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AND

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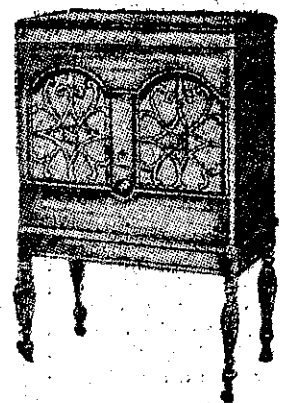
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# Radio News of the World

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IT is surprising to learn that fewer than 50 per cent. of the SOS messages sent out by the British broadcasting stations are successful. During 1929 the number transmitted was 881, of which 367 reached their objective. The fruitless calls numbered 475, while the results of 39 were unknown.

**ARGUING** for "the human rather than the mechanistic medium," the American Federation of Musicians is trying to persuade the Federal Radio Commission to restrict the periods during which broadcasting stations may transmit gramophone music in place of "living orchestras."

**THE** Indian Government formally took over the broadcasting service recently, paying £22,500 for the assets of the now non-existent Indian Broadcasting Company. The Government is adopting strict methods for dealing with the "pirate" nuisance, which has hitherto been regarded as the main cause of the failure of Indian broadcasting.

**THE** recent epidemic of wireless set thefts in England has given rise to a theory at Scotland Yard that a central organisation exists for the disposal of stolen apparatus. It is believed that component parts are extracted for incorporation in sets of other makes. These "mongrel" receivers are then sold in market places.

**TO** minimise the amount of "radio piracy," the Indian Radio Corporation of Calcutta, is offering twenty crystal sets of its own manufacture each month to listeners who give information leading to the detection of unlicensed sets. The champion sleuth for the month will receive a special prize of a three-valve set, complete with loudspeaker.

**COAL** mining to music is the prospect suggested by interesting tests carried out recently in Somerset, England. The receiver picked up the local on full volume while on the surface, but ceased to function immediately it began to descend. At the bottom of the shaft, however, at a depth of one thousand feet, the transmission was again picked up at full strength.

**THE** libraries in Sheffield, England, are setting an example to the country by allowing the public free facilities for listening to broadcast talks. Sets have been installed in the various branches, and visitors are invited to join the discussion groups which have been formed in connection with the B.B.C.'s adult education campaign.

**LISTENERS** who are troubled with interference from electrical apparatus will be interested in the following. At a recent meeting of an Austrian society for healing by natural science methods, a wave-filter for the prevention of radio interference was exhibited by two Vienna physicists. When a diathermic apparatus was placed before a loudspeaker, reception was obliterated, but when the filter was introduced the interference was completely eliminated.

**THE** Paris fire brigade is now equipped with a wireless transmitter at headquarters, receivers being installed at local depots.

**PRISON** conditions in the United States seem rather lax. Occasionally one hears realistic descriptions of the royal time enjoyed by American convicts. Nevertheless, the PCJ (Holland) station director was agreeably surprised to receive a recent report from the Missouri State Penitentiary! One of the prisoners, who gave his identity as No. 32400, stated that he regularly listened to PCJ with a four-valve set, which he had designed, and built himself which "engaged on State business."

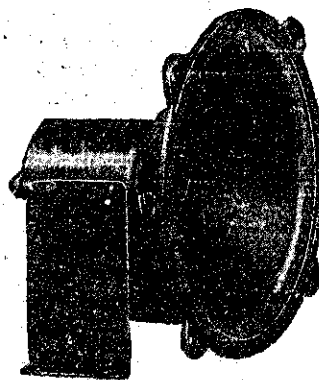
**RADIO** stations in Canada are regularly used by the Construction Department of the Canadian National Railways to broadcast messages to their engineers in the field, and it is quite a common occurrence for Canadian listeners to hear such messages going out. The survey parties carry small receiving sets with which to tune-in for instructions at certain hours every week. Atmospheric conditions are said to be ideal for broadcast reception in the northern latitudes.

**THE** sudden popularity of all-electric receivers in Germany is reported to have produced a slump in battery sets, prices of which have been reduced by 30 per cent.

**A** SPECIAL feature of interest at the recent Radio Exhibition held at Havre, France, was the Wireless and Gramophone Museum. Many of the sets dated back to 1912, while one crystal set was larger than many modern super-heterodynes. Many were sets used during the war. One of these consisted of a crystal set in a stylographic pen to which earphones could be attached, and which was used for listening to German wireless communications. Other exhibits included a 1000 amplifier, a Tesla coil, an electrolytic detector, and a Marconi magnetic detector. The loudspeakers exhibited with these sets were equally old-fashioned, being of the "sugarloaf" type. Old gramophones and phonographs, dating as far back as 1879, were also included in this museum, some of them possessing motors which were worked by hand!

Radio Listeners' Guide, 1930 Edition.  
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# Both Kicks and Ha'pence

## For Those Who Know "Mike"

says

Elsie Lloyd



**O** I get microphone fright? Well now and again one has it badly. Some one misses his cue, or a noise fails to present itself just as everyone expects it, and we all feel suspended in mid-air—waiting—waiting—

It is terrible sometimes, though (thank heaven!) not often. I remember one occasion, when a particularly tense episode was to be punctuated with a revolver shot. One of the party stood near the microphone with a piece of folded cardboard in his hand—the sort of thing with which schoolboys shatter the silences at moments when everything should be still.

The play had run smoothly until the time for the shot, and we had received telephone messages of congratulation. But the "revolver" refused to function, despite perspiring efforts of the man who held it. Not even an Edgar Wallace "plop" came from the cardboard, and the party waited with agonised perplexity, until someone relieved the tension by stepping briskly to the "mike" and smartly clapped his hands together.

My first impression was one of fear, but of what I simply couldn't say. Real fear, it was—I absolutely trembled—which seemed very strange to me, since I had played many times before in amateur shows in London.

The trouble is, I think, that one doesn't know where he stands when facing the microphone (figuratively, I mean) for the first time. With a visual audience you "feel" you have them with you, but with an unnumbered radio audience . . .

**NOW**, of course, I know exactly where I stand. I actually have an idea when broadcasting that I do "feel" an audience somewhere. I believe there is "something" coming through to us. This sounds somewhat spiritualistic, I suppose, but there it is.

Broadcasting is enjoyable work, and people are very kind, particularly those at 2YA. But we gets lots of kicks, plenty of them, as well as many letters of appreciation from all over New Zealand, which help us considerably (the letters of appreciation, I mean) to do our best.

I well remember one night when my husband and I were making love to each other in a play from 2YA. Someone rang up to say the love-making wasn't at all convincing. How could it be, when my husband stood beside the microphone, grinning hugely, while I depicted him in terms of loving extravagance?

Which brings to my mind the word "atmosphere," and of the difficulty one sometimes has faithfully to produce it.

Not only must voice inflection convey situation or sentiment, but one has to create mental pictures for thousands of people who cannot follow our gestures, helping listeners to live in the period or circumstances portrayed by the sketch.

Imagine the difficulty of depicting extreme fear to a microphone! Sometimes when we are working very hard I wonder what people are doing; whether they are saying: "Let us shut off this stuff," or whether they are feeling kindly disposed. And then the station telephone bell rings, and Mr. Announcer gives us some cheery message.

Quite a lot of people think it the simplest matter to broadcast—a matter of gabbling a few lines from a book—but it is far from that. Everything, noises and all, is carefully rehearsed before public presentation, and everything is most strictly censored.

Nothing which might hurt people's susceptibilities is allowed to pass the "mike," unless, of course, it is thought that by too heavy censorship a character or some situation might be upset. One cannot have a tippler saying "Dear, dear!"—he would say something desperate. Women are more appreciative of plays, but that is because they are more easily moved in their emotions. Make them cry, and they enjoy it. Men like detective plays. They

like to sit guessing who committed the crime, but they like to get the surprise at the end. Some people, particularly those in the backblocks, like to have thrills running up and down their spines. People out back, who cannot get to the talkies often, and who are not so critical as city folk, who see and hear so much, like thrillers.

So we really endeavour to reach people who cannot see town shows—they are the people we work for, and for city people who like to sit 'round their fires listening to the radio players.

It is gratifying to receive kindly letters of congratulation. But there are a few who seem to stand at their telephones, awaiting the opportunity for violent criticism. One's main difficulty before the sensitive ear of the "mike" is absorbing a part completely alien to everyday life; especially those sort of things which would never happen to him (or her). The other is wondering how we sound.

I would love to hear myself over the air, because I feel certain it would be more helpful than anything else I know. It would be nice to have a record taken, so that we could obviate mistakes which sometimes creep in, careful though we may be.

Artists awaiting their turn at the studio often listen-in to each other's broadcast, then they try to help with frank criticism. I mean frank criticism.

For example. One man attempted to make a noise like a fog-horn, but succeeded only in making a noise like a cow looking for its young. We told him so.

One fights shy of destructive criticism, the sort which sweeps over the telephone wires with: "That was awful . . . the whole thing . . ." but we do welcome constructive criticism, which helps us enormously.

It is harder to please broadcasting audiences than to play before people in a theatre.

If one is giving a play "on the boards," and the subject is one which does not appeal to theatre-goers, they merely stay away. But with a radio audience it is vitally different—and difficult. In paying their annual license fees, radio listeners feel they are entitled to something good, and if what they receive isn't good they switch off their sets and that's all there is about it, except that complaints are sure to follow—and rightly so.

The theatre audience simply stays away—that is the tenor and substance of their complaint.

To overcome the difficulty of pleasing everybody (or almost everybody) we give wide selection, and thus are able to contribute a different type of play every time we broadcast.

Sometimes listeners offer most helpful suggestions. "The voice of So-and-so is coming through distorted," comes the information over telephone. Mr. Announcer, or someone connected with the studio, conveys the information to the artist, who steps farther away from the "mike."

Many artists have told me that for a long time they found it extremely difficult to convey an impression of extreme fear in some episode which demanded it.

Remember, one is faced with an ice-cold, dispassionate instrument that gives one no quarter.

It is hard to play in cold blood, as it were, but before the microphone the fear you express as a dramatic character enjoins you to be really afraid.

If you are not, if you do not really live and breathe the life of your character subject, you have failed.

In "Danger," three people are trapped in a coalmine, where water is rising. To place oneself in the fear-full state of mind demanded by the play, it is essential one sees in a vivid mental picture himself (or herself) as one of the three drowning people. And then someone says that radio artists simply read their parts!





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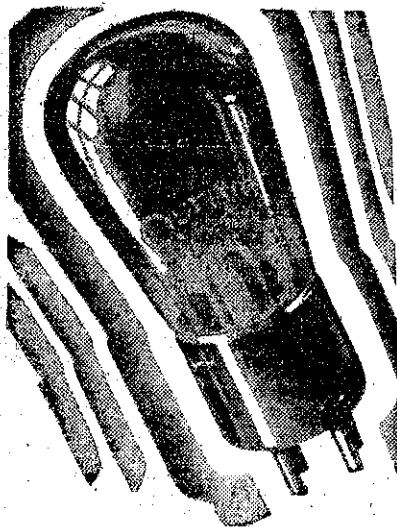
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## Wireless and Weather "House of Disappearance"

**I**N a paper on the subject of "Weather and Wireless," read before the Royal Meteorological Society by Mr. R. A. Watson Watt, B.Sc., F.Inst.P., A.M.I.E.E., there is a section dealing with the always-present problem of reception of the "indirect" ray compared with the reception of the "direct" ray.

Within the "service area" of a broadcasting station, the "direct" ray is not very strongly affected by conditions of light or dark along its path. By "service area" is meant that area of a broadcasting station within which the direct ray retains an energy level sufficiently high to give good signals in an average receiver.

Beyond this area the "indirect" ray operates and is a much more fickle and therefore a much more interesting element.

In his lecture, Mr. Watt refers to the question in the following manner:

"The service area is characterised by the relative constancy of signal strength given by the direct ray. It might, at first glance, appear that it could be indefinitely extended by improvement in sensitivity of the 'average receiver'."

"But, in fact, irrespective of a wide range of variations in receiver sensitivity, it is found that outside a very limited service area lies a wide region in which signals may be received during daylight hours, but in which, once night has fallen, signals are sometimes very strong indeed; sometimes, on the other hand, they weaken to complete inaudibility, and violent alternations in strength may occur within a few minutes."

"Still further from the transmitter the signals may actually be less variable than within this zone of acute fading. The whole group of phenomena may be satisfactorily explained by postulating interference effects between the direct ray and one or more indirect rays; when the direct and indirect rays arrive by paths of such length as to reinforce one another at the receiver (the crest of a wave in the direct ray coinciding with a crest in the indirect ray) abnormally strong signals are heard; at times they will so completely neutralise one another (the crest of a wave in one ray filling the trough of a wave in the other) that the signal vanishes."

"The service area is that in which the direct ray is overwhelmingly stronger than the indirect; the zone of bad fading is that in which the direct and indirect rays are of comparable strength, so that opposition of phase can give almost complete neutralisation. In the outer area the direct ray is much weaker than the indirect, so that the residual fading phenomena are due to modifications and interactions among the indirect rays themselves."

