items.  
 4.25: Sports results to hand.  
 4.30: Close down.  
 6.0: Children's session, conducted by Nod and Aunt Jean.  
 7.0: News session.  
 7.40: Talk—Mr. R. Howard-Taylor "Care of the Feet."  
 8.0: Chimes.  
 8.1: Orchestral—New Queen's Hall Orchestra, "Symphony in B Minor" (Unfinished Symphony) (Schubert) 1st Movement Allegro Moderato (Columbia records 02757-8).  
 8.13: Soprano solo—Miss Sarah Stacpoole, "Homing" (del Riego).  
 8.17: Bass solo—Mr. Frank Sutherland, "Along the Dusty Road" (Simpson).  
 8.20: The Auckland Comedy Players under the direction of Mr. J. F. Montague will present Act 1 of the play "Saint Joan" (Bernard Shaw).  
 8.40: Suite—Studio Trio, "Suite Op. 98" (Dvorak).  
 8.50: Contralto solo—Mrs. L. Edwards, "In an Old Fashioned Town" (Squire).  
 8.53: 'Cello solos with orchestral accompaniment: (a) "The Swan" (Saint-Saens); (b) "Lullaby" (Cyril Scott).  
 8.59: Vocal duet—Miss S. Stacpoole and Mr. F. Sutherland, "A Paradise for Two" ("Maid of the Mountains") (Tate).  
 9.3: Weather report.  
 9.5: Talk—Mr. A. B. Chappell, M.A., "Topical Talk."  
 9.20: Instrumental—Studio Trio, "Scherzo" from "Trio Op. 100" (Schubert).  
 9.26: Soprano solo—Miss S. Stacpoole, "Comin' Thro' the Rye" (Old Scottish).  
 9.30: Bass solo—Mr. F. Sutherland, "The King's Minstrel" (Pinsuti).  
 9.34: Grand organ solos—Emil Velazco: (a) "By the Waters of Minnetonka" (Lieurance); (b) "A Perfect Day" (Jacobs-Bond) (Columbia record 01382).  
 9.40: Contralto solo—Mrs. L. Edwards, "At Dawning" (Cadman).  
 9.44: Recital—Mr. J. F. Montague, "Passing Events."  
 9.50: Vocal duet—Miss S. Stacpoole and Mr. F. Sutherland, "Trot Here and There" (Veronique) (Messenger).

- 9.54: Orchestral—Edith Lorand Orchestra: (a) "Liebesfeier" (Weingartner); (b) "Prelude in A Sharp Minor" (Rachmaninoff) (Parlophone record A4040).  
 10.2: Close down.

### 2YA, WELLINGTON (420 METRES).—FRIDAY, JUNE 21.

- 3.0 p.m.: Chimes of the G.P.O. Clock.  
 3.1: Selected gramophone items.  
 3.40: Relay from Messrs. Kirkcaldie and Stains' Tea-rooms of music by the Trio.  
 4.0: Selected studio items.  
 4.30 and 4.55: Sports results to hand.  
 5.0: Children's session, conducted by Big Brother Jack.  
 6.0: Dinner session:  
 Orchestral—(a) San Francisco Symphony Orchestra, "Marche Militaire" (Schubert); (b) Chicago Symphony Orchestra: (1) "Serenade" (Volkman); (2) "Flight of the Bumble Bee" (Rimsky-Korsakov) (H.M.V. record ED9).  
 Tenor solo—Costa Milona, "The Pearl Fishers" (Bizet) (Parlophone record A4073).  
 6.13: Tacet.  
 6.15: Orchestral—Philadelphia Symphony Orchestra, "Nocturne No. 2" (Debussy) (H.M.V. record E507).  
 Organ solo—Paul Mania, "In a Monastery Garden" (Ketelbey) (Parlophone record A4079).  
 6.26: Tacet.  
 6.30: Orchestral—Light Opera Orchestra, "The Mikado" Overture (Sullivan) (H.M.V. record D1172).  
 Tenor and chorus—Derek Oldham and male chorus—"If You Want to Know who we Are" (Sullivan) (H.M.V. record D1173).  
 6.42: Tacet.  
 6.45: Pianoforte solo—Karol Szreter, "Fledermaus" Waltz (The Bat) (Strauss) (Parlophone record A4082).  
 Concerted—Derek Oldham, George Baker, and chorus: (a) "Hark, The Hour of Ten is Sounding"; (b) "Is This the Court of the Exchequer?"; (c) "When First My Old, Old Love"; (d) "All Hail, Great Judge" (Trial by Jury) (Sullivan) (H.M.V. record D1469).  
 6.57: Tacet.  
 7.0: News session, market reports and sports results.  
 7.40: Lecture—Mr. Dan McKenzie, "The Laws of Rugby."  
 8.0: Chimes of the G.P.O. Clock.  
 8.1: Overture—Orchestra, "Martha" (Flotow).  
 8.9: Vocal quartet—Etude Quartet, "Glass of Fashion" ("Tom Jones") (German).  
 8.13: Soprano solo—Miss Gretta Stark, "Waltz Song" ("Tom Jones") (German).  
 8.17: Pianoforte solos—Miss Grace Nach: (a) "Romance" (Schutt); (b) "Prelude" (Rachmaninoff).  
 8.24: Vocal duet—Mrs. Ray Kemp and Mr. Will Hancock, "Home to Our Mountains" ("Il Trovatore" (Verdi).  
 8.28: Humour—Mr. and Mrs. Albert Russell: (a) "Dirty Days Hath September" (Wilcock); (b) "The Joy Germ" (Lyttelton).  
 8.35: Operatic selection—Orchestra, "Samson and Delilah" (Saint-Saens).  
 8.43: Contralto solo—Mrs. Ray Kemp, "Alas, Those Chimes!" ("Maritana") (Wallace).  
 8.47: Tenor solo—Mr. Will Hancock, "Gipsy Song" ("Gipsy Love") (Lehar).  
 8.51: Vocal duet—Miss Gretta Stark and Mr. Ray Kemp, "Of Fairy Wand Had I the Power" ("Maritana") (Wallace).  
 8.55: Selection—Orchestra, "Student Prince" (Romberg).  
 9.3: Weather report.  
 9.5: Tenor with chorus and orchestra, Derek Oldham and male chorus: (a) "If you Want to Know Who we Are"; (b) "A Wandering Minstrel I" ("The Mikado") (Sullivan) (H.M.V. record D1173).  
 9.13: Soprano solo—Miss Gretta Stark, "Silver Star of Love" ("Flora Dora") (Stuart).  
 9.17: Baritone solo—Mr. Ray Kemp, "Tis Jolly to Hunt" ("May Queen") (Sterndale Bennett).  
 9.21: Selection—Orchestra, "Offenbach" (Arrgd. Ansell).  
 9.29: Humour—Mr. and Mrs. Albert Russell: (a) "Love, Come from Your Hiding Place" (Wreford); (b) "In Our Bungalow" (McGill).  
 9.36: Vocal trio—Etude Trio, "The Hawthorn in the Glade" ("May Queen") (Sterndale Bennett).  
 9.40: Chorus and orchestra—D'Oyly Carte Opera Company: (a) "From the Sunny Spanish Shore"; (b) "In Enterprise of Martial Kind"; (c) "O Rapture when alone Together"; (d) "There was a Time, " ("The Gondoliers") (Sullivan).  
 9.52: Selection—Orchestra, "The Mikado" (Sullivan).  
 10.0: Close down.

### 3YA, CHRISTCHURCH (306 METRES).—FRIDAY, JUNE 21.

- 3 p.m.: Afternoon session—selected studio items.  
 4.25: Sports results to hand.  
 4.30: Close down.  
 6.0: Children's session, conducted by "Storyman."  
 7.0: News session.  
 7.30: Sports results to hand.  
 8.0: Chimes.  
 8.1: Rebroadcast of 2YA, Wellington.  
 8.9: Baritone solos—Mr. Bernard Rennell: (a) "Song of the Waggoner" (Breville-Smith); (b) "Cloze Props" (Charles).  
 8.17: Violin solos—Miss Irene Morris, (a) "Waltz" (Brahms); (b) selected.

- 8.23: Vocal duets at piano (with banjolele)—Rose and Thistle Duo, (a) "Sonny Boy" (Jolson); (b) "Here Am I Broken-hearted" (de Sylva).
- 8.31: Entertainer—Mr. Geo. Titchener.
- 8.36: Instrumental—Christchurch Broadcasting Trio, "Allegro" from "Trio in F Major" (Reissiger).
- 8.46: Mezzo-soprano solo—Miss Lottie Colville, "Laugh and Sing" (Drummond).
- 8.50: Saxophone solos—Arnold Brilhart, (a) "Fascination" (Bernie); (b) "Caprice Futuristic" (Malneck) (Parlophone Record A2876).
- 8.56: Popular songs—Mr. Robt. Allison, "Wee Hoose Amang the Heather" (Lauder).
- 9.3: Weather report.
- 9.8: Medley waltz—The Troubadours, "Popular Songs of Yesterday" (H.M.V. Record EB33).
- 9.12: Baritone solos—Mr. Bernard Rennell, "The Dear Little Garden I Love" (Tennent).
- 9.16: Violin solo—Miss Irene Morris, "Romance" (Tours).
- 9.21: Mezzo-soprano solos—Miss Lottie Colville, (a) "His Majesty the Baby" (Chartres); (b) "Big Lady Moon" (Coleridge-Taylor).
- 9.23: "His Master's Voice" dance programme, interspersed with studio items: Foxtrot with vocal refrain—Jack Hylton's Orchestra, "Blue-bird, Sing me a Song" (Davis) (H.M.V. EA448).
- Foxtrot—Shilkret's Orchestra, "My Man" (Pollack) (H.M.V. EA483).
- Waltz with vocal refrain—Jack Hylton's Orchestra, "Spanish Rose" (Pearson) (H.M.V. B5481).
- 9.40: Duet at piano (with banjolele)—Rose and Thistle Duo, "Follow Me" (Soneuscher).
- Foxtrot with vocal refrain—Ted Weem's Orchestra, "Me and the Man in the Moon" (Leslie) (H.M.V. EA490).
- Foxtrot—Ambrose and His Orchestra, "Sweet Sue, Just You" (Young) (H.M.V. EA492).
- Foxtrot with vocal refrain—Geo. Olsen's Music, "I Faw Down an' Go Boom!" (Brockman) (H.M.V. EA490).
- 9.53: Baritone solo—Maurice Elwin, "There's Something About a Rose" (Fain) (Zonophone 5190).
- Foxtrot with vocal refrain—Paul Whiteman's Orchestra, "The Calinda" (Hupfeld) (H.M.V. EA476).
- Waltz with vocal refrain—Jack Hylton's Orchestra, "The Angelus was Ringing" (Damarell) (H.M.V. B5481).
- Foxtrot with vocal refrain—Nat Shilkret's Orchestra, "Gotta Be Good" (Schertzing) (H.M.V. EA489).
- 10.5: Entertainer. Mr. Geo. Titchener.
- Foxtrot with vocal refrain—Hamps' Kentucky Serenaders, "I Fell Head Over Heels in Love" (Parsons) (H.M.V. EA492).
- Foxtrot—Zez Confrey's Orchestra, "Jack in the Box" (Confrey) (H.M.V. EA495).
- Waltz with vocal refrain—Hamps' Kentucky Serenaders, "Japansy" (Bryan) (H.M.V. EA476).
- Waltz with vocal refrain—The Troubadours, "Dolores" (Grossman) (H.M.V. EA447).
- 10.30: Popular songs—Mr. Robt. Allison, (a) "The Lass of Richmond Hill" (Hook); (b) "Mary" (Richardson).
- Male voices—Salon Group, "Jeannine, I Dream of Lilac Time" (Gilbert) (H.M.V. EB35).
- Hawaiian—Hilo Hawaiian Orchestra, "Along Miami Shore" (Snodgrass) (H.M.V. EA445).
- Wurlitzer organ solo—Jesse Crawford, "Roses of Yesterday" (Berlin) (H.M.V. EA443).
- 10.43: Chorus and orchestra—Victor Arden, Phil Ohman, chorus, and orchestra, selections from "Funny Face" (H.M.V. EB28).
- Foxtrot—Warings' Pennsylvanians, "How About Me?" (Berlin) (H.M.V. EA473).
- Foxtrot—Nat Shilkret's Orchestra, "I'd Rather be Blue" (Fisher) (H.M.V. EA483).
- Foxtrot medley—Novelty Orchestra, "Echoes of Ireland" (Zonophone 5066).
- Waltz medley—"Irish Waltz Medley" (Zonophone 5066).
- 11.0: Close down.