"The fluctuations of the indirect ray are to be ascribed to irregularities in the upper conducting layer, to varying ionic cloudiness, if we maintain our meteorological language. In view of the limitation of effective service area for the direct ray it will be seen that the greater part of the world's wireless communications is effected by indirect ray."

"In fact, we signal not by directing a wireless searchlight at the receiver,

## Radio Play from 2YA

**O**N June 23 station 2YA will broadcast a radio thriller bearing the intriguing title of "The House of Disappearance."

This play was the first to be specially written for radio production in New Zealand, and aroused much interest on its initial production about a year ago. Many requests for a repetition have since been received. It is a play in seven scenes, and was written by Mr. Victor S. Lloyd, the well-known producer of many highly-successful microphone dramas.

**T**HE plot, which is based to a limited extent on the novel of the same name by J. Jefferson Farjeon, depends largely for its effectiveness on atmosphere.

It would spoil the enjoyment of listeners to divulge the plot, which is full of surprises and unexpected twists. We may say, however, that there will be few "amateur detectives" who will anticipate the solution of the mysterious disappearances of several people from the house of Mr. John Elderly.

There are thrills in plenty, leavened with typical cockney humour by Geary the labourer, who is literally dragged into the House of Disappearance by a high-handed inspector of police.

One scene takes place in the heroine's apartments, with a gang of criminals battering their way in through door and window, leaving the hero and heroine no apparent means of escape. Another scene takes place inside a safe in which the hero and heroine are locked—and a third scene is in a secret underground passage.

**T**HE characters include a Cockney labourer, a suave, mysterious doctor, a sinister chauffeur, a hectoring inspector, and a Member of Parliament.

Altogether, the entertainment will supply many exciting moments, and listeners may rest assured of a first-class evening's enjoyment.

## Picture Transmission

**P**ICTURE transmission and reception apparatus is en route to South Africa for installation at Kodak House, the headquarters of the South African Wireless Telegraph Company, Cape Town. It is intended to utilise the beam system for the exchange of newspaper photographs and other illustrations. When the installation is completed, tests will begin between Cape Town and Radio House, London, the wireless headquarters of Imperial and International Communications, Ltd.

but by lighting up the electrical cloud layer with the searchlight and letting the receiver read the lighting-up signals. This searchlight analogy is strictly accurate for a 'beam' transmission, for 'broadcast' transmissions the process is like that by which we in Slough infer the existence of London by night, from the diffuse illumination of a cloud layer by the broadcast lighting of the streets."



# An Evening with N.Z. Composers

## Special Feature Programme from 3YA



**"NEW ZEALAND NIGHT,"** a programme consisting exclusively of the works of New Zealand composers and authors, will be broadcast from 3YA on Thursday, June 26. This will be an entertainment to delight all listeners and at the same time demonstrate the high standard attained by some of New Zealand's best composers in both vocal and instrumental music.

The 3YA Musical and Dramatic Committee, which suggested concerts of this nature, is to be commended on its initiative and on the zeal and help it has displayed in the organising of the programme. The coming concert will be the first of a series.

The chairman of the committee, Mr. T. W. Dent, will open the concert with an explanatory prologue and will make brief remarks concerning each of the composers.

Some of the finest artists in Christchurch have been engaged for the evening and full justice will be done to the various items. The performers will be Miss Lilian Hanham (soprano), Miss Mary Taylor (contralto), Mr. Harold Prescott (tenor), Mr. T. D. Williams (baritone), Mr. Bernard Barker (violin), Miss Pearl Stringer (cello), Miss Irene Morris (violin), Mr. Harold Shaw (elocutionist) and the Christchurch Broadcasting Trio. In addition to these there will be the Concordia Chorus, the Christchurch Orchestral Society's Orchestra, the Avonside Branch of the Girls' High School, and the Concordia String Quartet.

Prominent among the composers whose work will be presented is Miss Dorothy Filkins, a clever young lady of Christchurch. She was recently

awarded a prize by the Imperial Culture Society of Christchurch for her work in setting to music Shelley's poem "Prometheus Unbound." This cantata will be sung by the Concordia Vocalists, with soprano and contralto solos and orchestral accompaniment. Three other compositions by Miss Filkins will also be presented: "Slumber Song" (with 'cello obligato by Miss Pearl Stringer), a 'cello solo, "Nocturne," and a string quartette, "Quartette in G Major."

Mr. H. Rossiter, a well-known Christchurch musician, will be represented by two solos, "Zealandia" (words by the late Mr. R. Thompson, of Christchurch) and "O Salutaris Hostia" (with violin and 'cello obligato by Miss Irene Morris and Mr. Harold Beck).

There will be two overtures composed by Mr. R. A. Horne, of Christchurch, and his very fine work "Ave Maria" will be sung as a tenor solo by Mr. H. Prescott, with piano, organ and violin obligato by Misses D. Davies and Irene Morris. Mr. Prescott will also sing "Achal by the Sea," composed by Rosada Lawrence (Mrs. R. A. Horne). This song was sung by Miss Edith Harby recently at 3YA when the composer was present.

Miss Alice Forrester, who was the first lady in Australasia to be awarded the degree of Bachelor of Music, will be represented by the solo,

A baritone solo, with chorus by the Concordia singers, "We're Coming Back, Zealandia," has been composed by Mr. Arthur Lilly, A.R.C.O., organist at Holy Trinity Church, Avonside. The words to the song were written by Mrs. F. C. Jenkins.

Mr. Gordon McBeth, one of whose compositions, "Berceuse," will be played by the Christchurch Broadcasting Trio, is a Wanganui musician. He was studying in Germany when the war broke out, but fortunately was able to leave that country and saw the war from the British side of the Western Front.

Mr. Frank Hutchens, the talented New Zealander who is at present Pro-



**MISS MARY TAYLOR,**  
Another participant in the New Zealand programme. Miss Taylor will sing "Search Me, Oh God" (Alice Forrester).  
Photo Stefano Webb.

former Conservatorium student and a pupil of his, will play. A trio to be played by the Christchurch Broadcasting Trio is also a composition by Mr. Hutchens.

No New Zealand programme would be complete without Maori melodies, and two will be sung by Miss Mary Taylor—"Aroha" (by Te Rangi Pai) and "Haere! Haere Mai," (by Ka Te Kaura). The latter composer will be better known when it is known that she is Miss Ka Winiata, a member of the Wanganui Maori party which performs at 2YA.

**MISS IRENE MORRIS,**  
A talented Christchurch violiniste, who will take an important part in the "New Zealand" Night.  
—Stefano Webb, photo.

Two elocutionary items will also appear on the programme. These will be "The Passing of the Forest" (by "Elegie," a violin solo to be played by Mr. Bernard Barker, and "Andante," which Miss Dorothy Davies, a by Mr. Harold Shaw.



**MISS DOROTHY DAVIES,**  
Who will, as a pianiste, share in the New Zealand Night special programme.

"Search Me, O God," to be sung by Miss Mary Taylor.

One of the compositions of Mrs. Mai Burns-Loughnan, another Christchurch composer, "I Gave You a Gift," will be sung by Mr. Williams, and "Souvenir," from the pen of the same lady, will be played by Miss Irene Morris as a violin solo.



**MR. DUNCAN BLACK,**  
a popular Auckland vocalist, whose next appearance from 1YA is scheduled for June 26.  
—S. P. Andrew, photo.

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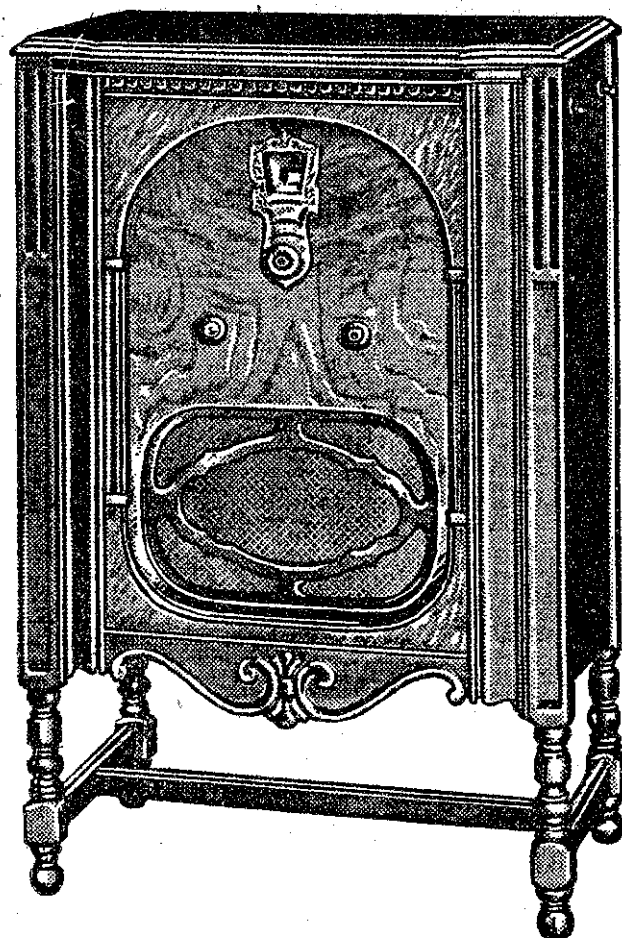
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# The New Zealand Radio Record

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## Electric Home Journal

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX, 1032, WELLINGTON.

Published Weekly. Price 3d. Subscription Post Free in advance, 12s. 6d. per annum; booked, 15s.

Literary communications should be addressed: "The Editor"; business communications to "The Manager"; technical communications to "The Technical Editor."

Advertisers are asked to note that alterations of advertisements should be in hand Friday of each week for insertion in the succeeding issue, printed Tuesday, bearing Friday's date. No responsibility is accepted for blocks remaining unclaimed three months after each insertion.

RADIO PUBLISHING COMPANY OF NEW ZEALAND, LTD.,  
P.O. Box 1032, WELLINGTON.

WELLINGTON, FRIDAY, JUNE 20, 1930.

### PRESS VERSUS RADIO IN AMERICA.

NO other country has shown the stupendous development in either the radio or Press field that the United States has. These are two mighty forces, and concern is felt by leaders on both sides as to the ultimate outcome of development. It is undoubted that the growth of radio has been facilitated by the vigour put into its encouragement by numerous leading American papers. By establishing their own radio stations many papers sought to render a service to their community and establish themselves more favourably in the minds of their readers. Of the scores of such stations that were established in the early years, a limited number only remain prominent among the leading 150 stations which now, it is admitted, dominate the air in the United States. Some two years back the number of stations listed exceeded 800, but that number has steadily declined with the growth of amalgamation and co-ordination, and the inevitable elimination of weak individual units.

TO-DAY, therefore, the position is becoming clarified, and protagonists on the side of Press and radio are assessing the factors which determine future growth. Radio in the United States has been largely built to its present standard through the advertising revenue provided by what are termed sponsored programmes. For instance, huge national organisations will provide artists of note for a certain regular hour each week, advertise them extensively, and give the hour to the American public with but slight mention of their product. That is advertising in its finest development. Other advertising is of a cruder and more direct nature. Nevertheless both types exist, and have grown immeasurably in volume in recent years, until to-day the advertising revenue at the back of radio broadcasting stations runs to between four and five millions sterling per annum. Simultaneously with that development, the advertising revenue of the Press has shown a decline, although whether this is attributable to diversion of moneys to the radio field or a natural decline through business factors cannot be definitely stated.

THE position, however, is so thought-provoking that at a recent conference in Washington a debate occurred between a prominent editor and the head of the National Broadcasting Company. From the address of the latter an interesting glimpse is obtained of the broadcasting situation in the United States. According to the statistics advanced by Mr. Aylesworth, president of the National Broadcasting Company, there are to-day in the United States about 14,500,000 radio sets; it is claimed that 80 per cent. are in use more than 2½ hours a day, and that an average of about

four people listen to a radio set during that period. The radio audience, therefore, is conservatively set at approximately forty million Americans for 2½ hours per day. The National Broadcasting Company does not in itself own the chain it operates. It links up approximately 75 stations, independently owned, with a programme service. Twenty of these stations are owned by newspapers. In discussing the future of radio, Mr. Aylesworth said that the ideal news feature of radio was a sporting event planned a long way ahead, with announcers sent to the field of action, in order to give a detailed description. In spite of the interest evoked by such a radio broadcast, he contended no disservice was rendered the Press by minute-to-minute description. The public bought their papers as before for detailed reading. Neither did the broadcast affect attendance. Tex Rickard, the famous promoter, long held that it would, but he changed his mind on the night of the Dempsey-Tunney fight, when the attendance of the public topped all records in spite of the fight being broadcast.

IN the course of his speech, Mr. Aylesworth made a contrast with the situation in Britain. Naturally enough, he claimed that the situation in America was better, and attributed the fact to newspaper backing. In this Mr. Aylesworth may be credited with a little natural partisanship. Whereas admittedly Britain has but some two and a half million licensed listeners compared with the fourteen and a half sets claimed in the United States, these figures may not be absolutely correct. It is known that there is a considerable amount of piracy in Britain, and the actual number of sets might easily be three million. Similarly, the fourteen and a half million sets credited to the United States are doubtless based upon trade sales. Many of those sets unquestionably will have been discarded, so that the figure given is doubtless on the high side. Allowing for those factors and the relative difference in population, however, it can be believed that the situation, from the numerical point of view, in the United States is very satisfactory to the trade. The credit for this may be given largely to the fact that American organisations held the primary patents in connection with radio, and, having at their door a huge market and the economic possibility of mass production, they were able to exploit their field more quickly and effectively than Britain. In the quality of programme and service to the listener, in the use of radio as an educational factor and a source of musical culture, Britain will more than stand up to any comparison with the United States, where the listener, as Mr. Aylesworth himself admits, suffers from a plethora of stations and a plenitude of hours—some stations running 20 hours out of the 24. Much capital invested in stations will, in his own words, fade away, and as they go the responsibility of those remaining will intensify. Britain's service was organised from the beginning. America's service is becoming organised through pressure of necessity.

### British Rugby Tour Children's Session

### "Radio Record" Score League of Nations Project Cards

IN connection with our announcement that score cards issued by the "Radio Record" were available on request to listeners forwarding a self-addressed envelope, several subscribers have written suggesting that the score card should be enclosed with the "Radio Record" when being posted each week. This would certainly be an efficacious and economical method of distribution, if it were not for the fact that the postal regulations prohibit this course being taken. In those circumstances the best we could do was to supply our bookseller agents with bulk quantities for distribution, and announce to our regular subscribers that score cards might be procured either from booksellers or ourselves.

A MEETING of the 4YA Children's Session Advisory Committee was held on Thursday, June 5, Captain Chandler (representing the Salvation Army) presiding, and there were also present: Miss Hare (representing the Y.W.C.A.), Miss Feichley (representing the Girl Guides' Association), Miss Dutton (representing Presbyterian Social Service), Pastor W. D. More (children's session organiser), Mr. Mackenzie (station director).

Mrs. Denton Leach, representing the League of Nations, was also present, and she spoke on the desirability of interesting the young people in the work of the League of Nations. Various suggestions by which the aims of the League could be advanced were discussed.



## No Better Advertising Tribute to Broadcasting

THE Broadcasting Company is receiving many congratulatory letters of appreciation as the result of the broadcasting of the British matches. All the announcers engaged have been very highly commended for their efforts.

Indicative of the feeling which prompts listeners to write is the following letter received by 3YA from a

### "The Runaway Girl"

THE Dunedin Operatic Company will open a season with "The Runaway Girl" at His Majesty's Theatre next week, and this very popular musical comedy by Caryll and Monckton is certain to be a great draw. An excellent cast has been chosen. On the last night of the season a broadcast on relay will be carried out by 4YA.

correspondent in North Auckland who heard the British v. Canterbury match on Saturday, June 7:—

"Please allow me to congratulate you on your splendid performance this afternoon in relaying the big football match.

"Short of television, the picture of the play could not have been better given to distant listeners. Your sports announcer is undoubtedly at the head of his class.

"You may be interested to know that I am 160 miles north of Auckland—yet I received your station on the speaker. From 3.15 p.m. onward I had an increasing amount of reserve power. I, and thousands like myself, have not a single chance of ever seeing 1 per cent. of the sporting events throughout New Zealand, so I hope the Broadcasting Company will continue their good work. I know of no better method of advertising sport than broadcasting, which only makes one keen to actually see the events."

## Travelling to Music

### Radio-equipped Omnibuses

RADIO equipment for motor-coaches in urban service, bringing the programmes of the most popular broadcasting stations to passengers while they are being conveyed between their homes and offices, is announced by the motor coach division of Dodge Bros., of Detroit, U.S.A. A receiving set designed especially for bus use, has been perfected, and will be installed in all current production buses and motor coaches as the demand for this innovation becomes more general.

Three radio-frequency stages are embodied in these receivers, and enough power is available to drive two loudspeakers—one located directly above the windscreen, and the other in the rear of the coach against the roof. Special precautions have been taken against any possible interference from the electrical system of the bus.

# In Everyday Language

## VALUABLE TESTS FROM 2YA

### Frequencies, Overtones and Harmonies

ON Saturday, June 21, two frequency tests will be carried out by 2YA—one under daylight conditions at the close of the broadcast of the First Test, and the other under night conditions, at 10 o'clock. These broadcasts will give listeners an opportunity of testing out the capabilities of their receivers.

The sensation of hearing is caused by sound waves which enter the ear, impinge on the membrane or drum, and set up vibrations which register in the brain. Different frequencies affect different parts of the membrane, creating the sense of tone, noise, harmony, speech—all depending on frequency, although differences in structure or sensitiveness in different human ears cause two persons to give different interpretations to the same sound. The range of frequencies that the human ear can detect varies considerably, the average being from 16 to 15,000 cycles per second.

Only the radio receiver that reproduces truly can live. When an art is young we suffer imperfections, but behind the scenes men are striving—some to give the public what it thinks it wants, a whim of the moment; others to give perfection, a lasting monument.

Faithful reproduction entails a perfect radio receiver. A simple formula, but in the term "faithful reproduction" there are many factors, and frequency range is not the least important.

#### Frequency Range.

NOTES of music and speech consist of a fundamental frequency with various harmonics and over-tones. The character of the music, the type of instrument, different words, letters, etc., depend upon the harmonics, but the pitch depends upon the fundamental frequency. Musical instruments and voices have definite fundamental range. The male voice fundamental frequency averages around 120 cycles per second, while the female fundamental voice frequency is about 240 cycles, an octave higher. However, over-tones exist in some speech sounds up to 8000 per second, for while female speech has less over-tones than male, they extend up to 8000, and the richest over-tone area of the male voice is between 3000 and 5000 cycles per second.

It is these differences in the number and combination of harmonics and overtones that enable the human ear to distinguish between different persons' voices. Likewise, it is these different harmonic combinations that enable the human ear to

distinguish between a violin, 'clarinet, French horn, piano, etc., when each instrument sounds or plays the same note on the chromatic scale of music. A 'cello solo may sound on some sets over some stations as a natural violin or saxophone would sound to the same human ear.

Many obsolete and present-day inferior receiving sets (transmitting sets, as well) cut off the higher frequencies. Cutting to 6000 eliminates the characterising features of the unvoiced sounds such as s, f, sh, th, z, etc., especially in the upper reaches of the female voices. This, of course, accounts for the disapproval of worthy soprano voices over earlier limited receiving sets.

In cutting off the low frequencies, tone colour or timbre is lost. Timbre is very important in music, as it is one of the factors that define the various instruments. The fundamental and the first three or four overtones are the distinguishing features. On the

#### Fundamental Ranges.

	Lowest Fundamental.	Highest Fundamental.
Organ .....	16	4090
Piano .....	25	4096
Bass viol .....	40	240
Bass tuba .....	42	342
Bassoon .....	60	480
'Cello .....	64	682
Bass clarinet ..	78	480
Trombone ....	78	480
Bass voice ....	80	342
Kettle drums ...	84	170
Baritone voice ..	96	384
French horn ...	106	860
Tenor voice ....	128	480
Viola .....	128	1152
Trumpet .....	160	960
Clarinet .....	160	1536
Alto voice ....	170	682
Violin .....	192	3072
Soprano voice ...	240	1152
Oboe .....	256	1536
Flute .....	256	2304
Piccolo .....	512	4608

other hand, if too many higher overtones are lost, "brilliance" and "definition" disappear.

Drums have fairly low fundamental, but are particularly rich in higher harmonics; cutting these high overtones renders their reception dull and dead. The organ, harp and piano have a fundamental range from 16 to 4000 cycles, and, as the chief characterisation of all these is a strong first octave, frequencies up to 5000 and somewhat

## Uncle Allan, of 4YA

OWING to removal to Oamaru (where he has been appointed local manager for Chas. Begg and Co.), Mr. Allan Young has relinquished his posi-



tion as "Uncle Allan" at 4YA. He was an extremely popular and successful radio uncle and he will be much missed by all the children who listen in to 4YA.

above should be unimpeded for good definition.

The ranges of voices and instruments are set out in the accompanying table:

THERE are many limiting factors in radio, some of which can be overcome. Some sets emphasise bass by sacrificing harmonics. There is really no more bass; the apparent tone is merely lowered. There are many extraneous noises which are caused by poorly constructed parts. On many sets the higher overtones down to 5000, and in a few cases even down to 4000, are cut off deliberately at the speaker. The untrained ear enjoys this overpronounced depth—for a little while. Other manufacturers use no limitative devices on the speaker, and are constantly striving to extend the frequency range up and down, relying on the increasing demand of a public rapidly becoming educated to perfect reproduction, which it has been found among other things equals reception of all frequencies from the fundamental even unto the third and fourth harmonic.

Clarity seems to be a stock selling argument, and, of course, clearness is desirable. It is, however, merely a result of proper design. Many obsolete sets gave forth "clear" sounds. Clarity without frequency range is not good music. A policeman's whistle can sound clear, but would give a very poor rendition of "Lohengrin."



THE recorded wax is numbered and carefully packed by the recorder. It is then sent away to the record factory, where it is given an electrical conducting face, being metallised with finely powdered graphite applied with a soft brush. This process requires extraordinary care and skill. The wax is then polished, all traces of surplus powder are removed, and it is left with a very highly finished surface. It is then placed in a suitable holder so that it can be lowered conveniently into an electro-plating bath, where copper is deposited upon the metallised surface of the wax. This thin deposited copper shell is then stripped off the original wax and becomes a "negative," having the recorded music grooves standing up above the surface of the copper shell.

This "master" negative shell is next filmed by a secret process for a second electro-plating bath where copper is grown on to the side bearing the recorded lines. This second deposited shell is stripped off the first and is a "positive" or "mother" shell, having the sound grooves as in the original wax. The "mother" shell is then prepared in the same way as the "master" shell, placed in another electro depositing bath, and the process repeated so as to obtain a working matrix shell which is a "negative" and has the recorded grooves standing out from the face of the shell. From the "mother" shell a number of matrix shells may be grown so that they can be sent to different parts of the world for record-pressing purposes.

A matrix shell, after nickel plating, is very carefully polished and then mounted on a heavy metal disc, and a central hole is accurately bored to ensure concentricity of the records which will be pressed from it. It is then screwed up into the dies of an hydraulic record-press. (see Fig. 2).

A few sample hard records are obtained from the three or four shells, of different performances of the same musical item, and these are submitted to the most searching musical and technical tests so as to ensure that the commercial records shall be as perfect as possible from the artistic, surface noise, and wearing quality points of view. Specially trained girls are engaged constantly upon the wear and surface testing of these sample records. One sample is settled upon as being satisfactory for wear and musical technique, and this shell, after passing the copyright investigation, is approved for the manufacture of records, for listing in the catalogue, and for advertising.

#### Commercial Manufacture of Records.

NOW let us consider the actual processes in the manufacture of the "hard" records as sold to the public.

The crushing load of the needle point on the groove at the commencement of playing is of the order of 20 tons per square inch, rapidly decreasing, as the needle wears, to about 2 tons per square inch at the end of the record. It will be realised that the record material

must be sufficiently tough to withstand these crushing forces.

The record ingredients consist of shellac, carbon black, flock, slate powder, copal and resin.

Many tons of raw shellac are obtained every week from the Tacchardia lacca insect in India, and are shipped to Hayes to be made into records.

The various materials are all ground up into extremely fine powders, which

culits" ready for the record-pressing operations.

The hydraulic record press consists of a pair of heavy steel jaws in which the two working matrices for forming both sides of the record are fixed. These two dies can be alternately heated and cooled rapidly. A pin projects through the centre hole of the lower matrix in order to form the central hole in the pressed record.

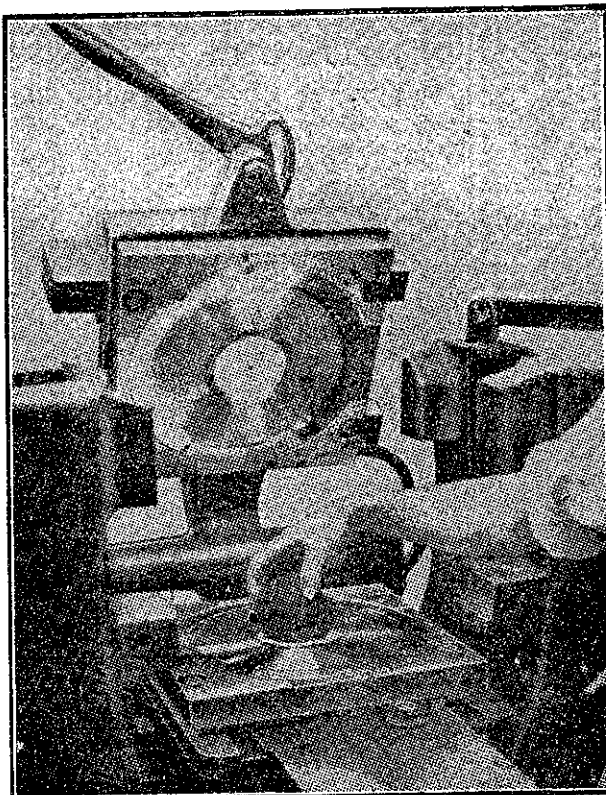


Fig. 2—Hydraulic record press, showing top and bottom shells screwed to the dies, and a lump of plastic material being placed on the lower label prior to closing the press.

are carefully screened, all traces of foreign matter being removed, and they are then mixed together in large rotating mixing machinery in exact proportions according to a secret formula which has been developed after years of experience by the record experts.