## 4YA, DUNEDIN (463 METRES)—FRIDAY, JUNE 21.

- 3 p.m.: Town Hall chimes. . .
- 3.1: Selected gramophone items.
- 3.15: Talk on "Fashions" by Miss Buccleuch of the D.S.A., Ltd.
- 4.25: Sports results to hand.
- 4.30: Close down.
- 6.0: Town Hall chimes.
- 6.1: Children's session, conducted by Aunt Sheila and Big Brother Bill.
- 7.0: News session.
- 8.0: Town Hall chimes.
- 8.1: Orchestral—New Queen's Hall Orchestra, "Symphony in B Minor" (Unfinished Symphony), (Schubert). First Movement—Allegro Moderato (Columbia records 02757/8).
- 8.12: Vocal quartet—4YA Harmonists, "Coronach" (Bantock).
- 8.16: Instrumental—4YA Broadcasting Trio, "Orientale" ("Kaleidoscope"), (Cesar Cui).
- 8.21: Soprano solos—Miss Mae Matheson, (a) "Elegie" (Massenet); (b) "A Birthday" (Cowen).
- 8.28: Recital—Mr. Lester Moller, "The Rider at the Gate" (Maselfeld).

- 8.35: Orchestral—Orchestre Symphonique de Paris, "Ballet Egyptian—Allegro" (Luigini), (Columbia record 02785).
- 8.39: Baritone solo—Mr. F. M. Tuohy, "Till I Wake" (Woodforde-Finden).
- 8.43: Cello solo—Mr. P. J. Palmer, "Valse Apache" (Van Biene).
- 8.48: Mezzo-soprano solos—Miss Mollie Andrews, (a) "A Summer Night" (Thomas); (b) "Cycle of Life" (Prelude), (Landon Ronald).
- 8.55: Orchestral—Orchestre Symphonique de Paris, "Ballet Egyptian—Allegretto (Luigini), (Columbia record 02785).
- 8.59: Weather report.
- 9.1: Orchestral—Orchestre Symphonique de Paris, "Ballet Egyptian—Andante" (Luigini), (Columbia record 02786).
- 9.5: Tenor solos—Mr. H. A. Johnston, (a) "Fuchsia Tree" (Quilter); (b) "Passing By" (Purcell).
- 9.12: Pianoforte solo—Mrs. Ernest Drake, "Melodie" (Rachmaninoff).
- 9.17: Male choir—Lay Vicars of Westminster Abbey, "Stars of the Summer Night" (Cruckshank), (H.M.V. record B2781).
- 9.20: Recitals—Mr. Lester Moller, (a) Selection from "As You Like It" (Shakespeare); (b) "New Zealand" (Pember-Reeves).
- 9.35: Violin solo—Miss Eva Judd, "Frasquita" (Lehar-Kreisler).
- 9.40: Baritone solo—Mr. F. M. Tuohy, "O, Could I But Express in Song" (Malaskin).
- 9.44: Orchestral—Orchestre Symphonique de Paris, "Ballet Egyptian—Finale" (Luigini), (Columbia record 02786).
- 9.48: Vocal quartet—4YA Harmonists, "Summer is Gone" (Coleridge-Taylor).
- 9.52: Orchestral—Orchestre Symphonique de Paris, "L'Arlesienne—Farandole" (Bizet).
- Orchestra and chorus—Orchestre Symphonique de Paris, "L'Arlesienne—Marche des Rois" (Bizet), (Columbia record 01328).
- 10.0: Close down.

## Saturday, June 22

## 1YA, AUCKLAND (333 METRES)—SATURDAY JUNE 22.

- 11 a.m. (approx.): Results of Auckland Trotting Club's meeting at Alexandra Park.
- 2.45 (approx.): Relay description of Rugby football match from Eden Park.
- 4.30 (approx.): Close down.
- 6.0: Children's session conducted by Cinderella.
- 7.0: News session.
- 7.40: Talk—Mr. G. D. Rutter, "Gladioli."
- 8.0: Chimes.
- 8.1: Overture—Orchestra, (a) March, "Mad Major" (Alford), (b) Waltz, "Thousand and One Night" (Strauss).
- 8.11: Vocal duet—Mr. T. Scott and Master Jack Cameron, "Venetian Song" (Tosti).
- 8.15: Ukulele solos—Mr. Harding, selected.
- 8.21: Bass solos—Mr. E. Green, (a) "Roll on, Thou Deep and Dark Blue Ocean" (Stern), (b) "Friend o' Mine" (Sanderson).
- 8.28: Hawaiian selections, (a) Clark's South Sea Islanders, "Good-bye, Hawaii" (Bories), (b) Iahona Glee Club, "Na 'Lii" (Kuahiwi) (Columbia Records 01225 and 01259).
- 8.34: Novelty—Bohemian Duo, (a) "Souvenirs" (Nicholls), (b) "All by Myself in the Moonlight."
- 8.41: Monologue—Miss Rhona Speed, "Swandalaya."
- 8.46: Boy soprano—Master Jack Cameron, "A May Morning" (Denza).
- 8.50: Novelty—Orchestra, "Master Melodies from Famous Light Operas" (Revue 1) (arr. Roberts).
- 9.0: Tenor solo—Mr. T. Scott, "Vagabond" (Ireland).
- 9.4: Weather report.
- 9.7: Orchestral—(a) Flute solo with orchestral accompaniment, "Serenade" (Titi), (b) "Grande Galop" (Liszt).
- 9.17: Vocal duet—Mr. T. Scott and Master Jack Cameron, "When Song is Sweet" (Souci).
- 9.21: Ukulele solos—Mr. Harding, selected.
- 9.27: Bass solo—Mr. E. Green, "The Windmill" (Nelson).
- 9.31: Recitals—Miss R. Speed, (a) "Seaside Gossip," (b) "A Hindoo's Paradise."
- 9.38: Boy soprano—Master Jack Cameron, "Morning" (Speaks).
- 9.41: Novelty—Bohemian Duo, (a) "Beloved," (b) "Blue Ridge Mountain Home."
- 9.46: Hawaiian—Queenie and David Kaili, (a) "Hawaiian March" (Ellis), (b) "Hilo March" (Pale) (Parlophone Record A2372).
- 9.54: Tenor solo—Mr. T. Scott, selected.
- 9.57: Musical comedy selection—Orchestra, "Belle of New York" (Kerker).
- 10.7: "His Master's Voice" Dance Programme: Medley waltz—Troubadours, "Popular Songs of Yesterday" (H.M.V. Record EB33).
- Foxtrot with vocal refrain—Nat Shilkret's Orchestra, "Just a Sweetheart" (Shilkret) (H.M.V. Record EA466).
- Foxtrot—Shilkret's Orchestra, "When Sweet Susie Goes Stealing By" (Kaufman) (H.M.V. Record EA452).
- 10.20: Tenor solo—Lewis James, "Roses of Yesterday" (Berlin) (Zonophone Record EE122).
- Hawaiian—Hilo Hawaiian Orchestra, "Honolulu Sweetheart of Mine" (Davis) (H.M.V. Record EA415).
- Waltz with vocal refrain—Troubadours, "Was It Love?" (Cesar) (H.M.V. Record EA464).



- Foxtrot with vocal refrain—Goldkettes' Orchestra, "That's What Put the 'Sweet' in Home, Sweet Home" (Lowry) (H.M.V. Record EA487).
- 10.32: Tenor solo—Barrington Hooper, "For You Alone" (Geehl) (Zonophone Record 5204).
- Foxtrot with vocal refrain—Goldkettes' Orchestra, "Sweethearts on Parade" (Lombardo) (H.M.V. Record EA487).
- Waltz with vocal refrain—Troubadours, "Another Kiss" (Schertzing) (H.M.V. Record EA489).
- Foxtrot with vocal refrain—Jack Hylton's Orchestra, "In the Woodshed She Said She Would" (Johnson) (H.M.V. Record EA480).
- 10.45: Male trio—Melody Three, "Remember Me to Mary" (Green) (Zonophone Record EE133).
- Foxtrot with vocal refrain—Shilkret's Orchestra, "Jimmy Valentine" (Madden) (H.M.V. Record EA475).
- Selection—New Mayfair Orchestra, "This Year of Grace" (Coward) (H.M.V. Record EB37).
- 10.55: Foxtrot—Rhythm Band, "Teach Me to Dance Like Grandma" (Coward) (H.M.V. Record EA471).
- Foxtrot with vocal refrain—Shilkret's Orchestra, "Gotta Be Good" (Schertzing) (H.M.V. Record EA489).
- Foxtrot—Rhythm Band, "A Room with a View" (Coward) (H.M.V. Record EA471).
- 11.0: Close down.

## 2YA, WELLINGTON (420 METRES)—SATURDAY, JUNE 22.

- 3 p.m.: Chimes of the G.P.O. clock.
- 3.1: Relay description of football match from Athletic Park.
- 5.0: Children's session conducted by Uncle Toby.
- 6.0: Dinner session:  
Foxtrot—Nat Shilkret's Orchestra, "Betty" (Christy).  
Waltz—Hamp's Kentucky Serenaders, "Where is the Song of Songs for me?" (Berlin) (H.M.V. Record EA502).  
Tenor solo—Maurice Gunsky, "Girl of My Dreams" (Clapp) (Zonophone Record 5140).
- 6.10: Tacet.
- 6.15: Waltz—The Troubadours, "Carolina Moon" (Davis).  
Foxtrot—George Olsen's Music, "When the World is at Rest" (Davis) (H.M.V. Record EA494).  
Tenor solo—Richard Tauber, "I Kiss Your Hand, Madame" (Erwin) (Parlophone Record AR1017).
- 6.26: Tacet.
- 6.30: Instrumental—Raie da Costa Ensemble, "Funny Face" Selection (Gershwin) (Parlophone Record A4074).  
Foxtrot—Coon-Sanders Orchestra, "My Suppressed Desire" (Miller) (H.M.V. Record EA504).
- 6.42: Tacet.
- 6.45: Orchestral—Grand Symphony Orchestra, "Merry Wives of Windsor" (Nicolai) (Parlophone Record A4083).  
Orchestral—Piccadilly Orchestra, "Friend o' Mine" (Sanderson) (H.M.V. Record B2857).
- 6.56: Tacet.
- 7.0: News session—Market reports and sports results.
- 7.40: Lecturette—Mr. P. J. Jackson, B.A., "Motives of Action" (under auspices of Workers' Educational Association).
- 8.0: Chimes of the G.P.O. clock.  
Special programme by the 2YA Revue Company, assisted by Studio Orchestra.
- 8.1: Overture—Orchestra, (a) March, "High School Cadets" (Souza), (b) Waltz, "Dornroschin" (Tschalkowsky).
- 8.10: Opening chorus by the Company.
- 8.14: Comedy song and chorus, "Derry Down Dey" (Jordan).
- 8.20: Burlesque—"The Army A.B.C." (Low).
- 8.25: Baritone solo—"If Ever I Meet the Sergeant" (Sterndale Bennett).
- 8.30: Comedian—"It's a Lie" (Robey).
- 8.35: Musical comedy selection—Orchestra, "Queen High" (Gensler).
- 8.44: Sketch—"Love or Lucre" (Peach).
- 8.54: Novelty—The Variety Singers, "An Old-time Music Hall" (Regal Record G30010).
- 9.0: Weather report.
- 9.2: Instrumental—Orchestra, repeat number.
- 9.10: Three Clerical Errors, "The Parsons of Puddle" (Cecil).
- 9.15: Burlesque—"The Automobile Ride" (MS.).
- 9.20: Baritone solo—"If I Were" (Richards).
- 9.23: Sketch—"The Seance" (Peach).
- 9.33: Eastern song and chorus—"Sampan" (Jordan).
- 9.38: Sketch—"A Restaurant Episode" (Lester).
- 9.46: Orchestral—Orchestra, "Bits and Pieces" (Baynes).
- 9.56: Recital—"Mrs. 'Arris Again" (Poultney).
- 10.0: Instrumental—Orchestra, Dance Novelties.
- 10.10: "Brunswick" Dance Programme:  
Foxtrot with vocal chorus—Ray Miller's Orchestra, "He, She, and Me" (Newman) (Brunswick Record 4258).  
Novelty foxtrot—Joe Rines' Orchestra, "Fashionette" (Glogau).  
Foxtrot with vocal chorus—Ray Miller's Orchestra, "Angry" (Brunies) (Brunswick Record 4244).
- 10.23: Baritone solo—Richard Bonelli, "Luna d'Estate" (Summer Moon) (Tosti-Mazzola) (Brunswick Record 15198).
- Foxtrot tango with vocal chorus—Colonial Club Orchestra, "Mi Amado" (My Lover) (Lewis) (Brunswick 4241).

- Foxtrot with vocal chorus—The Clevelanders, "What a Girl! What a Night!" (Sanders) (Brunswick Record 4205).
- Foxtrot—Ray Miller's Orchestra, "That's a Plenty" (Brunswick Record 4224).
- 10.35: Baritone solo—Richard Bonelli, "Vision of Venice" (Brogi-Orvieto) (Brunswick Record 15198).
- Foxtrot with vocal chorus—The Six Jumping Jacks, "Olaf" (Gilbert) (Brunswick 4219).
- Foxtrot with vocal chorus—Colonial Club Orchestra, "Yo Te Amo means 'I Love You'" (Bryan) (Brunswick Record 4258).
- 10.47: Vocal duet—Lester McFarland and Robert Gardner, "Birmingham Jail" (traditional) (Brunswick Record 293).
- Foxtrot with vocal chorus—Colonial Club Orchestra, "Monna Vanna" (Sweetheart Sublime) (Brunswick 4186).
- Foxtrot with vocal chorus—The Six Jumping Jacks, "The Monte Carlo Song" (Endor) (Brunswick Record 4219).
- Foxtrots with vocal chorus—Ray Miller's Orchestra, (a) "Let's Sit and Talk about You" (Fields), (b) "In a Great Big Way" (Fields) (Brunswick Record 4223).
- 11.0: Close down.

## 3YA, CHRISTCHURCH (306 METRES)—SATURDAY, JUNE 22.

- 3 p.m.: Afternoon session—Selected studio items.
- 4.25: Sports results.
- 4.30: Close down.
- 6.0: Children's session conducted by Aunt Pat and Peterkin.
- 7.0: News session.
- 7.30: Sports results.
- 8.0: Chimes.

### "THE REVELLERS" CONCERT PARTY In MUSIC AND SONG.

- 10 p.m.: "His Master's Voice" Dance Programme:  
Waltz with vocal refrain—Arcadians' Dance Orchestra, "Nicolette" (Batten) (Zonophone Record 5201).  
Foxtrot with vocal chorus—Bert Firman's Dance Orchestra, "'Cause I'm in Love" (Donaldson) (Zonophone Record EE123).  
Foxtrot with vocal chorus—Jack Hylton's Orchestra, "Forty-seven Ginger-headed Sailors" (Sarony) (H.M.V. Record EA448).
- 10.10: Tenor solo—Franklyn Baur, "At Dawning" (Cadman) (Zonophone Record 5204).  
Foxtrot with vocal chorus—Bert Firman's Orchestra, "I'm a Broken-hearted Blackbird" (Fields) (Zonophone Record EE123).  
Foxtrot—All Star Orchestra, "There's a Rainbow 'Round My Shoulder" (Olson) (H.M.V. Record EA486).
- 10.19: Male chorus—"Over There" (Medley) (H.M.V. Record EB33).  
Hawaiian—Hilo Hawaiian Orchestra, (a) "Kawaihau Waltz" (Keala-kai), (b) "My Hula Love" (H.M.V. Record B2799).  
Male voices—Salon Group, "Sonny Boy" (Jolson) (H.M.V. Record EB35).
- 10.27: Bass-baritone solo—Peter Dawson, "Lorraine, Lorraine, Loree" (Capel) (H.M.V. Record B2759).  
Wurlitzer organ solo—Jesse Crawford, "A Dream" (Bartlett) (H.M.V. Record EA488).  
Foxtrot—All Star Orchestra, "She Didn't Say Yes, She didn't Say No" (Strong) (H.M.V. Record EA436).  
Waltz with vocal chorus—Waring's Pennsylvanians, "Just Another Night" (Donaldson) (H.M.V. Record EA462).
- 10.39: Wurlitzer organ solo—Jesse Crawford, "Amapola" (Poppy) (Lacalle) (H.M.V. Record EA488).  
Foxtrot—Waring's Pennsylvanians, "I'm Sorry, Sally" (Kahn) (H.M.V. Record EA462).  
Waltz—Arcadians' Dance Orchestra, "Couldn't You Have Waited?" (Mitchell) (Zonophone Record 5215).
- 10.50: Male trio—Melody Three, "Pals, Just Pals" (Dreyer) (Zonophone Record EE133).  
Wurlitzer organ solo—Reginald Foort, "Just Like a Darby and Joan" (Gilbert) (H.M.V. Record B2775).  
Foxtrot with vocal refrain—Arcadians' Dance Orchestra, "Juanita" (Flynn) (Zonophone Record 5215).
- 11.0: Close down.

## 4YA, DUNEDIN (463 METRES)—SATURDAY, JUNE 22.

- 2.45 p.m.: Relay description of senior Rugby football match from Carisbrook grounds.
- 6.0: Town Hall chimes.
- 6.1: Children's session, conducted by Uncle George.
- 7.0: News session.
- 8.0: Relay of 3YA, Christchurch ("The Revellers" Concert Party in Music and Song).
- 10.0: "His Master's Voice" dance programme:  
March—American Legion Band, "March Salutation" (Seitz), (Zonophone EE74).  
Fox-trot with vocal chorus—Nat Shilkret's Orchestra, "Lonesome in the Moonlight" (Russell), (H.M.V. EA481).  
Fox-trot—Nat Shilkret's Orchestra, "Fascinating Vamp" (Nussbaum), (H.M.V. EA367).  
Fox-trot—Nat Shilkret's Orchestra, "What's the Reason?" (Atteridge), (H.M.V. EA378).

- 10.13: Tenor solo—Maurice Gunsby, "Lay My Head Beneath a Rose" (Falkenstein), (Zonophone EE17).  
 Fox-trot—Coon Sander's Orchestra, "Ready For the River" (Kahn), (H.M.V. EA378).  
 Fox-trot—Paul Whiteman's Orchestra, "It Was the Dawn of Love" (Davis), (H.M.V. EA381).  
 Waltz—Rhythmic Eight, "Neapolitan Nights" (Zamecnik), (Zonophone EE106).  
 Waltz with vocal refrain—Goodrich Silvertown Cord Orchestra, "The Church Bells are Ringing for Mary" (Colby), (H.M.V. EA381).  
 10.27: Comedian with orchestra—Frank Crumit, "The Song of the Prune" (Crumit), (H.M.V. EA366).  
 Kinema organ solo—Chas. W. Saxby, "For My Baby" (Kahal) (Zonophone 5143).  
 Fox-trot—Arcadians' Dance Orchestra, "Singapore Sorrows" (Le Soir), (Zonophone EE106).  
 Waltz—Victor Arden and Phil Ohman's Orchestra, "Chiquita" (Wayne), (H.M.V. EA396).  
 Tenor solo—Franklyn Baur, "Beloved" (Kahn), (H.M.V. EA392).  
 Fox-trot—Paul Whiteman's Orchestra, "Louisiana" (Razaf), (H.M.V. EA386).  
 Male trio—California Humming Birds, "I Just Roll Along" (Trent) (H.M.V. EA356).  
 Fox-trot—Paul Whiteman's Orchestra, "Dixie Dawn" (Trent), (H.M.V. EA386).  
 Male trio—California Humming Birds, "She's a Great, Great Girl" (Woods), (H.M.V. EA356).  
 Waltz—Rhythmic Eight, "Momsy" (Yellen), (Zonophone EE104).  
 11.0: Close down.