The mixture is heated up and worked up into the form of dough, which is transferred, in thick sticky slabs, to a water cooled calender, which feeds it out in wide plastic strips. These strips look rather like thick black blankets. The "blankets" are then further cooled, and are finally rolled out in thin brittle sheets, which are cut into small slabs of the size of large "bis-

The general sequence of operations performed by the pressman is as follows:—

The dies of the press are first warmed up, while the cooled "biscuit" is placed on to a hot table and is softened to the desired plasticity. The record labels are next put into position on the top and bottom matrices, the "biscuit" material is rolled up into a lump like Plasticine, and is placed in position over the centre pin of the bottom die (see Fig. 2).

The press is then closed, hydraulic pressure applied, and cold water is turned on to the hollow dies. When the dies are sufficiently cooled the press is opened and the record removed and

placed under a flattening weight to be dealt with when the press has been re-loaded for the next cycle.

In this condition the record is fit to be played, but it has to be examined for blemishes and the rough edge has to be polished to a smooth finish. The records now have to be placed in their envelopes, and are passed along to the copyright stamping section, where the necessary stamps are affixed. The records are then boxed up in batches, transferred to a huge store, from which they can be distributed rapidly to motor lorries or railway vans and so reach your local dealer. Over half a million records leave the factory every week.

This, then is the story of your shining record, and now, when you enjoy its music, you will appreciate, perhaps, the tremendous amount of research, experiment and organisation which have been put into the making of it.

## Tone Arm Balance

HOW often is it stated that one of the advantages of gramo-radio or of electrical gramophone reproduction is the fact that record wear is reduced.

The reason put forward for this is that a pick-up does not require such a great point pressure of the needle upon the record, that with most pick-up arms this pressure can be easily regulated, and that the actual grinding of the surface is reduced.

This sounds as though it might gladden the heart of gramo-radioites, for the cost of records is the biggest item of upkeep; but it is only a half-truth.

Record wear can be reduced; the important thing to remember is that sometimes the reduction in wear is so slight as to be not worth the trouble, and that sometimes the reduction in wear can be obtained only at the expense of quality.

The pressure upon the record surface in an ordinary mechanical-reproduction gramophone is in the nature of several pounds per square inch. It should be constant, but with most records it is nothing like constant; and this is often the cause of jarring on very high, very low, or very loud passages.

Obviously, then, there is a certain minimum pressure beyond which one cannot safely go. Below that minimum, very bad results will be experienced, with generally lower voltage swings delivered in the case of a pick-up, and in bad cases the needle may jump the groove. Beware of this, then, when adjusting a counterbalanced arm.

The tendency is all towards electrical recordings of greater brilliancy, and with most of the new records a pressure upon the record, in the case of a pick-up, not much less than that with an ordinary soundbox will be needed; so there is no saving in record wear.

With adjustable tone-arms the pressure can be reduced for the more valuable records.—N. Bell, in "Wireless Magazine."

# Metrodyne

HEAR IT

RADIO GRAMOPHONE

AT ROYDS-HOWARD CO. 553 COLOMBO ST. OPP. NIVENS

# Mullard

THE MASTER VALVE

Embodies all improvements known to Valve Manufacturers.

**"The Blue Danube."**

THERE is one composition that every newcomer to recorded music should have in his library, and that is the "Blue Danube Waltz." This, probably the best loved of the many works of "the waltz king"—Strauss, will be played in an orchestral version from 2YA next Thursday, but it is in the original pianoforte form it has gained popularity. There are many recordings, but the new H.M.V. by Josef Lhevinne is distinctive. This artist, new to recording, has made a great success of the "Blue Danube." He has given it a new interpretation, and by a superb touch has carried this out in a remarkable manner. The version (with concert arabesques) is refreshing and delightful, and can be recommended. H.M.V. 1201.

**"The Vagabond King."**

WITH the circulation of the sound film, the "Vagabond King," based on Friml's musical comedy of the same name, many of the delightful airs have been brought to light again. Some of these are being played at 2YA on Thursday next.

The most popular air is undoubtedly "Only a Rose." It is recorded on both H.M.V. and Columbia.

The Columbia recording, a duet between Doris Vane and Harold Williams, is a splendid interpretation. Doris Vane, soprano, has an unusually wide and powerful voice, which records perfectly. Harold Williams, baritone, has many recordings to his credit, and this is surely an expression of his popularity. His rich voice blends well with that of Doris Vane. Unfortunately this is the only record that they have made together. On the reverse is the rousing "Song of the Vagabonds," in which Williams leads a strong chorus. It is a good recording that will be widely liked. Columbia 01270 (Electrical).

THE swinging air of the "Song of the Vagabonds" has very fittingly been adapted to a fox trot, and is recorded on Columbia 01270 by the Piccadilly Revels Band. Recorded in a public hall, the music brings the true rhythm of the dance hall. There is plenty of bass, yet the saxophones are strong, and the air loses little through its adaptation to dance time. It makes a capital fox trot, and is something away from the usual of this type of music. The rhythm is particularly well marked. On the reverse "Only a Rose" has been set to dance time. The recording is strong and full of life.

SELECTIONS from the "Vagabond King" are electrically recorded on Columbia 02707 by Percival Mackey's Band. There is plenty of colour in this

## Are Your Hands Tied by a Lack of Training?

Are you bound down to a routine job because you have never learned to do any one thing well?

Don't be a slave to circumstance all your life. Give yourself the chance you've always wanted.

Right at home, in spare time, no matter where you live, the I.C.S. will come to you. Don't let another priceless hour of spare time go to waste. Get in touch with this GREAT SCHOOL.

**The International Correspondence Schools (N.Z.) Ltd.**

1822 WAKEFIELD ST., WELLINGTON

# With GRAMOPHONE and RADIO

## Music of the Week

BY "B NATURAL"

band's rendition, and the excerpts are at "forte," when they die away to given a lively touch in dance time. assume a simple melody. (5) Doge's Piano solos in jazz time are played by March opens with a deep rhythmic air Mackey himself. The recording is unusual, for this type of music is usually left to the jazz band, yet this is a full offset by the passages of relative quiet.

A concert by the

## Wellington Philharmonic Orchestra

conducted by Mr. John Bishop.

will be relayed from the Wellington Town Hall on Saturday, June 21, commencing at 8 p.m.

## Programme

Overture, "A Midsummer Night's Dream."

Mendelssohn

"Symphony No. 6" (Pathétique) .. Tschaikowsky  
Aria, "Ah Perfido" (Miss Alma Greig, soprano).

Beethoven

"Piano Concerto in A Minor" (Soloist, Mr. Ernest Jenner, L.R.A.M.) .. Greig

"Prelude, Act 3," from "Lohengrin" .... Wagner  
"Gopak" .. Moussorgsky

orchestra with jazz instruments. Ballet music, "Nocturne," "Only a Rose," "Huguette," and "Love for Sale," "Song of the Vagabonds," "Some Day," are introduced. "Only a Rose" and the "Vagabond Song" are played solo piano in addition to the orchestral rendering.

### The Merchant of Venice Suite.

A POPULAR priced recording of an orchestra that has rapidly established itself is H.M.V. C.1731-2. John Barbirolli, conducting his chamber orchestra, has recorded the exquisite suite from the Merchant of Venice (Rosse). (1) The prelude is different from the usual conception of prelude, for it is bright and interesting, yet it preserves its character. (2) Intermezzo "Portia" is a finely-poised air mainly on the violins and cellos. Comparatively quiet it is in contrast to the Oriental March (3) that goes with a swing from the first bar. The strings support the winds which lead throughout and the music of the trombone imparts the brisk march time characteristic of its title. (4) Prelude No. 2 opens with the strings playing soft and low, and as they descend with the clarinet peculiar wailing results. But the air builds up till all instruments

C755 selections from "Chu Chin Chow," that gorgeous musical comedy that was seen here some years ago. The many selections are typical of the comedy, are well chosen, and well rendered. The selections conclude with the well-known march "I'll Sing and Dance."

### Tod und Verklarung.

THIS is one of the most powerful, sympathetic poems composed by Richard Strauss. A dying man, alone with but his thoughts, is a topic with a deep human interest, and this is translated into music by Strauss. The man cherishes the memories of the past, and as these pass before him he weakens and death claims him. The soul leaves the body to join the universe, and the transfiguration commences. Recorded on H.M.V. D.1525-7 by the London Symphony Orchestra, conducted by Albert Coates, the interpretation is indeed realistic.

The dying man is introduced by the low, soft notes of the full orchestra, and as he reflects over his life the violins in sweeping strains carry through the episodes that have built a career. The flute on a background of plucked strings and swelling bass tells the thoughts of this lone man. Then the death translated by a queer agitation of all instruments. The spirit is ready for the transfiguration. It commences vigorously and the whole orchestra takes up the theme, which is broken by brilliant passages on the strings backed by the basses. This leads to a climax followed by a period of quiet in which the violin and the flute in turn are heard in solo. Successions of vigorous passages dominated by the strings conveys the atmosphere of brilliance and light that one associates with a transfiguration. One passage is worthy of special notice. There is a period of quiet when on the announcement of the bass there is an outburst from the whole orchestra. It must be one of the most brilliant passages recorded. Bass and treble swell into a mighty climax, when again the upper strings disappear and the bass continues. Another climax occurs in the last record, and it is in these passages that the genius of the master Strauss makes itself fully apparent. The music dies away and the spirit has passed into the spirit world.

On the reverse of the last record is "Overture in D Minor," by Handel, arranged by Elgar. This is another brilliant orchestral recording, but the sentiment is different. It is brightly written, admirably rendered, and perfectly recorded. It needs an electrical reproducer to give full effect.

This march is well known, but this is one of the better versions.

### Chu Chin Chow.

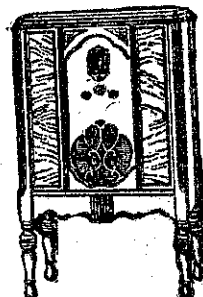
IT is a long time since we saw light opera—the talkies seem to have completely accounted for them, but the recordings of these will freshen up our memories of them. The Mayfair Orchestra has recorded for H.M.V. on

## Come in and hear this STEINITE RADIO!

This beautiful Steinite Model All-Electric Radio Receiver, as illustrated, completely outclasses anything in the lower price market. It is a Receiver of new power and new beauty of tone, with the latest type Screen-grid Valves, in a full-sized highboy cabinet with hand-rubbed finish. Come in and let us give you a free demonstration. Remember! We arrange Easy Terms!

**G. G. MacQuarrie Ltd.**

Radio Specialists,  
120 WILLIS STREET.



# Adventures of an Announcer

## Round the World with Mr. Owen Pritchard

### By "CALL UP"



HERE can be few more interesting people associated with broadcasting in New Zealand than Mr. Owen Pritchard, programme organiser at station 1YA, and certainly none with a more varied and interesting history.

Born not so very far from the present 1YA station and educated in Auckland, he began to earn his daily bread in that city, but his life was cast to take a more interesting and exciting course than any humdrum job could ever supply. He was destined for the stage, and when the "Belle Crome Bellringers" came to New Zealand twenty-five years ago he joined them, this being his first professional engagement.

After touring New Zealand for two years with this company he doubled with Alf. "Redhead" Wilson, of Mor-

ris and Wilson, who were at that time Australian top-line acrobats. He was associated with Wilson for a long time in an act entitled "The Merry Ostlers," touring New Zealand and Australia. From there they went to South Africa, where they played all through the Union before sailing for England. They showed at most of the London city and suburban theatres and a good portion of the provincial centres before going to Scotland and Ireland. They then returned to London and dissolved partnership.

STRIKING out on his own, Pritchard wrote direct to Sir Oswald Stoll, the London theatrical magnate, and through his manager was instructed to appear at an audition at the old Middlesex Theatre, Drury Lane. Pritchard was surprised to find that there were so many other artists wanting

engagements at the same time that the auditions lasted two whole days. However, he was fortunate enough to be chosen from this big batch and was given a two weeks' engagement at the Middlesex, other engagements following in and around London which kept him booked up for nine months.

Pritchard then met and joined forces with Harry Carr, pianist for Hope Charteris, the Queensland soprano, who had taken the lead vacated by Florence Smithson in "The Arcadians." They sailed from Tilbury early in 1915 and opened at Cape Town, subsequently touring the Union for six months. The partnership was then split and Pritchard signed a nine months' contract with "The Scarlet Troubadours" and again toured the Union.