## Sunday June 23

### 1YA, AUCKLAND (333 METRES)—SUNDAY, JUNE 23.

- 3 p.m.: Selected studio items.  
 3.0: Literary selection by the Announcer.  
 4.8: Studio items.  
 4.30: Close down.  
 6.0: Children's session conducted by Uncle Leo.  
 7.0: Relay of service from Baptist Tabernacle (Preacher, Rev. Joseph Kemp; Organist, Mr. Arthur E. Wilson).  
 8.30 (approx.): Rebroadcast of 2YA, Wellington (relay from Grand Opera House, Wellington, of concert by the Port Nicholson Band under the conductorship of Mr. J. J. Drew).  
 9.30 (approx.): Studio items:  
 Vocal duet—Caruso and Journet, "Crucifix" (Faure) (H.M.V. Record DB951).  
 Choral and orchestra—Philharmonic Choir, "Mass in G Major—'Benedictus' and 'Agnus Dei'" (Schubert) (H.M.V. Record D1480).  
 9.45: Close down.

### 2YA, WELLINGTON (420 METRES)—SUNDAY, JUNE 23.

- 3 p.m.: Afternoon session—Selected studio items.  
 6.0: Children's session conducted by Uncle George.  
 7.0: Relay of evening service of Trinity Methodist Church, Newtown.  
 Preacher: Rev. T. W. Vealie. Organist: Miss Lillian Thawley, L.A.B. Choirmaster: Mr. E. Eales.  
 8.15 (approx.): Relay from Grand Opera House of recital by the Port Nicholson Silver Band under the conductorship of Mr. J. J. Drew.  
 Close down.

### 3YA, CHRISTCHURCH (306 METRES)—SUNDAY, JUNE 23.

- 3 p.m.: Relay of special "Animal" service from the Christchurch Anglican Cathedral (under the auspices of the Humanitarian Society of New Zealand and the patronage of the Mayor and Councillors of the City of Christchurch): Preacher, The Dean of Christchurch (Patron of the Humanitarian Society).  
 4.15 (approx.): Studio items.  
 4.30: Close down.  
 5.30: Children's song service.  
 6.15: Hymn tunes on Vibraphone.  
 6.30: Relay of service from Knox Presbyterian Church, Bealey Avenue (Preacher, Rev. T. W. Armour; Musical Director, Mr. W. H. Dixon (Professor of Music); Organist, Mr. A. Wellbrock).  
 7.45: Studio gramophone recital.  
 8.15 (approx.): Rebroadcast of 2YA, Wellington (relay from the Grand Opera House, Wellington, of concert by the Port Nicholson Silver Band under the conductorship of Mr. J. J. Drew).  
 Close down.

### 4YA, DUNEDIN (463 METRES)—SUNDAY, JUNE 23.

- 5 p.m.: Town Hall chimes.  
 5.1: Selected gramophone items.  
 4.30: Close down.  
 5.30: Children's song service, conducted by Big Brother Bill.  
 6.15: Close down.

- 6.30: Relay of service from Methodist Central Mission. Preacher: Rev. Hinton. Organist: Mr. Chas. A. Martin.  
 8.5: Relay from His Majesty's Theatre of concert by the Tramways Band.  
 9.15: Close down.

## Auckland Notes

(By "Listener.")

THE Auckland University Literary Society lent a hand with the programme at 1YA on Wednesday night, and produced a couple of very acceptable plays. The second one, "The Grand Cham's Diamond," was much the better effort, the dialect being effectively rendered. The first was somewhat marred by want of clearness in enunciation.

AT the Leys Institute, Ponsonby, there meets weekly a most enthusiastic little coterie of junior radio constructors and students. The boys, under an efficient and earnest instructor, are assembling their own transmitter, which they hope shortly to have in regular operation. Several are making such progress with Morse that they will sit for certificates. Others are engaged upon building sets for their homes. A visit to this wireless room on any Wednesday evening is well worth while.

ON Monday last the writer happened along a residential street close to the heart of Auckland. His ear caught Mr. Culford Bell's voice, and an intimation that the station was crossing over to give Ellerslie results. Then the source of the announcements came into view. On the veranda of one house, temporarily placed upon a chair, was a loudspeaker, and quite an effective instrument, for both volume and clarity. On adjacent verandas, and in front of houses on the other side of the street several people were seated, all intent upon hearing the last winner. It was good and decidedly cheap entertainment for quite a little community, but it is doubtful if the owner of the set, in his consideration for his neighbours, realised that his procedure was to some extent hampering the progress of broadcasting. There are always numbers who are willing to take all that they can get for nothing. Had they not been able to listen to the service rendered by a neighbour's set, they might themselves have been expending a thirty shillings that would help the march of broadcasting in the Dominion.

AUCKLANDERS naturally feel satisfied that their postal district claims over a third of the registered number of set-owners in the Dominion. For the beginning of the new year our figures are only slightly lower than they were on March 31, and judging by the optimistic tone one finds in all radio circles, it will not be long ere the figures for March are exceeded. The cult of listening has got beyond the "craze" stage here: the radio business has passed from the boom period to one of steady advancement, with the marketing of more reliable sets at prices that are within the reach of all. Most of the junk that prejudiced reception a few seasons ago has now been consigned to the scrap-heap, and everything indicates more general satisfaction both at the transmitting and the

receiving ends. Auckland certainly can boast of a very energetic body of amateur transmitters, 127 in number, according to latest figures. The Amateur Transmitters' Association in this city holds its annual reunion to-night, and the energetic secretary is confident of an enthusiastic gathering.

MR. LEN. BARNES, our station director, misses no chance of securing fresh talent and novelties for 1YA programmes. Our list of new performers swells weekly. Next week the "Radio Scamps," who made a most successful debut last month, are due with a real novelty programme, presented in the style which has made more than one of Mr. Barnes's special evenings so fresh and unusual.

## 4YA New Studios

### All Work Well in Hand

THE work of fitting up the premises which are to be the new studios for 4YA is well in hand, and will be completed before the arrival of the new transmitting plant. Mrs. J. M. Bingham (wife of the Broadcasting Company's chief engineer), who has been responsible for the artistic furnishing of the other studios, in Auckland, Wellington, and Christchurch, will again direct this important work.

## Concerns Every Man

The Public Trust have just issued a new booklet that concerns every man, and it will make a special appeal to the man in business.

It tells why you should make a will and touches on several other matters of vital interest. Get a copy of this free Booklet now. You will find it interesting reading.

### "A Vital Business Matter"

If you haven't read it, get your copy to-day. Obtainable from any Office or Agent of the Public Trustee, or free by post from the Public Trustee, Wellington.

# Notes and Comments

By  
"SWITCH"

A CHRISTCHURCH visitor, who has been doing a good deal of listening in Wellington, informed "Switch" that the capital city is remarkably clear of local electrical leakages, but Christchurch has rather more than its share. 2YA, Wellington, is now being heard with good volume in the southern city, and multi-valve set owners derive a considerable amount of entertainment from the Wellington station.

MR. Laurence Halbert, announcer at 2FC, Sydney, one of the most correctly-speaking announcers in Australia, says:—"If the announcer does trip—and he often does—over a word, what happens? By the following mail comes a badly punctuated, and, as a rule, ungrammatical, letter from an irate old gentleman, whose ear has been offended by the said mistake. Remember, he may make a mistake himself when making up his cash book, and possibly a very

silly one, like a simple addition; but a few minutes' work, a deft rub of the eraser, and no one is any the wiser. But when the announcer makes a mistake the whole world knows it; it has gone, and no power on earth can recall it—it's rather terrifying in its potentialities." Perhaps some of our New Zealand critics will give thought to this remark.

NEW Zealand home-constructors have good reason to be pleased that the Japanese radio regulations are not in operation in the Dominion. A Japanese experimenter, before he begins to build his set has to place his credentials before the Chief of the Bureau of Communications, and receive a permit. When he has built his set it has to receive the seal of the authorities before he is permitted to use it. He is not permitted to alter his set without official sanction, under risk of a heavy penalty.

A SHORTWAVE beginner mentioned to the writer recently that reception came in "gusts," and he was anxious to know whether this was due to a faulty valve or battery. The gistiness he referred to is characteristic of a good deal of shortwave reception, and is merely accelerated fading. It is one of the disappointing features of short-wave reception. Those who do not operate a short-wave set may have observed this gistiness when short-wave rebroadcasts are heard from 2YA, Wellington, and they have sometimes erroneously attributed it to local trouble.

MR. Robert Allen, of the Samoa Public Trust Office, Apia, reports: "An interesting point in reception here is that by putting in a broad tuning aerial coil and tuning midway between 2FC and 2YA, Wellington, I am able to hear the post office clocks at Sydney, Wellington, and Apia, chiming 8, 9.30 and 10 respectively and simultaneously."

A WELLINGTON listener, who counts himself merely an average person, with the average amount of musical appreciation, urges "Switch" to draw the attention of banjoists and of other instrumentalists who specialise in one instrument that they have available a wide scope of music suitable to their individual type of instrument without straying into realms unsuitable for their particular line. "The banjo has its limitations and it is showing up these limitations to ask it to reproduce certain music," he concluded.

THE above criticism was shown to a local musician of ability and experience. He concurred with the protest. After consideration he gave the following to "Switch" as his studied opinion:—"The eternal fitness of things is always paramount in the mind of the true artist, whether in music, painting, drawing, sculpture, or even architecture. Yet this breach of judgment on the part of instrumentalists is all too frequent. Let me quote an example. Not so long ago I heard a mandolin duo attempt to play the 'Miserere' duet from 'Il Trovatore'. The result was an utter travesty. There is an abundance of delightful music particularly suitable for the mandolin without trenching on grand opera. It is a wonder that someone has not yet attempted to play excerpts from 'Norma' on the bagpipes."

AN American visitor to Wellington who modestly admits some knowledge of banjo playing, while as a matter of fact he is an exceptionally good performer, was asked by "Switch" as to his opinion upon the playing of a hymn on the banjo. He said that the banjo owed its origin

to the negro slaves in the Southern States of America, and was first extensively used for devotional music or, as it is now known, as "spiritual" song, but this was vastly different to the hymn heard on a banjo over the air recently. The negroes also played a certain type of dance music and "nigger" songs of a most distinctive kind.

SOME theatrical people still retain the notion that radio is a rival and not an ally to the stage. Mr. Howard Milholland, manager of KGO, Oakland, California, asserts that radio is a wonderful aid to both the theatrical and the concert stages. He points out that entertainment seen and heard in the company of a large number of people heightens emotional reaction, and so we will always have theatre audiences and concert audiences. Radio serves to advertise the stage, and to whet the appetite of listeners for more than what is actually put on the air.

2FC, Sydney, announced a new idea recently in a "slumber music" session. It was introduced at the end of a Sunday evening session. The items comprised gramophone records specially selected with music of a restful character. No items were announced, each record following the other without intermission. The idea was tried out as an experiment, and its continuance will depend upon opinions sent by listeners.

ONE may doubt the sincerity of a few listeners who have written to the Wellington Radio Society stating they decline to join that body, as it had attempted to stop the re-laying of football matches on Saturday afternoons. If those self-same listeners had attended the Radio Society's annual meeting that exceedingly ill-advised motion would not have been carried. As it was, the older and more experienced members of the society voted against the motion, which had as one of its sponsors a listener who had only just joined the union.

FILM actors and actresses in their anxiety to learn if they had the same appeal in their voices that they have in their shadow personalities, have been making secret visits to KGO, Oakland, California, the home of the radio drama in the west. Several of the stars temporarily joined the ranks of "KGO Players," believing that in the radio drama they have a great medium to train their voices for the talkies. Assumed names were used so as to obtain an unbiased reaction to their work, and to avoid contract entanglements.

A CITY listener who lately visited Masterton was astounded at the excellence of reception in that town during broad daylight. All the YA stations were available from the loudspeaker early in the afternoon. 3YA Christchurch came in with such volume as to be intolerable, and had to be toned down. A Wellington radio technician informed "Switch" that his sets increased in volume 100 per cent. in reception of long distance stations when transferred from the city to up-country.

AN interesting experiment recently took place in Moscow, when a short-wave telephony transmitter was taken up by an engineer in an ordinary gas balloon. Communication with the earth was easily established, even at heights exceeding 4000 metres (13,000 feet). Two-way communication was maintained continuously for two days and two nights on a wavelength of 43 metres, the transmissions being simultaneously picked up by Odessa, Vladivostok, Minsk, and Leningrad.

EVEN if your loudspeaker or headphones show no signs of damage from a fall, the concussion weakens the strength of the magnets within each. Listeners should take care not to bump, jar, or drop either a loudspeaker or a pair of headphones. There is a method of restoring weakened magnets, but it involves some mechanical skill in removing magnets from loudspeakers or headphones.

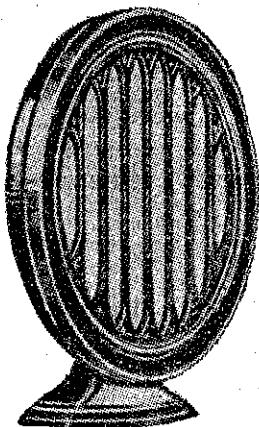
MR. R. O'DEA (Whangamomona, Taranaki), writes "Switch":—"The enclosed paragraph, clipped from the New York 'Nation' of February 18, 1929, may be of some use for our 'Notes and Comments.' I always enjoy reading your newsy pars, and have picked up many valuable hints therefrom. 'Radioing to a man 13,000 miles away to get him to radio 13,000 miles back to a man at close hand in order to get the latter to hang up his telephone receiver'—this is the extraordinary happening reported by Commander Byrd in a recent dispatch to the New York 'Times.' The 'Times' it appears, found difficulty in receiving the wireless messages from Byrd which are sent by him every night from his position in the Antarctic ice, because of the peculiar conditions around its building in New York City. The employee receiving these messages found that he could get them quite clearly in his home in Astoria across the East River from Manhattan, so clearly that by placing his telephone receiver close to his radio receiving instrument the Byrd dots and dashes could be heard perfectly in the 'Times's' office. One night, however, the 'Times' wished to call its employee in Astoria. There was only one way to do it. The newspaper radioed to that one of Byrd's ships which was receiving, and asked it to telephone over the ice to the other ship to tell the employee in Astoria to hang up his receiver. Two minutes later the man in question rang up saying: 'Byrd says you want to talk to me!' Thus is space annihilated. Who could have conceived a few years ago that one might send radiq messages 28,000 miles in two minutes to ask a man only about three miles away to hang up his telephone receiver?"

WHEN aerial insulators are being cleaned, sandsoap, pumice or other abrasive substance should not be used for the purpose, as it tends to remove the glaze from the surface of the insulators. The glazed surface breaks rain up into drops and thus prevents a continuous wet surface being formed, which would cause a leakage across the insulators.

DO any of our New Zealand radio "aunts" want to adopt a nice well-grown boy? "I like you as an aunt, but I'd like you better still as a mother," wrote a 17-year-old Filipino boy from Manila recently to Aunt Betty (Ruth Thompson), of KGO, Oakland, California. "If you will send me third class fare I'll go to the United States, get a job, and be your son." And he enclosed his picture.

AN ex-British Navy and Army man, Captain J. H. Watson, of Sydney, who is over eighty years of age, and rather guiltily admits to being the culprit who first introduced rabbits to Australia, is to be personally interviewed before the microphone of 2BL, Sydney, on the evening of May 30. Listeners in New Zealand will be interested in the idea, and no doubt a good few sets will be tuned in to 2BL to hear the interview.

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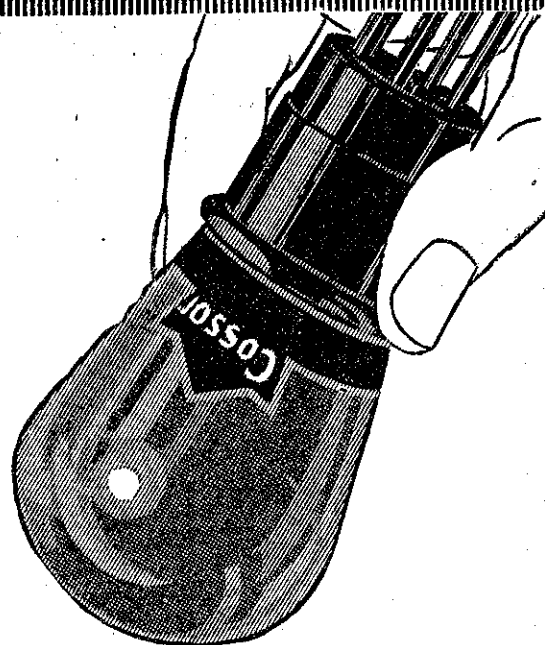
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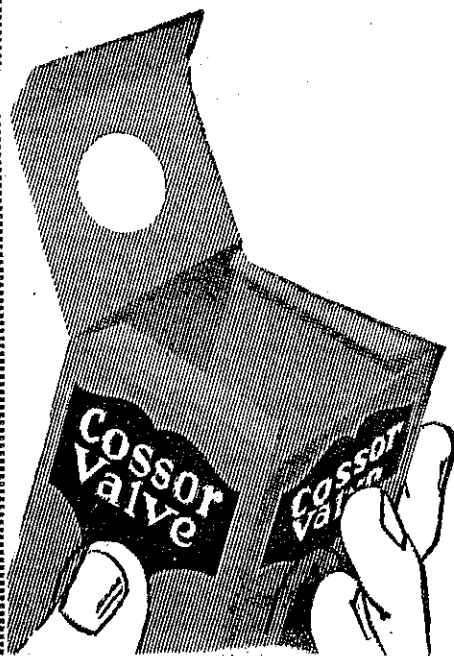
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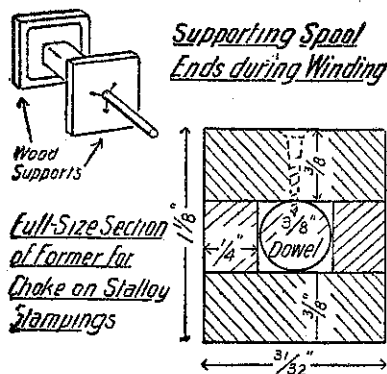
# Audio-Frequency Choke Coils

(Concluded from Last Issue.)

## Their Construction and Use

(By "MEGOHM")

**B**EFORE proceeding it is necessary to rectify two errors which appeared in last week's article. At the top of the last column on page 28, second line, the words "without gap" were omitted after the word "chokes," so that it appeared that constructors were not recommended to make full-size eliminator chokes, whereas they were to be recommended not to make them "without a gap." The second error was near the end of the article, the width of window in the output choke appearing as 1 inch, whereas it should be  $\frac{1}{2}$  inch.



The resistance, 700 ohms, of the output choke may appear to be high, and it certainly would be if used for eliminator smoothing, as 50 mills. passing through this resistance would drop 35 volts, and in two chokes double that amount. In an output filter, when a small power-valve is in the last stage, from 6 to 10 mills. plate current will be passing, and the drop of volts in this case will be from 4 to 7 only, and with

a larger power-valve passing 20 mills. the drop will be 14 volts.

For plate currents of 20 to 30 mills. an effective choke of low d.c. resistance can be made of 6,200 turns of 30's on either a lin. core or the special stampings. With a resistance of only 250 ohms, the drop will only be from 5 to 7½ volts. As this choke will carry 90 mills., the gap could be made 0.4, and the inductance increased over 20 henrys, still carrying 30 mills. with a good margin. A less bulky choke would result by using the 4700 turns of 32's on  $\frac{1}{2}$  in. core, as a few volts dropped from 300 or more is not usually serious.

If an output choke is of insufficient inductance there will be a tendency towards loss of deep notes.

Some coils sold for output use are really designed for use as plate impedances in a choke-coupled amplifier, and as such the inductance and d.c. resistance will be too high to give best results on the output, for which 20 to 30 henrys is sufficient.

### "B" Eliminator Smoothing Chokes.

**W**E now come to a very important use to which audio chokes are put, and as chokes for this purpose usually have to carry a fair amount of current, the relation between core and windings has to be carefully considered, in order that the chokes may be of reasonable size without allowing too near an approach to magnetic saturation of the core.