ON completion of this, his third theatrical tour of South Africa, he sailed for New Zealand to join up with the N.Z.E.F. On his discharge after two years' war service, at Christmas, 1919, he was asked by a number of Aucklanders to put on a show after the style of those presented to the troops behind the lines. As he had run a concert party at Etaples this was a job right into his hands.

He collected some of his former party and under the name of the Te Koas Concert Party they drew packed audiences to the Auckland Town Hall Concert Chamber for a two weeks' season. A nine months' tour of New Zealand with this show followed.

ONE might have expected Pritchard to have settled down in Auckland then, but he sailed for America at the end of 1920. On arrival there he soon found that the professional road was a hard one to travel for anyone without a thorough knowledge of American wit and slang and a good Yankee twang! However, he achieved his measure of success and played most of the vaudeville houses in and around San Francisco.

It was in 'Frisco that he first became acquainted with broadcasting, and while in America he appeared at all the principal radio stations on the Pacific Coast. This experience has naturally stood him in good stead in his present position.

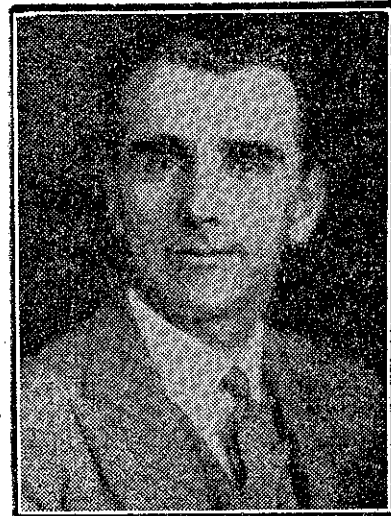
WHEN he had been in San Francisco twelve months he began to study the violin under Arthur Conradi, principal of the Institute of Music, and also took a position as cashier with the Western Union Telegraph Company. It was in this latter position that he received the greatest thrill of his life, this being no less than a daring hold-up by a gunman.

One morning he was at his place in the Western Union's office when over the counter hurdled a man with a drawn revolver.

"Throw up your hands and be quick about it," he demanded, levelling the

revolver at Pritchard. Pritchard darted out into a passage with the bandit at his heels and attempted to reach some men working behind a partition at the rear of the office, but failed. However, the gunman gave up the chase and escaped from the office, Pritchard's presence of mind having saved 1000 dollars in currency which was in an unlocked drawer a few feet away from the scene of the hold-up.

AFTER five years in 'Frisco Pritchard was engaged as orchestra leader on the s.s. Ventura, running between



MR. OWEN PRITCHARD.

—S. P. Andrew, photo.

'Frisco and Sydney. Three happy years at sea followed before he asked for his discharge in Sydney. There he was introduced to Mr. Phillip Lytton of "Cappy Ricks" fame, and was engaged by him to play principal comedian with his company on a twelve months' tour of Australia.

Pritchard then returned to Auckland to live with his mother, and not long afterward secured his present position. Even then his adventures were not at an end, for he had only been at 1YA a few months when he married an Auckland girl.

Owen Pritchard has been acrobat, singer, violinist, comedian, actor, orchestra leader, producer, and broadcaster, and has sandwiched no end of adventures in between. With such a long and varied theatrical experience and such a knowledge of the world he is admirably suited to engage radio artists and to arrange programmes. As he himself says, broadcasting is an entirely different art from the stage, but showmanship is equally essential to both. It would be hard to find a better or more experienced showman than Owen Pritchard.

## CROSLEY JEWEL BOX

*Gives You the Thrill of Radio at its Best*

The Jewelbox was the latest 1929 Crosley Model and extremely popular. Excluding screen-grid, it is probably the most efficient receiver ever produced.

Simple, compact, sturdy. Beautifully finished in White-Gold effect. No batteries. Silent operation. Plugs direct in the light socket. Costs less than 3d. an hour to run. Gives pleasure, relaxation—the true enjoyment of modern radio.

Prove for yourself by comparative demonstrations at your nearest radio dealer, or fill in the coupon for illustrated literature.

**£10 down**  
52 Weekly Payments  
of 10/-.  
Special Price for  
Cash.

# CROSLEY

*Mail Coupon  
Now!*

**Branches:**

Bank Street, Whangarei.  
Taranaki Representative:  
C. R. Ruscoe, Devon Street,  
New Plymouth.

**ABEL, SMEETON, LTD.,**

Wholesale and Retail Merchants,  
27-29 Customs St. East, Auckland.

Sir,—Please send me particulars  
of the Crosley Jewelbox and other  
superb 1930 models, including  
Screen-grid.

NAME .....

ADDRESS .....

.....R.

## Australian Radio Embargo

### Increased Manufacturing Activity

CONSIDERABLE activity is evident among the large Australian radio manufacturing firms as a result of the Federal Government's embargo on imported receivers. The Electricity Meter Manufacturing Co. (Emmco) has decided, in addition to the manufacture of components, to market complete receivers which will be available shortly. Stromberg-Carlson, whose products are Australian-manufactured, have secured new premises, and extensive production is planned. Airzone, Ltd., has ample room to grow, and at present the factory is capable of turning out sets and parts to the value of half a million sterling a year.

Amalgamated Wireless, Ltd., Australasia, whose name is a household word in Australian wireless and whose receiver, "the Radiola," is known throughout Australia, has acquired large works at Ashfield, near Sydney, and is prepared to cater for Australia's needs for every conceivable type of component or set. In addition, Messrs. Phillips, Ltd., are engaged on the project of establishing an Australian factory.

With this imposing array of Australian manufacturers and many others who are embarking on an extensive campaign of Australian-made goods, the listeners' varied demands for all types of receivers and components will unquestionably be adequately met. Moreover, the radio industry should be instrumental in absorbing many more Australian craftsmen.

## Prediction by Marconi

### A Refuted Statement

MARCHESE MARCONI refutes certain statements attributed to him concerning his recent feat in switching on the lights of the Sydney Electrical Exhibition from his yacht in the Mediterranean.

The remarks referred to state that the experiment "points the way to a future day when there will be no electric wires and all currents of electric power will be transmitted directly through the air." Such a statement was not made by him and is obviously incorrect.

### A Standing Order

AN Irishman, an Englishman, a Welshman, a Jew, and a Scotsman agreed to give a mutual friend a television apparatus in parts—one this and the other that. The Englishman stood a few gadgets and the Welshman the batteries; the Irishman stood the woodwork; the Scotsman stood six feet three, and the Jew stood in silent admiration.

# The Gentle Art of Courtesy

## "Static" from the South

A PURSUIT that is especially interesting to enthusiastic radio listeners is the collection of a good log of stations received. The practice is fairly general with listeners interested in this angle to write distant stations reporting their reception of same, and securing in return a card acknowledging reception. Through this means many amateurs paper the walls of their

appearing in the 'Radio Record' stating that — B stations have not been answering DX reports sent to them. You say "that we never reply and that you have sent three reports." How can we reply if you send your reports to the wrong address?

"You say 'that you are a regular listener.' You can't be, as you don't listen to the announcements of the ad-

"Yet you seem to think that we should provide a large staff of clerks to answer your reports by the next mail. And you can believe us when we say that answering listeners reports is no small matter. We often receive 100 reports by one mail, and at present we have at least 2000 reports for April and May unanswered; yours—the only one we have received from you—is right at the bottom of the heap. You can figure out when you will get it—but you will get it O.K. when we come to it.

"You say 'It takes time and a little patience.' Well, what about us, don't we take more time and patience in the transmission than you do in reception? Leaving out the matter of building the station or auxiliary equipment, and it was all built in our own shops, it takes us more time to go to a gramophone shop and select a programme than it does for twenty of our listeners to tune in and then write us a report.

"In any case, your letter of the 12th inst. is not a report. You say 'The transmission is all that one could desire at all times.' Why, you don't even say if you use a crystal set or what! Did the transmission fade? No. Or anything else? No. But just like the usual small boy report: 'Dear sirs,—I heard your station last night; the programme was good. SEND ME A CARD.'

"Figure this out. Go to a printing shop and get a price for 10,000 station cards, of the usual postcard type—and our new ones are fully illustrated folders—then add up the postage bill and the time of the clerk who opens the reports, reads them, classifies them, files them and answers them, always later but never, NEVER. Then listen to some more good programmes from us, and compare the modulation, etc., with the YA stations who receive your 30/—, and then—write us another letter and let us know whether you receive any enjoyment from the "B" stations, not forgetting that the "B" stations don't cost you any 30/—, but are free, gratis and all for nothing.

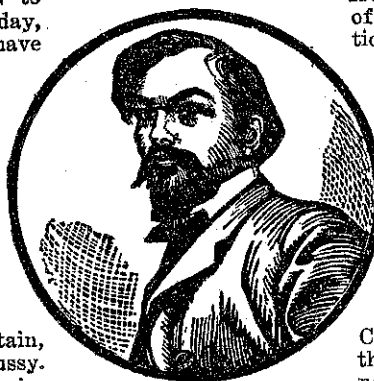
"Our primary object is to provide a first-class supplementary service to that of the local YA stations, and we can guarantee anyone who lives in our high class service area, 30 miles radius, and who has any good set, better music by radio than he can receive from a high class electric gramophone. No static, no power leaks or any other noises, but good clean music all the time."

AFTER condemning YA service and praising B station transmission over long hours, the writer said: "Everybody is satisfied—except the (Concluded on page 12.)

## PICTORIAL MUSIC

LISTENERS-IN to 4YA on Friday, June 27, will have the pleasure of hearing Mr. Max Scherek, a very accomplished pianist, playing Debussy's fascinating composition "The Submerged Cathedral."

Very many listeners, it is certain, now enjoy Debussy. To some, he was introduced recently as one of the "New Friends in Music," to others, he has long been a welcome friend whose fresh and piquant observations come



Claude Debussy

from a mind full of happy inspiration.

There could not be a better example of his power of using the pianoforte to suggest a picture and evoke a mood than the piece based on that Breton legend about the Cathedral of Ys, that was buried beneath the sea. On a calm day, the peasants used to declare, the tolling of the bells and the chanting of a phantom congregation could be heard, faint and sweet, from the depths.

radio dens with cards representing radio "scalps."

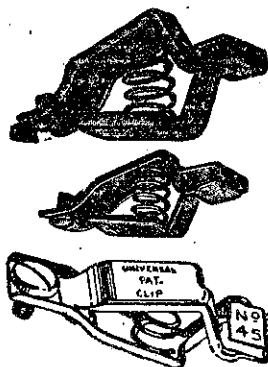
From the listener's point of view this is an entertaining little hobby, but that there is another angle has been forcibly brought to our notice by correspondence made available by a Wellington listener.

It seems that this Wellington enthusiast had for some time logged in one of the southern B stations, and several times forwarded reports in the hope of securing a card. No reply being forthcoming, he at length wrote specifically but courteously asking for one. This request, combined with complaints from other listeners which have been given, apparently roused the southern station, with the result that a quite extraordinary letter was received, followed later by another of the same calibre.

In publishing some excerpts from this letter the "Radio Record" desires to say that the mental atmosphere revealed is not credited as being general with the proprietors of B class stations. Many of those stations are ably and courteously conducted, and in return for the personal advertisement received are rendering a service to their special communities.

The southern letter to the Wellington writer began as follows: "For some time past various letters have been ap-

dress of the station! Your letter states that you deserve an answer if you write—we quite agree with you, and you will get one. But have you ever stopped to think for one second? We have £1000 invested in the most modern station in Australia or New Zealand. It cost at least 15/- per hour to run the station, and last year we broadcast 1580 hours: we provide first-class programmes for you listeners, and we are not in receipt of any support from either the Government nor anyone else, and, further, we are not allowed by law to earn any income with our stations.



**BATTERY CLIPS**  
MAKE SURE CONNECTIONS  
Are Specially Plated **PRICES**  
to Resist Acid from  
**SAVE TIME** 4d upwards

**A. E. Strange**  
IMPORTER OF RADIO GOODS  
404 Worcester St. Christchurch



## Radio de Luxe A Useful Switch

**L**ISTENERS who are inclined to fall asleep and leave the radio turned on may now obtain an electric time switch for the receiver. This turns off the power automatically at any time for which it is set.

For those who enjoy reading and listening to the radio after retiring an additional socket for attachment to a reading lamp is provided, the switch operating both radio and light.

The device may also be attached to hall lights, window-display illuminations, and signs that are to be switched off at a certain time.

## Static!

(Concluded from previous page.)

Jokers who don't get reports answered the next day—nuff said! . . . If you are the joker who writes the letters to the 'Radio Record,' please write to them again and tell them that you thought that the "B" stations received about £20,000 a year, for providing radio programmes and answering reports, but that you are very sorry about the matter, as you made a bad mistake. Yours till you hear from us again. You'll get a card sooner or later, but most likely later, but some time."

**T**O the foregoing epistle the Wellington correspondent replied, still requesting the favour of a card. This was responded to by another letter, the envelope of which was addressed "Card-hunter, etc." This letter read as follows: "We are in receipt of your effusion of the 22nd inst., for which we thank you. Evidently you are under the impression that we took the trouble to give you a special reply to your letter of the 12th inst. because we were Mars."

"We again state that no previous correspondence from you has ever been received at this station. . . . You state that you didn't ask for the service. Well, we don't ask you to listen either. There are plenty of people here who ask for the "B" station's services often enough. Hi! Hi! Hi! Hi! We are thinking of putting on some studio programmes in the near future, and we want a professional humorist. We will consider an application from you, and most likely give your application preference."

This letter is certainly not typical of station courtesy, but we publish it as a sample of a type of response which is fortunately rare.

# Children's Sessions

## From 1YA.

**TUESDAY, JUNE 24**—Once again Uncle Dave will entertain the Radio Family with interesting stories, and Cousin Shirley will sing. The Radio Postman will distribute presents.

**WEDNESDAY**—Here's Uncle Tom, cheery as ever, sending out cheer-germs, while cousins will provide musical numbers and recitations.

**THURSDAY**—Good news this evening, for the Girl Citizens will contribute choruses and songs, while Peter Pan will be present with the usual store of stories and jokes.

**FRIDAY**—The Happy Hour to be spent with Nod and Aunt Jean, the Richmond Road School assisting with jolly choruses and part songs.

**SATURDAY**—Who do you think is appearing this evening? Why, the Mount Eden Boys' Brass Band that Uncle Tom has so often told you about, so don't forget to listen-in and hear their stirring marches. There will also be stories and birthday greetings from Cinderella.

**SUNDAY, JUNE 29**—Children's Song Service, conducted by Uncle Leo, assisted by Beresford Street Sunday School.

## From 2YA.

**MONDAY, JUNE 23**—Uncle Jeff and Puzzle Time to-night! The programme is being given by the Juvenile pupils of Helen Gardner, when you will hear Cousin Eunice singing "Fairies," "Canterbury Bells," and "Bluebells" with her chorus of children's voices. There will also be Old Nursery Rhymes and musical monologues.

**TUESDAY**—Gertrude Johnston will be here to-night with her pupils. There will be 'cello and violin solos and pianoforte items. Uncle Jim has an exciting story to tell.

**THURSDAY**—Uncle George has a very special programme to-night for Cousin Eva has helped arrange it. There will be a little playette, and Cousins Edith, Betty, Ann, and Edward will also take part.

**FRIDAY**—Big Brother Jack is with us again—and Cousin Bob with his mouth organ is coming, too. There will be songs, recitations, pianoforte items. The Story Book Lady will also be here.

**SATURDAY**—The Children's 2YA Chorus have arranged to come with Uncle Toby to-night, and there will also be some little pupils

of Miss Rose Carte. Uncle Toby will play his one string fiddle and mouth organ.

**SUNDAY, JUNE 29**—The Aro Street Mission Children's Choir will be here to-night with Uncle George conducting the service.

## From 3YA.

**MONDAY, JUNE 23**—Scatterjoy meets you all at the microphone at 5 p.m., and with her are the Merry Maids who sing, play and entertain with bright songs and music.

**WEDNESDAY**—Uncle John, with Cousins Molly and Gwyneth Laver, and Noel Cape-Williamson, will keep happy and bright for the Bedtime Hour.

**THURSDAY**—Ladybird and Uncle Frank have a nice little play to present this evening, and some chippy songs and stories, too.

**FRIDAY**—Off go "Peterkin" and the boys on one of their adventures—and if you listen quietly you will hear all about the fun and excitement they have.

**SATURDAY**—Uncle Charlie tells tales of the great old music masters, and plays and sings some songs for you. Aunt Pat will help this hour along too.

**SUNDAY**—The Children's Song Service is, in the hands of Adjutant Goffin, of the Salvation Army, and the music and hymns will be provided by the Young People's Brigade.

## Her Last Birthday

### Radio Celebrations

**ONE** evening recently a unique broadcast was carried out from the Caversham Benevolent Home, Dunedin. The occasion was the celebration of the 100th anniversary of the birthday of one of the inmates, Mrs. Riddock. She was the recipient of a birthday cake with 100 candles on it, and the whole of the Children's Session, conducted by Big Brother Bill, took place in the presence of all the old ladies in the home. They spent a delightful hour and requested that more radio performances of that type should take place there.

Mr. D. Wrathall, as Uncle Pete, was an exceptionally popular entertainer. He had to sing some of the same songs five times, the old ladies enjoyed him so much. All the radio uncles and aunts of 4YA were present and they made small presents, apart from the birthday cake, to Mrs. Riddock.

But, immensely successful as was the party, it was followed by sadness, for a few days later Mrs. Riddock died. She had had a cold at the time of the party, and Big Brother Bill had sought medical advice as to whether the celebrations were likely to do any harm. He was assured on that score and so the party was held. Next day Mrs. Riddock developed bronchitis, and as her powers of resistance were very low she passed away.

## Our Mailbag

### 2YA's Transmission.

**SEVERAL** correspondents have written complaining of 2YA's transmission. As in most instances the arguments are merely reiterative there can be nothing gained by publishing them.

### Football Matches.

"CRYSTAL" in fair round handwriting suggests that the radio Broadcasting Company should ignore the Wellington Rugby Union and its local matches, and broadcast relays of the British matches. He is sure that, "if the consequences were an unfavourable attitude on the part of the Rugby Union, public approval would be bestowed upon the Radio Broadcasting Company." It is also requested that the question of repeating "Carmen" and "Rigoletto" should be considered, "without encroaching on the time allotted to our jazz friends, to tenth-rate composers, and sometimes ditto artists and bands." He cannot understand how some object to first-class recorded music in a country where first-class artists are not, exactly speaking, superfluous.

### "Good-night."

**WE** have heard much recently about cheerful "Good-mornings," and this fact suggests that attention might be given to a more cheerful and sane good-night from 2YA. The popular announcer of 2YA has a brand all his own. At first it was no doubt considered an original way of closing down the station, but now constant repetition renders it very painful and jarring. There must be many listeners who, like myself, now rush to turn off their sets before the final adieu is given. I am informed by two Australian friends that the 2YA good-night is considered, over there, particularly silly, and one can imagine the many uncomplimentary remarks made by listeners both far and near. Please, Mr. Announcer, do cut the "go-oo-oo-oo" business out. One word more. Did my ears deceive me last Saturday night, when the announcer was describing the route of the run of a harrier club? Did he really say that it passed by the ladies' prison?—"Kelburn."

### Why This Thusness?

**I** AM not one of those who cavil at either the pronunciation or the superlatively elongated vowelled announcements of the announcer of 2YA. I quite realise that the English language contains many words that might occasionally tangle even a very well-educated man, and when to the duties of an announcer is added a working acquaintance with Maori, Italian and French, the task is such as to command my sympathy.

I write, however, to call attention to the one little incident which, to my mind, marks an undue affectation when plain, blunt language would have been preferred. In describing a recent harrier run round the environs of Wellington, the announcer of 2YA had occasion to refer to Point Halswell and the buildings built thereon for a certain purpose. To my astonishment I learned that this was the "Ladies' Prison!" I am sure the ladies there, many of whom I understand listen-in, must have felt flattered.—"Matilda."

## The BEST is the Cheapest

Do not think it costs a lot of money to get the BEST results from your Radio.

### The FARRAND INDUCTOR DYNAMIC SPEAKER

will enable your set to give you that PURE NATURAL TONE you have desired, and the price is exceptionally reasonable.

Sole Agents **L. M. SILVER & CO. LTD.,** Tory St., Wellington



A WELLINGTON beginner has expressed his disappointment to "Switch" at not being able to receive 1YA, Auckland, throughout each afternoon. He lives in the inner area of the city, and he cannot understand why 3YA, Christchurch, is so loud any time of the day, while 1YA is available only late in the afternoon. Firstly, 3YA is only half the distance that 1YA is from Wellington and transmission from the Christchurch station travels over the sea for 94 per cent. of the distance to Wellington. On the other hand, 1YA's transmission travels across land all the way, and because of the highlands, forests, and mineral deposits encountered, a considerable amount of power is lost in absorption.

STATION 3LO, Melbourne, is now inflicting listeners every Tuesday evening with an instalment of a "yellow" drama, in serial form, entitled "The Jazz Spider." Melbourne is the Boston, or cultural centre, of Australia, and one can easily visualise the reception of a radio drama which follows the machinations of a gang of "dope" smugglers. Plays of this elevating type invading homes where there are boys of an impressionable age must prove a strong rival to the much condemned "Deadwood Dick" stories universally proscribed by parents and school teachers.

IN direct contrast to some of the nonsense broadcast by 3LO, Melbourne, was a recent lecture from a station on "What we should do to protect our eyes," by an accredited authority. The eye is a most precious organ—the most treasured of all—and yet the average man or woman knows practically nothing of its care. "Switch" highly commends such a radio lecture.

RECENTLY Mr. H. P. Brown, Government head of the Commonwealth National Broadcasting Service, and Mr. Stuart F. Doyle, chairman of directors of the Australian Broadcasting Company, took part by radio telephone in the annual conference at Lausanne, Switzerland, of the Union Internationale de Radiodiffusion, which controls international wavelengths and other phases of international broadcasting. Mr. Brown spoke from his suburban home in Melbourne, and Mr. Doyle was in his home at Sydney. A lengthy conversation took place, and several broadcasting notabilities conversed with the two Australians.

THE writer is informed that a New Zealander's invention respecting loudspeakers, which some people believed was going to make a fortune for them, has failed to make good. It was taken abroad, but its inventor was unable to impress the "trade" or anyone else sufficiently to take it up.

A BEGINNER came to "Switch" the other day with the complaint that on the shorter wavelengths where the "B" stations abound reception is seriously interfered with by all sorts of noises from electrical leakages. These noises, he stated, are scarcely audible

above 300 metres. When a listener is located within the precincts of a city in any part of the world he is certain to pick up these noises on the shorter wavelengths of the broadcast band. In some areas they are much more pronounced than in others.

LISTENERS in various suburbs of Wellington claim that their own areas are the worst for howling valves. Kilbirnie's claim for championship honours are now keenly disputed by Hataitai. In the latter suburb one gentleman appears to have adopted the plan of permitting his valve to howl continuously for five minutes on one station until he has driven all other

that the majority of listeners in New Zealand now are not interested in radio technical matters, and in this respect the "Radio Guide" exhibits a due regard for this large section. Every broadcast station likely to be heard in this country is listed, with full particulars as to its location, power, and wave-length. The "trouble-tracking schedule" is invaluable to all listeners.

THERE is something radically wrong with the gramophone equipment at one of the minor broadcast stations not very far from Wellington. The records do not run at a uniform speed, and the most distressing result is the sudden change of pitch. Surely the operator must notice these vagaries.

"SWITCH" has procured undeniable evidence that two of the Japanese stations, JOHK, Sandai, and JOAK, Tokio, are sometimes linked together by either land-lines or by air. The other night he checked up these stations and found gramophone items were being transmitted simultaneously by them. This, then, would account for the prolonged argument in the N.Z. Press, some time ago, as to whether JOHK was JOAK. As a matter of fact

both sides were deceived. Sometimes the announcer at JOAK would be heard giving his call-sign through JOHK, as the stations were linked together.

THE Melbourne Wholesale Radio Association has drawn up a set of rules governing "service." The hope is expressed by the association that both wholesale and retail houses will fall into line on what has been one of the "trade's" greatest problems.

SO Dr. Einstein, the famous scientist, is extending his investigations to embrace electro-magnetic phenomena. This has an important bearing on broadcasting, and ere long some new and startling theories may be propounded by the eminent investigator.

STATION 2FC, Sydney, has a peculiar practice in making "calls" to grown-ups as well as children during the kiddies' evening session. The juveniles should not have their session intruded upon in this way if the sessions are really "children's sessions."

THE "Radio Record's" Spelling Bee, to be staged early in August, promises to attract widespread interest. The idea made a big "hit" in America recently and was mentioned in the Press Association cables. A good idea in the "Radio Record's" Spelling Bee is the provision for seven different sections, which should create interesting rivalry.

BROADCAST station 3UZ, Melbourne, is stated to be the highest station in that city. The actual height is not given. 2YA, Wellington, is the highest station in New Zealand, being perched on a hill nearly 600ft. in height, overlooking the metropolis and the harbour.

## Reception Table for Australian Stations

FOR the guidance of those who wish to check their reception of the Australian stations, "Switch" prepares weekly a table showing the average relative strengths with which he has obtained reception at 11.30 p.m. during the past week:—

2FC, Sydney .....	10
2BL, Sydney .....	9
4QG, Brisbane .....	8
3AR, Melbourne .....	7
3LO, Melbourne .....	6½
2GB, Sydney .....	5
2UE, Sydney .....	4
7ZL, Hobart .....	3½
3CZ, Melbourne .....	3½
3DB, Melbourne .....	2½
5CL, Adelaide .....	2
7ZL, Hobart .....	2
2KY, Sydney .....	1½

The above figures are the points assessed, with 10 as the maximum.

howlers away. This scheme is apt to bring a prosecution down upon the inventor. Let him beware.