It may be assumed that the average five or six-valve receiver with a good

power-valve in the last stage must have about 30 milliamperes available from the eliminator, and besides this the eliminator should have a good reserve. Fifty to eighty mills. may have to be carried by the eliminator chokes, of which there should be two in series.

As previously mentioned, chokes for this purpose must be provided with gaps, and a very useful choke is one that has already been specified—6250

<i>Heavy Duty Chokes—Stalloy Cores</i>								
Henrys	Core $1\frac{1}{4} \times 1\frac{1}{4}$			$1\frac{1}{2} \times 1\frac{1}{2}$			$2 \times 2$	
	Turns	Gap	Amp	Turns	Gap	Amp	Turns	Gap/Amp
5	770	05	7	860	1	15	750	12 15
10	7500	25	4	3400	08	3	3000	1 4
	3300	05	2				2050	05 3
15	5800	1	2	3900	1	3	2600	05 25
20	6700	1	2	7900	2	3	4200	1 3
	4900	05	120	9700	3	4	2950	05 2
50				17500	4	3	9500	2 25
							4800	05 12
100							13200	2 2
							6600	05 1

turns of 32's on a  $1 \times 1$  core, with a D.C. resistance of 273 ohms, and capable of carrying 85 mills. with two gaps of  $\frac{3}{128}$ ths each—this is the half of  $\frac{3}{64}$ ths or .05. It should also be noted that .03 is just under  $\frac{1}{32}$ nd.

Constructors should get rid of any idea that eliminator chokes are to be small components compared to the transformer. A good choke will be very little smaller than the transformer, and for the home constructor there is nothing to be gained in operation by paring the size—in fact, the reverse is the case. Plenty of core material is essential in a good choke. This size is very suitable for a 200-volt eliminator supplying the average set. For larger output, where there is a  $\frac{7}{8}$  or 10 watt valve in the last stage with 300 to 400 volts on the plate, chokes of larger dimensions with  $\frac{1}{2}$  in. core are recommended, with 5800 turns of 30's, which will keep the D.C. resistance low. With this size the full inductance value can be used, and though the lin. core previously speci-

fied with 32's could be used, it would be safer to increase the gap about 50 per cent. without increasing the turns.

It will be seen in the table that by decreasing the gap, fewer turns can be put on, the inductance being kept the same, but fewer mills. are carried. Any of the reduced gaps may be utilised so long as the maximum mills. given is well over the amount of current to be actually carried. The larger the gauge of wire used, the more space it will occupy, and so a great number of the turns are farther from the core than would be the case with thinner wire. This difference, however, is not actually great, and need not be taken into account for the gauges of wire likely to be used.

For small half-wave eliminators such as are used for two-valve crystal amplifiers, it is usual to provide one choke only for smoothing, and if the plate current of the last valve does not exceed 9 or 10 mills., 930 turns of 36's on a lin. core without gap will give 20 henrys. But a better choke is made with a gap, 6200 turns of 36's on a three-quarter core with .03 gap, window  $2 \times \frac{1}{2}$  in. For this same purpose the core of an old audio transformer may be used if the central portion of the core is not under  $\frac{1}{2}$  in., but better if  $\frac{3}{4}$  or 1. A spool is made and sufficient turns of 38's or 40's put on to give about 20 henrys, judging from figures given in the table. The laminations are all assembled the same way round, and it may be necessary with some patterns such as E's to place built-up strips of stalloy across the open end to form the gaps. The gauge of wire should suit the mills. to be passed. From 6000 to 800 turns will probably be required. Constructors should avoid using heavy gauges of wire on smoothing chokes on account of the large amount of space occupied. Any gauge larger than 30's should be avoided except in special cases where its use is warranted.

### Stalloy Stampings for Cores.

**L**AST week a diagram was given showing the dimensions of the useful stalloy stampings now stocked by Messrs. Thos. Ballinger and Co., Ltd., Wellington. The use of these stampings does away with the cutting and flattening of stalloy strips, and they may be assembled either alternately with no gap, or all one way, giving three gaps which for ordinary purposes may be filled with three strips

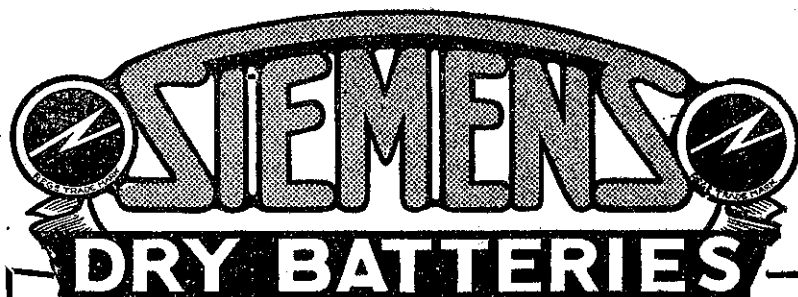
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of visiting card thickness, or if the current to be carried is comparatively large, two thicknesses may be used. The combined gaps should, if possible, be computed to equal the amount given in the table.

The dimension of the window in these stampings is 2 5-16 by 3/16 in., and allowing for spool ends, centre, and taping, a space measuring 2 by 1/4 is available for the winding, and this will be taken as 1 1/4 sq. in. This space will accommodate turns of enamelled

These stampings are what is known as "shell," as the core is divided, half passing round each side of the coil, forming two windows. As compared with the "core" pattern with only one window, the "shell" is slightly better for a transformer, but the difference is small. The stampings are sold in lots of half a gross of each, T's and U's, and this quantity allows of the core being built to 1 1/8 in., so that it may then be used for choke purposes as a one-inch square core. For the pro-

chokes to support the outer ends of the spool in some way that will withstand the pressure of the turns. A square of wood with a hole to slip over the spindle and small nails in the latter will answer the purpose.

Upon referring to the table of gap chokes, we find that 6250 turns of

30's can be put upon this core to make a 20 henry smoothing choke with one-third of .05 in each gap, which is 1-64th in each. D.C. resistance, 250 ohms.

When using these stampings it is best to see that the window was fairly well filled if possible and in some

Choke Coils with Gaps—Stalloy Cores												
Henry's	Core $\frac{1}{2} \times \frac{1}{2}$			$\frac{3}{4} \times \frac{3}{4}$			1 x 1			$1\frac{1}{4} \times 1\frac{1}{4}$		
	Turns	Gap	Mils	Turns	Gap	Mils	Turns	Gap	Mils	Turns	Gap	Mils
15	10000	<sup>IN.</sup> .05	55	6900	<sup>IN.</sup> .05	80	5200	<sup>IN.</sup> .05	110	4200	<sup>IN.</sup> .05	140
	8000	.03	42	5300	.03	55	4000	.03	85	3150	.03	110
20	12000	.05	48	7900	.05	70	6250	.05	90	4800	.05	120
	9300	.03	37	6200	.03	48	4700	.03	70	3750	.03	90
30	14600	.05	37	10000	.05	57	7400	.05	75	5800	.05	100
	11500	.03	30	7500	.03	45	5700	.03	50	4500	.03	70
50	19000	.05	30	12700	.05	45	9500	.05	60	7500	.05	75
	15000	.03	23	9800	.03	35	7300	.03	45	5900	.03	58
100	21000	.03	16	17500	.05	30	13400	.05	42	10200	.05	55
				13400	.03	25	10400	.03	37	8200	.03	40
Carrying Capacity of Wire (s.w.g.)												
mils 200		130		100		80		50		32		20
Gauge 28		30		32		34		36		38		40 Gauge

wire according to the gauge as follows:—

S.W.G.	Turns.	S.W.G.	Turns.
26	3,100	34	13,000
28	5,000	36	19,000
30	6,300	38	34,500
32	9,400	40	54,000

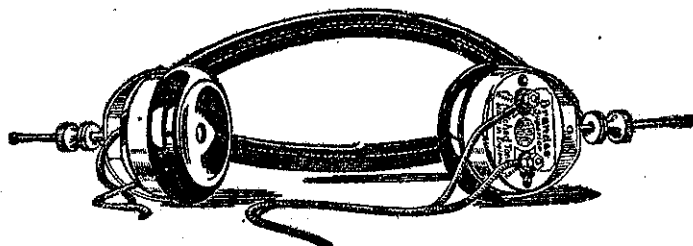
Or d.c.e. wire as follows:—

S.W.G.	Turns.	S.W.G.	Turns.
18	420	26	1,600
20	550	28	2,160
22	840	30	2,500
24	1,190		

cess of winding, a wooden former should be made 2 1/2 in. long and 1 1/8 by a shade over 15-16 in. to allow the centre strips to slip in easily. On this former a spool is built with 1-8 in. ends, and 2 in. wide inside. The spool ends will be 2 1/2 in. square, and should be of strong material, as in choke winding, not in layers, there is a continually increasing outward pressure as the wire is wound on, and the heavier the gauge, the greater is this outward pressure, which will curve outwards any but the strongest material. It is therefore necessary when winding any

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cases a suitable gauge of wire can be used with this object, so that previous remarks regarding gauges heavier than 30's need not apply here.

The method of using wooden clamps on these stampings requires some mention. The clamps are best put on parallel to the centre core, the laminations of which are packed tight by means of narrow strips cut off spare laminations and forced in on the outside of both sides of the core. Subsequent strips must have the entering corners sloped off for safety and must be pushed in between the first extra strip and the core. Clamps are  $\frac{1}{2}$  in. thick by  $\frac{1}{2}$  in. wide, if the winding is a full one, and will be  $\frac{3}{4}$  in. long, drilled  $\frac{3}{16}$  in. centres. Threaded brass rods,  $\frac{1}{8}$  in. each.

Where a low d.c. resistance 20-henry choke is desired, 4700 turns of 28's enamelled may be used, having a resistance of 182 ohms. Gap .03 in.

Some of the good makes of eliminators are now provided with 30-henry smoothing chokes, and some constructors might like the idea of putting in one if not both, of this value. If one only, it should be the one nearest to the rectifier. A suitable choke can be selected from the table. If the stampings are to be used, 7400 turns of 32's or 5700 turns of 30's can be put on, with d.c. resistance 385 and 227 ohms, respectively. The average turn of a full winding is 0.6 feet, and this multi-

plied by the number of turns gives the feet of wire used, from which the resistance can easily be calculated, by reference to a wire table giving ohms per 1000 feet.

It may be mentioned here that some factory-made chokes sold for "B" eliminator work have a d.c. resistance as high as 500 ohms, which looks rather a high figure, though the drop will only amount to a half volt per mil.