A FEW weeks ago a radio telephone service, which was inaugurated between Sydney and London, received considerable notice in the Press. The Sydney short-wave station, 2ME, which carries on the telephone service from Australia, has now been allotted new commercial call letters, VLK, and the British station is now known as GBP.

BROADCAST listeners will find much to interest and assist them in the "N.Z. Radio Guide and Call Book" of 1930, recently issued. It is a safe bet

## The Joy of Winter!

BIG REDUCTIONS in FARES for special winter excursions to New Zealand's peerless winter resorts—

THE CHATEAU (Tongariro National Park).

THE HERMITAGE (Mount Cook).

Franz Josef and Fox Glaciers (Westland).

Days of exhilarating snow sports outdoors.  
Nights of cosy comfort within.

Full particulars from any Railway Station or City Booking Office, and offices of the Mount Cook Tourist Co.

# Feature Peeps at Future Programmes

## SUNDAY

### At 1YA.

THE evening's Divine service will be relayed from the Auckland Baptist Tabernacle, the preacher being the Rev. Joseph Kemp. At approximately 8.30 p.m., from the Town Hall, the concert to be given by the Auckland Municipal Band under the conductorship of Mr. Christopher Smith will be relayed.

### Sunday in Wellington.

THERE will be a relay of the evening service at St. Paul's Pro-Cathedral, Wellington. The preacher will be Canon Percival James, and the choir-master and organist Mr. Robert Parker. A relay of the band recital of the Port Nicholson Silver Band from the Grand Opera House will follow.

### From 3YA.

THE service in St. Paul's Presbyterian Church by the Rev. W. Bower Black will be on the air. Afterwards there will be a relay from the Civic Theatre of the concert to be given by the Professional Musicians' Society.

### Broadcast from 4YA.

THE service in the Dunedin Central Mission Methodist Church will be broadcast, the preacher being the Rev. G. B. Hinton. Then will follow the relay of a concert to be given by the St. Kilda Band, under Mr. James Dixon, in the Central Mission Hall.

## MONDAY

### Auckland Notes.

FROM 11.30 a.m. 1YA will broadcast the results of the Auckland Trotting Club's winter meeting.

## A RADIO PLAY

### 2YA Features.

MR. Victor Lloyd's Company will give a studio presentation of a radio play written by Mr. Lloyd.

The play, which is a thriller in the real sense of the word, was given from this station about 12 months ago and was such an undoubted success, that it was thought a repetition would be welcomed. The cast is a strong one, and an enjoyable and "thrilling" evening can be looked forward to by all listeners.

The 2YA Orchestra under Signor A. P. Truda will play suitable incidental music. The vocalist on the supporting musical programme will be Mr. Frank Titterton, tenor.

### Items for Christchurch.

THE New Brighton Municipal Band, which always provides a very bright programme, will play for 3YA.



Mr. Dan Foley, the popular Wellington tenor, who sang from 2YA last week.

There will also be selections by the Broadcasting Trio. The vocalists will be Mrs. Stephen Parr (mezzo-soprano) and Mr. Wm. Ellis (bass), while there will be songs at the piano by the Rose and Thistle Duo.

### The Programme at 4YA.

THERE will be the usual W.E.A. Talk at 7.40. The vocal portion of the evening's concert will be given by the Majors—Miss Freda Elmes, Miss D. Allan, Mr. W. Harrison and Mr. L. M. Cachemaille. The items will include a number of very fine quartets. The solos will be: "Romanza e Scena" (from "Cavalleria Rusticana"), "The Evening Boat Song," "Mignonne," "Here is April," "Vorrei" and "Down Here." Miss Malona Juriss will give three elocutionary items. The instrumental portion of the programme will be supplied by the Studio Quintet under Mr. F. Drake, and will be of a very attractive nature. Selections from "Chu Chin Chow" will be played, also a suite by Dvorak. There will be fifteen minutes of Sullivan's melodies and Strauss' "Artist's Life."

## TUESDAY

### Auckland Features.

AT 7.40 p.m. Mr. E. S. Kohn will give another of his series of talks, this time on precious stones.

Three very fine vocalists appear tonight. One, Miss H. Veda Nelson, is a new radio artist, possessing a splendid contralto voice. Her numbers will include "Voci Di Donna o d'Angelo," "Redice Abisso Affrettati," and the wonderful song, "The Enchantress" (by Hatton).

Mr. Lambert Harvey tenor, was very well known in the North of England before coming to New Zealand, and in Auckland his services are in great demand. He will sing "The English Rose," "With Fancy Eye," and "Celeste Aida" (from "Aida" by Verdi).

As a former member of the famous Westminster Glee Singers, Mr. A. Gibbons-Taylor earned a very high reputation for his artistic bass-baritone solos, and it is fortunate for listeners that he has settled in Auckland. Among his items will be heard, "The Vulcan's Song" and "Within These Sacred Bowers" (from "The Magic Flute").

Under Mr. Eric Waters, the 1YA Orchestral Octet will render some splendid operatic selections, including the cornet solo, "Roberto tu Che Adoro," to be played by Mr. W. Shepley. Miss Margot Toner has had a wide experience as a solo pianist, both in England and New Zealand, and she will make a very welcome appearance this evening in two solos.

### The Programme from 2YA.

AT 3.40 Miss Flora Cormack will speak on "The Trend of Fashions for 1930." At 7.40 there will be a talk for "The Man on the Land" by a representative of the Department of Agriculture.

A FEATURE of to-night's programme at 2YA will be the song recitals by Mr. Barend Harris, of Sydney. This artist has chosen numbers of a popular nature in keeping with the type of 2YA



Miss Gwladys Edwardes, a talented Australian vocalist, now resident in New Zealand, will sing from 2YA on Friday next.

programmes on Tuesday evenings. The supporting artists on this programme will be Miss Phyllis Martin (soprano), and Miss Zena Jupp (elocutioniste). Mr. Norman C. Izett will feature a bracket of novelty piano solos, and Mr. W. E. Elliott will be heard in popular song numbers. The Salon Orchestra under Mr. M. T. Dixon will play as an overture "The Fair Maid of Perth," a musical comedy selection, Godowsky's "Alt Wien," Elgar's "Carissima," and a selection from "The Arcadians." Mr. H. Langtry will play as a clarinet solo with orchestral accompaniment, Le Thiere's "Alicante."

### Silent Day at 3YA.

## Scottish Music

### 4YA Features.

A TALK on "Tourist Resorts" will be broadcast by Mr. R. W. Marshall.

A programme of Scottish music will be given by the Dunedin Highland Pipe Band under Pipe Major McMillan. An excellent vocal programme will support. Miss E. Cooper will sing songs at the piano. Contralto and baritone solos will be sung by Miss May Somerville and Mr. R. Martindale respectively. Miss M. E. Juriss will recite, and Mr. B. Brown will dispense Scottish humour of the Lauder type.

## WEDNESDAY

## Novelty Numbers

### Items From 1YA.

THERE will be a relay of the Community Singing from the Auckland Town Hall from 12.30 p.m. to 1.30 p.m. At 7.40 p.m. Madame Mabel Milne will give a further talk on Health and Diet.

A very interesting programme has been arranged for the evening session. Ingall's Hawaiian Orchestra, a very popular combination, under the direction of Mr. Barry Ingall, will contribute.

Two new artists to 1YA also appear on the programme, Messrs. Alf. Healy and Fred Briggs, of the Civic Theatre Orchestra. These two gentlemen will give novelty items on the saxophone and piano. The many patrons of the Civic Theatre have shown much appreciation of the

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splendid performances of these two artists, and now listeners will have the opportunity of hearing them.

Miss Hilda Sansfield and Mr. Walter Brough will be heard in solos and duets. Miss Moira Clouston, a well-known elocutioniste, is another outstanding performer, and she will be heard in musical monologues and humorous numbers. This will probably be Miss Clouston's final appearance at 1YA, as she is shortly leaving for Wellington. Mr. Cyril Towsey, the station pianist, will play "Polonaise in C Sharp Minor," by Chopin.

Not the least interesting item on this programme will be a further talk or Bridge by Mr. T. Boyce. His former talks have been greatly appreciated by aspiring bridge players, and this talk will further help them in their desire to obtain more knowledge of this fascinating game. The programme will conclude with another interesting lecture-recital on the latest gramophone recordings. These lecture-recitals are greatly appreciated by listeners.

#### Silent Day at 2YA.

#### Operatic Numbers at 3YA.

MISS MARY O'CONNOR (soprano), Miss Marian Woodhouse (contralto), Mr. S. Andrews (tenor) and Mr. R. Allison will be the vocalists. Miss Naare Hooper, who has not been heard for some considerable time, will give two elocutionary numbers. A fine instrumental programme will be provided by the Studio Octet under Mr. Harold

#### Novelty Numbers

##### Of Merit From Dunedin.

"SOAP-MAKING in the Home" is the subject of this afternoon's talk by the Home Science Extension Department of Otago University. At 7.15 Mr. W. K. Dallas, of the Department of Agriculture, will speak on "Winter Care of Orchards." Both talks have been arranged for by the 4YA Primary Productions Committee.

4YA will introduce to listeners a boy soprano, Douglas D. Alderton. Other vocalists will be Miss Sheila McIndoe (soprano), Miss Betty Hamilton (contralto) and Mr. Dudley Poole (baritone). Miss Leonore Mackenzie will recite. The popular Novelty Synopators will supply the instrumental portion of the musical programme.



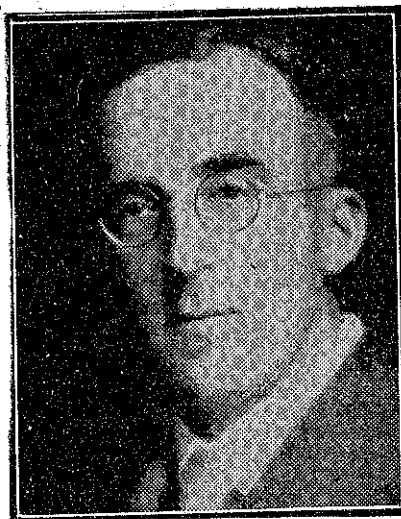
Mr. Walter Brough, of 1YA, who will be heard from 1YA on Wednesday next.

—Schmidt Studios, photo.

## THURSDAY

From Auckland.

AT 3.15 from 1YA, 2YA and 3YA there will be a Home Science talk (prepared by the Home Science Ex-



Founder pianist-conductor of the Auckland Studio trio and the Orchestral Octet, Mr. Eric Waters, 1YA station pianist, is frequently heard by listeners.

—S. P. Andrew, photo.

tension Department of the University of Otago) on "Eggs—their value and use in the diet."

A few weeks ago the Mati Trio made their first appearance at 1YA in instrumental numbers. Many very favourable messages of appreciation were received on the work of this talented combination of Rarotongan, who will be heard again this evening in a number of the latest popular selections.

The Celeste Trio (comprising Miss Winnifred Hill, Miss Gwenda Weir, and Mrs. Daisy Basham) will be heard in vocal trios. This combination has also been very much appreciated in the past.

Humour will be supplied by Mr. T. T. Garland, and the Orchestral Octet, under the direction of Mr. Eric Waters, has selected some splendid items for their entertainment, including the suite "Chelsea China," by Besley, one of England's leading composers, and selections from the light opera, "The Count of Luxembourg."

Included in the orchestra is Mr. Roy Brinsden, who has toured Australia and New Zealand with "Pat Hanna's Diggers." He is one of the most versatile instrumentalists in Auckland, playing not only the drums, but also the banjo, saxophone and trumpet. On this evening he is playing two saxophone solos. The programme will conclude with dance music until 11 o'clock.

#### Wellington Notes.

MR. L. D. WEBSTER will give the fifth of his series of "Musical Talks," when he will discuss "The Coming Musical Festival."

The Wellington Commercial Travelers' and Warehousemen's Association Orchestra and Concert Party will give another of their interesting and entertaining programmes. The orchestra, under the baton of Mr. J. F. Woodward, will play the overture "Pique Dame," the march "The Middy," a selection from "The Vagabond King,"

"The Blue Danube Waltz," "The Entry of the Boyards," "In a Chinese Temple Garden," and "The Quarter Deck" march, by Alford. The Misses Vera Boesley and Eileen Roach will play two pianoforte duets and the other supporting artists will include Mrs. Amy Woodward, Misses Pauline Shotlander, Nita Frame, Nancy Phillips and Messrs. Arthur Haley, L. J. Bryan and W. E. Elliott.

#### New Zealand Programme from 3YA.

The programme will consist entirely of items by New Zealand composers.

#### Silent Day at 4YA.

## FRIDAY

At 1YA.

MR. J. F. MONTAGUE will continue his talks on the pronunciation of Maori words, with special reference to place-names.