#### Choke-Coupled Amplifiers.

INSTEAD of the popular transformer or resistance amplifier coupling, choke coupling may be employed. It really consists in replacing the plate resistance of a resistance coupling by an impedance or choke of about 100 henrys, or sometimes as much as 150. This system gives good reproduction, and avoids the great drop in plate voltage which is inevitable with resistance-coupling.

In dual-impedance amplifiers the grid-leak of the resistance-coupling is replaced by a choke of 200 to 250 henrys, and this is known as the grid impedance. The merits of the system will not be discussed here. In practice, a 100-henry choke gives good results in a plate impedance, and may be wound with 38's or 40's wire, 13,400 turns on a  $\frac{1}{2}$  core, gap .03, or 10,400 turns on a  $\frac{1}{4}$  in. core, as shown in the table.

Home constructors will find it very convenient to use the secondary of any

old audio transformer as a grid impedance. A transformer with a broken-down primary will answer well.

#### Chokes for Plate Leads.

A CHOKE of 15 to 20 henrys answers well in plate leads to prevent "motor loading." Very often the core of an old audio transformer may be turned to good account for this purpose. In the detector plate lead, high d.c. resistance is of little consequence, so that the wire may be of very thin gauge, 38's or 40's.

#### Low Voltage Chokes.

EXPERIMENTERS may require chokes suitable for "A" eliminators or other low-voltage smoothing, so specifications are included. Values from 0.5 to 0.1 henry are used for this purpose. To pass 2 amperes continuously not less than 20's wire should be used, but 18's is better, as the d.c. resistance must be kept as low as possible for low voltages, as appreciable drop is not permissible.

Utilising the stalloy stampings, 400 turns of 18's d.c.c. would give a value of over 0.1 henry, with a .05 gap. To pass not more than one ampere, 800 turns of 22's d.c.c. will give 0.5 henry with a gap of 1-64 in. Other heavy duty chokes are given in a table.

The heavy duty chokes are wound with enamelled wire, preferably in layers with paper between, and of gauge to carry the current—20's for 1.5 amp., 22's for .7, 24's for .4, 26's for .3, 28's for .2. The chokes with the larger gaps are to be preferred.

#### Volts Dropped in Chokes.

THE voltage of direct current passing through a choke is always reduced by the resistance of the wire. The thinner the wire and the greater the number of turns, so does the resistance increase. To find the voltage that is to be dropped we must first find the d.c. resistance of the wire comprising the choke. This is obtained by first measuring the "average turn," which is actually the length of the centre turns of the coil, reckoning from core to last layer. This measurement multiplied by the number of turns gives the total length of wire, and by finding the resistance of 1000 feet in a table, such as appears in the "Listeners' Guide" the resistance of the coil can be calculated. Multiply the mils. passed (expressed as amperes) by the resistance, and the result gives the volts dropped. Note particularly that the more current passed the greater the loss of voltage.

Every mil. passing through 1000 ohms drops one volt, so 50 mils. drops 50 volts. Every mil. passing through 500 ohms drops  $\frac{1}{2}$  volt, so 50 mils. will drop 25 volts; 50 mils. through 200 ohms drops 10 volts; 30 mils. through 300 ohms drops 9 volts; 100 mils. passing through 150 ohms drops 15 volts, and through 250 ohms drops 25 volts.

The foregoing figures give a good idea of the voltage drop across the average choke, which in "B" eliminators with two chokes, will be doubled.

#### General Points.

IF there is hum in an eliminator it may be due to saturation of the chokes if not insufficient capacity of smoothing condensers. In such a case it will pay to increase the gap in the chokes and note the effect. The given dimensions of gaps cannot be more than approximate, as several other factors affect the general performance.

The chokes given in the tables are worked out on a basis of a flux density

of not more than 35,000 lines per inch, which gives a good margin to meet the case of rectified alternating current with little or no smoothing being applied to the choke.

THE action of a choke coil takes place between the turns of wire and the magnetic lines of force of the field of the coil. The interconnections between the lines of force and the turns produce within the coil a "back electromotive force," so called because it always opposes the alternating current applied to the coil, and which is producing the "back e.m.f." The presence of an iron core increases the back e.m.f., which therefore causes the coil to offer greater resistance to any change (alteration) of current, so causing the maximum "choking" effect to take place. That is to say, the choke will freely pass direct current, but offers a very high impedance to alternating current.

Always make sure that laminations of cores are packed tightly, and free from any chance of rattle, which if present in an output filter choke will spoil quality. All gauges of wire given in this article are s.w.g.

Machine-cut stalloy makes a more compact core than the average hand-cut and flattened material.

All choke specifications here given are calculated upon a flux density of 35,000 lines to the inch, which gives a very liberal margin below saturation point. Stalloy permits of working up to 55,000 lines without saturation, so that chokes given in the tables may be made to carry a reasonable overload if necessary, though it is not recommended.

When a choke of high inductance is required to carry heavy current, this can only be done by a large increase in both the number of turns and the width of the gap, the latter sometimes being as much as  $\frac{1}{2}$  inch in a 100-henry choke on a 1 x 1 core, which is thus enabled to carry 50 mils. with 18,000 turns of 36's wire, but with a drop of 114 volts.

In the table given for ordinary chokes, the gaps have not been increased for the higher inductances, because as a rule these are not required for purposes using heavy current. The heavy duty chokes will carry as much current as the average constructor or experimenter is likely to require.

When the length of window exceeds  $\frac{1}{2}$  in., the larger gap given should be used.

It has been decided that for the meantime the particulars of chokes without gaps will be held over, as data on hand appears to be insufficient to enable a useful table to be compiled. In any case, the use of such chokes is somewhat limited, owing to the comparatively small current allowable, but where this factor is not of consequence, a good reduction in bulk is often possible, on account of the shortened winding required when no gap is used.

This article has been written in an endeavour to clear up the difficulties confronting constructors owing to the general lack of information on the subject, and the writer trusts that his efforts will fulfil the desired object.

For Sale or Exchange.

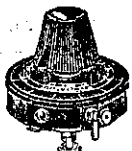
See page 32 for column of casual advertisements.



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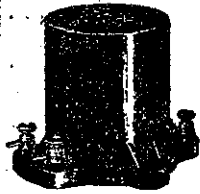
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**The Eternal Night****Down at Antarctic**

(From R. Leslie Jones, Lyall Bay.)

**"WE think of you during your Eternal Night."**

These words, uttered on Saturday night, June 1, with dramatic force by Announcer James Wallington from broadcast station WGY, Schenectady, New York, meant much to Commander Byrd and his gallant men now located at "Little America" in the Antarctic, and also the thousands who had the opportunity of listening to the splendid musical programme broadcast by WGY (790 kilo-cycles) and allied stations 2XAF (9530 K.C.) and 2XAD (15,340 K.C.).

The Checkers Cab Company provided a fine programme; some bright orchestral items included, a feature being "King of the South Pole," specially dedicated to Commander Byrd, and sung by a lady. Loud applause in the studio greeted this and each other item. "Sweet Rosie O'Grady" was another item much enjoyed.

Interspersed in the programme were a few short talks by personal friends of Commander Byrd's party. A budget of messages were read out to members of the expedition, both at the "Frozen South" and also abroad the City of New York and Ellinor Bolling, now lying at Dunedin waiting for the ice to break up at the polar regions.

Some of the messages caused not a little laughter, and some of the others created perhaps a little pathos. A large variety of subjects was touched upon, from "The Baby's Progress" to "The Tenth Anniversary of a Wedding," and a message "From mother, father, and grandmother" to their brave son many miles away, helped listeners to visualise a lifelike picture of the men down south, and their parents, relatives, and friends at home listening in at 2 a.m. in the morning (American time), a warm summer morning in New York; a message indicating that a small share of the colder atmosphere of the Antarctic would be very acceptable in New York at the present time.

The radio engineer of the U.S. Army Signal Corps spoke to the radio engineer at "Little America," offering congratulations for the magnificent radio work being performed at the Antarctic.

Mr. Russell Owen, the "New York Times" official correspondent with the expedition, was heartily congratulated for his splendid articles which have been appearing in the Press throughout the world.

**Icebergs****Lecture from 4YA**

UNDER the auspices of the Otago W.E.A., Dr. Tochen, of the University of Otago, will deliver a lecture from 4YA on Tuesday, June 18, at 7.30.

No one will deny that icebergs are a menace to shipping. Since the world was shocked by the dreadful Titanic disaster there have been several minor accidents due to the same cause. We are inclined in New Zealand to underestimate the danger, since our shipping rarely enters the iceberg zones. In a recent cable message, however, one of these rare cases was reported—a boat en route from Cape Town to Auckland sighted a large iceberg when a few days out from South Africa. The danger has been diminished to some extent by improved steamship design embodying the use of many water-tight compartments, but naturally a removal of the cause of danger would be a more thorough and satisfactory solution to the problem. Besides this, the composition and structure of these large masses of ice and their life history have attracted the attention of several notable scientists. For these and other reasons the "life and habits" of icebergs have been closely investigated and more especially since the war methods for locating and for destroying them have been studied principally in Canada, whose shipping has

Further humour was added when a message from a friend in America to one of the Byrd party, stated that pedestrians in a city in U.S.A. were compelled to respect the red and green traffic signals, and follow vehicular traffic; much fun being caused when (sage) being quick on the track of the someone pushed a pedestrian off the kerb on to the roadway against the red signal, the "cop" (stated the messenger).

Miss Sylvia Kennedy (Miss Schenectady), recently selected as "Miss New York State," spoke from the studio to Commander Byrd and party; and at 4.45 p.m. (New Zealand time) the entertaining announcer, James Wallington, speaking from WGY, said: "We have now come to the end of our programme; it is hard to say good-night; we think of you during your eternal night."

The programme from New York was received on short-wave throughout, on the loudspeaker, and was perfectly clear and steady.

been seriously embarrassed by their prevalence.

Icebergs are "born" towards the late summer round the edges of the huge ice-sheets surrounding the polar continents. It may be recalled that Commander Byrd's boat, the City of New York, was carried away once when a huge block of the ice-sheet broke away from the parent body. The subsequent history of the icebergs depends largely on the ocean currents and prevailing winds. Their occurrence is most frequently observed in the North Atlantic, where the steamers have for safety during the winter months to adopt a more southerly course than the direct one followed the rest of the year. Icebergs are deceptive as to size, for as most people know the greater part of them is submerged. Not a few would be surprised to know that only about one-tenth of the volume is visible. (The exact proportion can be reckoned from the relation that 100 cubic feet of water expand on freezing to form 109 cubic feet of ice.) The problem of locating icebergs is not so difficult as that of destroying them. In fact this latter problem has taxed the ingenuity of engineers and physicists very considerably, but it is now maintained that a reliable and practical method has been discovered and it is with this method that the lecture on June 18 will chiefly deal. It is manifestly impossible to destroy icebergs until they are located and the obvious but not the easiest or safest method of doing this is to keep a bright look-out for them in the regions where they are most dangerous. This method rather overlooks the danger to the small craft doing the scouting, which have to be specially constructed like the Russian Government's ice-breakers, and the prevalence of fogs in these particular regions. The distance of the visual horizon is, in any case, strictly limited by the height of the observer above the sea level. Another method which suggests itself is to use some physical property of the iceberg to enable you to detect it from a distance, for instance its low temperature, which is, of course, 0 degrees Centigrade, or its solidity. Actually both these properties have been utilised, but it is the solidity together with a means of producing and recording suitable sound waves which has led to the best method of location. With this the lecturer will also deal.

**Well-known European Conductor Talks on Broadcasting**

THE conductor of the Pavlova Orchestra, Elfred Kurtz, paid a surprise visit to the studios of the New South Wales Broadcasting Company Limited during the week, and expressed himself in enthusiastic terms of the up-to-date studios from which 2FO programmes are transmitted, and also the standard of music in New South Wales. Mr. Kurtz has been intimately associated with the Stuttgart Broadcasting station for the past five years. He is the musical director, and is chiefly concerned with conducting orchestral performances, many of which are broadcast from the principal theatres.

It was interesting to learn that listeners in Germany pay at the rate of 2s. per month, English money, for their license, which agrees with the 2s. a year paid by Australian listeners.

The Postal Department in Germany deduct one-twentieth, or a little over 1s. a year for administration or collection. In Australia the departmental deduction is 1s. per listener's license. The transmission side in Germany can be run more cheaply than is the case here, and with royalties and copyrights on a lower scale there is a bigger percentage left for actual programme presentation.

Mr. Kurtz described how the public performances of his symphony orchestra are broadcast. An orchestra of 85 members plays from the stage of the theatre, one microphone is suspended (the height of the dress-circle) half-way between the front row of the dress-circle and the proscenium, and the second microphone suspended very high up and directly on top of the orchestra.

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# Short-wave Jottings

Mr. Sellens writes:—

The following is the latest schedule of the short-wave stations of the General Electric Company, Schenectady, New York: W2XAD (19.56 metres):—

Monday	8 a.m.-8.45 p.m.
Tuesday	10.30 a.m.-4.30 p.m.
Thursday	10.30 a.m.-4.30 p.m.
Saturday	10.30 a.m.-4.30 p.m.
W2XO (21.96 Metres):	
Tuesday	6.30 a.m.-8.30 a.m.
Friday	6.30 a.m.-8.30 a.m.
W2XAF (31.48 Metres):	
Tuesday	10.30 a.m.-4.30 p.m.
Wednesday	10.30 a.m.-4.30 p.m.
Friday	10.30 a.m.-5 p.m.
Sunday	10.30 a.m.-4.30 p.m.

All N.Z. M.T.

Note.—At present "daylight saving" is being observed at New York, therefore these times are one hour earlier at present.

Although not mentioned in the schedule as supplied by the G.E.C., 2XAD and 2XAF are both on the air from 10.30 a.m. till 4.30 p.m. on Sundays (our time).

## FOR SALE OR EXCHANGE

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**FOR PRIVATE SALE**, Seven 20-Volt Units Fuller "B" Batteries; large capacity; in perfect condition; cost £9 9s. What offers? Write Radio, care 110 Southern Cross Building, Auckland.

**KEEP** your "Records" neat. Filing covers, strong, printed and pierced. 1/6 post free.—"Radio Record," P.O. Box 1032, Wellington.

**HAVE** you obtained your "Listener's Guide"? 2/6 from booksellers and radio dealers, or 2/9 post free from the publishers, Box 1032, Wellington.

**YOU** can save money by writing for our special radio mail-order price list. Electric Lamp House, 27 Manners Street, Wellington.

## A Danish Short Wave Station.

SINCE the beginning of April the Danish short-wave station in Lyngby has re-broadcast the Danish programmes. At first the transmissions were on 31.6 metres, later on 49.5 metres, and now the station is experimenting on 19 metres. At present the energy is about 1 K.W., but it may later be raised to 10 K.W.

## Konigsusterhausen's Short Wave Station.

AFTER delays caused by unprecedentedly severe weather, good progress has been made with the German short-wave transmitter at Konigsusterhausen. The first tests are expected to begin shortly.

## Broadcasting on Ultra-Short Waves.

EXPERIMENTING with so-called "ultra-short waves," of little more than 3 metres, have been carried out by the German Ministry of Traffic, and by Professor Esau, the well-known Jena physicist, and other scientists. They are now being continued with much shorter wavelengths, down to 12 inches. It is believed, moreover, that within a year wavelengths as low as 8 inches will have been so developed that they can be employed practically.

## Reception During Past Fortnight.

MY log is rather "patchy" for the last week or two, so will give a summary of what has been heard.

As 5SW announced that they would commence half an hour earlier on Empire Day, I rose at 5 a.m. to hear Mr. Baldwin speak. Being a little late, the station announcement was missed, but heard "Big Ben" strike the half-hour (6.30 p.m., London), followed by a band playing military airs, concluding with "Rule Britannia."

5.6 a.m.: "Onward Christian Soldiers," by band and massed people (very good).

5.9 a.m.: Band, a well-known tune, but can't name it.

5.13 a.m.: Some military orders heard, then "Land of Hope and Glory," by band and people.

5.19 a.m.: Prayer of thanks for the King's recovery, "Lord's Prayer," and further prayer. (These were all 100 per cent. readable).

5.23 a.m.: Band.

5.28 a.m.: Cheering and clapping, then Mr. Baldwin commenced his talk by referring to "listeners in our mighty Empire," etc. This talk, which was only about 50 per cent. readable, concluded at 5.40 a.m., followed by "O God, Our Help," by the band and people.

This concluded a very interesting reception. Reception from 5SW has been the average from 5.30 a.m. Strength about R7-8.

Another interesting broadcast was heard. This was 2XAD on Sunday, May 26. A line was connected with Fort Worth, Texas, to allow listeners to hear the roar of the engines of the army monoplane "Question Mark," which at the time of speaking had broken the world's record for a sustained refuelling flight. As an electric storm had forced the flyers to go 30 miles away for safety, the machine was not heard. However, an interesting description was given of the effort, describing how the refuelling was

done and by whom. The wives of the aviators, Kelly and Robbins, had a few words to say to "their unseen audience." One, who was a seven weeks' bride, advised girls not to marry an aviator.

On the same day DHC, Berlin, was well received here, both direct and re-broadcast by KDKA for reception by Commander Byrd and his party.

PCJ has been, on the whole, up to his usual high standard. On Saturday, May 25, at 3 p.m., they tried to broadcast the singing of the birds at Hilversum, where their transmitter is situated. They stated that they were right in the country and had placed the microphone on the window-sill to try and pick up the "birdie." "The only 'birdies' I heard were one or two distant ones of the radio variety."

8XAI, the short-wave station of WLW, comes in much better now. They often carry on till after 5 p.m. Their wavelength is supposed to be 52.02 metres, but I make it about 49.4.

W6XN (KGO), with their "Spotlight Revue" and the "Trocaderans" dance music later, come in well till 7.30 p.m. on Wednesdays. Morning reception from this station varies, at times barely readable, while a morning or two ago they were up to R7 by 7.30 a.m.

A stranger on about PCJ's wavelength has been heard several times. One morning at 6.30 a.m. a clock struck 8, the striking was quicker and a higher note than Big Ben. A few foreign words were spoken, and then a band. The time locates the station as Central Europe.

A German station on about 40 metres, possibly DOR, has an announcer who includes a call in English besides two in a foreign tongue. The call could not be made out; he starts with "Hullo, this is shortwave station—Holland, Berlin, etc"; reports on reception are also asked for. I cannot understand Holland and Berlin being mentioned, as they are together, but this is also done in each call—English and foreign.

3ZC Christchurch has been testing quite a great deal just below 50 metres during the past few days. Volume both afternoon and evenings has been from R7-8, with slight fading. Modulation very good.

W2XAD is the best American short-wave station just now, being quite good speaker strength from midday till 3.30 p.m.

## Additional Notes

DURING the last few weeks SW listeners have not had much to complain about as far as variety is concerned. On Saturday and Sunday afternoons DHC and KDKA (W8XK) are usually testing. DHC is very loud until 4.30 p.m., but weakens later. DHC's wavelength is 26.2 metres, and the power used is 50 K.W. Every Wednesday evening until 7.30, some good entertainment may be heard from W6XN on 23.35 metres. Signal strength is usually R9. W6XN nearly always signs off at 1½ minutes past 12 p.m., PST. From station PCJ, Holland, on May 18 and 25, Mr. Sellens was "called" by the announcer.

The American stations W2XAD and W2XAF come in at good volume in the afternoons. Thursday, May 30, I tuned in to the Java Station on 37.5 metres, relaying PH1, Holland. Strength was R9, and very steady, before the relay, but PH1 was spoilt by fading. I wonder if any SW listener could oblige me with the call of the Java Station?

## From Canada to Antarctica

MR. LESLIE JONES reports interesting reception of KDKA and Little America. Station CJRX, Winnipeg, Canada, broadcast on Saturday afternoon (New Zealand time) a special programme for the Antarctic party. This was picked up by KDKA and rebroadcast by its experimental shortwave station, W8XK.

As is customary WFA (Little America) on 22 metres replied but the reply was not received in Wellington, clearly. The Eleanor Bolling (WPAT) spoke to the Antarctic party, saying that daylight reception in Dunedin was excellent both from W8XK and WFA.

Evidently Byrd was not being received too clearly in America, for KDKA requested him to try 32 metres. This change apparently was for the better.

KDKA reported reception from Winnipeg a little mushy and the latter later discontinued the broadcast for a few minutes.

The feat is another of the fine accomplishments of the two-way communication between Byrd and America. Situated 1025 miles from the rebroadcasting station W8XK, CJRX was picked up and rebroadcast one-third of the circumference of the earth with almost no losses in quality except latterly, when its transmission became mushy.

At 5.1 New Zealand time KDKA closed down, the announcer bidding everyone "Good morning."

## PICTURE transmission is being carried

out almost nightly from 10 p.m., GMT, by the Nauen (Germany) wireless telegraphy and telephony station which, at that time, is in two-way communication with Buenos Aires. In the intervals, conversations may be heard from both transmitters, Nauen working on 26.22 metres and the Argentine transmitter on 29 metres.

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