The vocalists for the concert will be Miss Kay Christie (possessor of a very beautiful contralto voice), Madame Ora Melvin and Norman Day. These latter will be heard in solos and duets.

The recent radio performance of Mr. Arthur Webb, soprano cornetist, was hailed with delight by numbers of listeners in Auckland, and this evening he will appear again, playing four solos. Mr. Webb was for four years champion cornetist in New Zealand.

The Studio Trio will play some delightful selections and Mr. Eric Waters will be heard in two pianoforte solos. Mr. Waters holds a very high position as a musician in the Dominion, not only as a pianist and conductor but as a composer, and his compositions have been heard often from 1YA.

#### Talks on Rugby

##### Wellington Features.

A FEATURE of interest to Rugby enthusiasts throughout the country will be the series of talks to be given at 2YA by the well-known Rugby authority, Mr. Dan McKenzie. The first of these talks will be given to-night at 7.40.

The concert programme will be of an operatic and miscellaneous nature, the vocalists being Mr. Barend Harris (who will feature several solos from opera, with explanatory remarks beforehand), Miss Gwladys Edwardes and Mr. Charles P. Edwards. Miss Elaine Newton, a visiting pianist from Wanganui, will also be heard in several items. The elocutionary portion of the programme will be in the capable hands of Mr. Albert Davey. The Orchestral under Signor A. P. Truda will play items in keeping with the operatic nature of the programme.

#### Concert Items from 3YA.

A POPULAR concert programme, followed by a session of dance music, will be broadcast by 3YA. Mrs. L. Barriball, one of Napier's leading sopranos, now resident in Christchurch, will make her radio debut. She will sing two of Easthope Martin's descriptive songs and also the well-known "Hymns of the Old Church Choir." There will be tenor solos by Mr. Douglas Suckling and bass songs by Mr. W. J. Richards. Mr. Geo. Titchener will dispense humour in his items, "The Agitator" and "My Motor Bike." A programme of instrumental music will be given by the Studio Octet under Mr. H. Beck.

#### Dunedin Notes.

THE vocalists will be Miss Rae Stubbs (soprano), Miss Irene Hornblow (contralto), Mr. A. Walmsley (tenor), and Mr. A. W. Alloo (baritone). Two sketches will be acted by the Winkel-Lampen Radio Players—"The Stranger" and "Stung." The instrumental portion of the programme will be provided by the Studio Trio, in trio and solo numbers. As a 'cello solo Mr. P. J. Palmer will play Popper's "Gavotte." Mr. Max Scherek, pianist, will play Debussy's "The Submerged Cathedral."

## SATURDAY

Relay from 1YA.

THE concert to be given in the Town Hall by the Municipal Band will be on the air.

From 2YA.

#### For Old Folks

THE W.E.A. lecturette this evening will be given by Mr. J. R. Elliott, B.A., Lecturer in Classics at Victoria College, his subject being "The Roman Occupation in Britain."



A popular elocutionist, who is returning to 3YA after a long absence—Miss Naare Hooper.

—Steffano Webb.

The Wellington Optimists' Club with the assistance of the Salon Orchestra, will give a programme of optimism which on this occasion will be for the "Old Folks at Home." The programme will commence at 8 p.m. and finish at 10 p.m. in order that the younger folk may have their dance music programme at the scheduled time. The last "Optimist" programme was a great success and no effort is being spared to make this one even better than the last.

#### Items from Christchurch.

The Happiness Boys will be heard in a vaudeville turn, "Bits and Pieces." Miss Lily Kinsella, a talented young entertainer, will recite, to piano accompaniment, "Behind the Veil" and "Celebrity." Popular tunes will be played by Miss Helen Macdonald, pianiste.

#### From 4YA.

The station will carry out a relay of the performance of "The Runaway Girl," to be given in the Dunedin Town Hall.

# Full Programmes for Next

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

## Sunday, June 22

### 1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, JUNE 22.

- 3.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.  
 4.30: Close down.  
 6.0 : Children's session, conducted by Upcle Leo.  
 6.55: Relay of evening church service from the Baptist Tabernacle. Preacher, Rev. Joseph Kemp. Organist, Mr. Arthur E. Wilson.  
 8.30: (approx.) Relay of concert from the Town Hall by the Auckland Municipal Band, under the conductorship of Mr. Christopher Smith.  
 9.30: God Save the King.

### 2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JUNE 22.

- 3.0 : Chimes. Afternoon session.  
 4.30: Close down.  
 7.0 : Relay of evening service of St. Paul's Pro-Cathedral. Preacher, Canon Percival James. Organist and Choirmaster, Mr. Robert Parker.  
 8.15: (approx.) Relay of Port Nicholson Silver Band's Recital from the Grand Opera House (Conductor, Mr. J. J. Drew).

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JUNE 22.

- 3.0 : Afternoon session—Gramophone recital.  
 4.30: Close down.  
 5.30: Children's song service by children of Presbyterian Church Sunday Schools, conducted by Rev. L. McMaster, assisted by some scholars from the Presbyterian Sunday School.  
 6.15: Intermission—From studio of musical recordings.  
 6.30: Relay of evening service from St. Paul's Presbyterian Church, Cashel Street. Preacher, Rev. W. Bower Black. Organist, Mr. Norman Williams. Choir Conductor, Mr. H. Blakeley.  
 7.45: (approx.) Studio programme.  
 Negro spirituals—Paul Robeson, "Weepin' Mary" (Burleigh), "I Want to be Ready" (H.M.V. B2897).  
 Piano and orchestra—Arthur de Greef and Royal Albert Hall Orchestra, "Hungarian Fantasia" (Liszt) (H.M.V. D1306/7).  
 Negro spiritual—Paul Robeson, "My Lord, What a Mornin'," "Scandalize My Name" (Burleigh) (H.M.V. 2897 and 2771).  
 Band—Band of H.M. Coldstream Guards, "War March of the Priests."  
 8.15: (approx.) Relay of special presentation instrumental programme by the Professional Musicians' Society, from the Civic Theatre, Manchester Street.  
 God Save the King.

### 4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JUNE 22.

- 3.0 : Chimes. 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 evening service from Central Mission Methodist Church. Preacher, Rev. G. B. Hinton.  
 8.5 : Relay of band concert by St. Kilda Band, under the conductorship of Mr. Jas. Dixon, from Central Mission Hall, Octagon, Dunedin.  
 9.30: God Save the King.

## Monday, June 23

### 1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, JUNE 23.

- 11.30: (Approx.)—Relay of results of the Auckland Trotting Club's Winter Meeting from near Alexandra Park, interspersed with gramophone items.  
 5.0 : (Approx.)—Close down.

### 2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, JUNE 23.

- 3.0 : Chimes.  
 3.15: Lecturette—Representative, Messrs. Kirkcaldie and Stains, Ltd., "Home Crafts."  
 3.30 and 4.30: Sporting summary.  
 4.40: Selected studio items.  
 4.55: Close down.  
 5.0 : Children's session, conducted by Uncle Jeff.

### 6.0 : Dinner music session, "Columbia" hour.

Suite—Ketelbey's Concert Orchestra, "In a Fairy Realm" (Ketelbey).  
 1—The Moonlit Glade; 2—The Queen Fairy Dances; 3—Gnomes March (02694/5).

- 6.12: Tacet.  
 6.15: Columbia Symphony Orchestra, "March of the Bojaren" (Halvorsen).  
 'Cello solo—Gaspar Cassado, "Melodie Arabe" (Glazounov).  
 New Queen's Hall Light Orchestra, "Wood Nymphs" (Coates).  
 6.26: Tacet.

6.30: New Queen's Hall Light Orchestra, "Summer Days Suite" (Coates).  
 1—In a Country Lane; 2—On the Edge of the Lake; 3—At the dance (02590/1).

- 6.42: Tacet.  
 6.45: J. H. Squire's Celeste Octet, "Memories of Mendelssohn" (arr. Sear).  
 Columbia Symphony Orchestra, "Bridal Procession" (Grieg) (02622).  
 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.

Overture—2YA Orchestra (Conductor, Signor A. P. Truda), "The Bartered Bride" (Smetana).

8.9 : Tenor—Frank Titterton, "Ave Maria" (Schubert) (Col. 02710).  
 8.13: Instrumental—J. H. Squire's Celeste Octet, "Memories of Mendelssohn" (arr. Sear) (Col. 02838).

8.20: Tenor—Frank Titterton, "By the Sea" (Schubert) (Col. 02710).

8.24: Instrumental—2YA Orchestra, "In the Silence of the Night."

8.30: "The House of Disappearance." A mystery play by Victor S. Lloyd (suggested by the novel of the same name by J. Jefferson Fargeon).

Principal Characters in their order of Appearance.

Geary—a Labourer ..... H. A. Painter  
 Inspector of Police ..... E. R. Render  
 Angela Vernon ..... Elsie Lloyd  
 Peter Armstrong ..... Eric A. Clark  
 Sir Julius Hughes ..... Theo. E. Lloyd  
 Miss Ayrton ..... Marjorie Murray  
 Dr. Glade ..... Victor S. Lloyd

Play produced by Victor S. Lloyd.

Scene I—A Lonely Country Road in England.

Scene II—In the Grounds at Greystones.

Entr'acte—2YA Orchestra, "Mystery Waltz" (Rolf).

Scene III—Angela Vernon's Apartments, half-an-hour later.

Scene IV—At the Front Door—Greystones.

Entr'acte—2YA Orchestra, "Melodie Pathetique" (Sarbo).

Scene V—Continuation of Scene III.

Scene VI—Inside the Safe.

Scene VII—A Room in Dr. Glade's House.

Instrumental—2YA Orchestra, "Invitation to the Waltz" (Weber).  
 God Save the King.

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, JUNE 23.

- 3.0 : Afternoon session—Gramophone recital.  
 4.25: Sports results.  
 4.30: Close down.  
 5.0 : Children's hour, "Scatterjoy."  
 Band—Royal Italian Band, "Marcia Reale" (Gabetti) (01182).  
 Instrumental—Court Symphony Orchestra, "In Venice" (Sellars).  
 Kinema organ—Stanley MacDonald, "Was it a Dream?" (Coslow).  
 Band—Royal Italian Band, "Garibaldi's Hymn" (Olivieri) (01182).

6.12: Tacet.  
 6.15: Instrumental—Ketelbey's Concert Orchestra, "Sanctuary of the Heart."  
 'Cello—W. H. Squire, "Melody in F" (Popper) (04178).

6.25: Tacet.  
 6.30: Instrumental—W. H. Squire's Celeste Octet, "Mignon." 1—Introduction and Romance; 2—Polonaise (Thomas) (02748).  
 'Cello—W. H. Squire, "Silver Threads Among the Gold."

6.42: Tacet.  
 6.45: Band—H.M. Grenadier Guards, "Turkish Patrol" (Michaelis) (4111).  
 Kinema organ—Stanley MacDonald, "Nicolette" (Batten).  
 Waltz—Jacques Jacobs Ensemble, "Weiner Blut" (Strauss) (02556).  
 Idylle—H.M. Grenadier Guards Band, "Smithy in the Woods."

6.58: Tacet.

7.0 : News session.

8.0 : Chimes.

Band programme by the New Brighton Municipal Band, assisted by 3YA Artists.

March—Band, "Gill Bridge" (Ord Hume).

One-step—Band, "Raggin' Thru the Rye" (Adams).

8.8 : Bass—Mr. William Ellis, "The Pirate Bold" (Slater).

8.12: Violin and organ—Elsie Southgate, "I Hear You Calling Me."

8.15: Songs at the piano—The Rose and Thistle Duo, (a) "South Sea Rose" (Gilbert); (b) "When You're Counting the Stars Alone" (Russell).



# Week-all Stations-to June 29

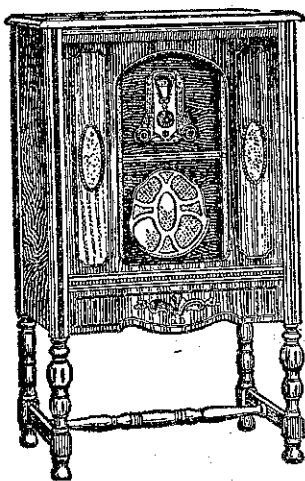
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- 8.26: Hawaiian—Kane's Hawaiians, (a) "Drowsy Waters" (Kilau); (b) "Hilo March" (Berger) (Zono. 2922).  
 8.32: Waltz—Band, "Can't You Hear Me Say I Love You?" (Brawn).  
 8.37: Mezzo-soprano—Mrs. Stephen Parr, (a) "Reveille" (Marjorie Broughton); (b) "Remorse" (from Six Odd Song) (Marjorie Broughton).  
 8.42: Instrumental trio—Christchurch Broadcasting Trio, (a) "Serenade" (Les Millions D'Arlequin) (Drigo); (b) "Ye Banks and Braes" (Scottish); (c) "Waltz" (from "The Sleeping Beauty").  
 8.52: Male trio—The Melody Three, "Pals, Just Pals" (Dreyer-Ruby).  
 8.56: Foxtrots—The Band, (a) "My Inspiration is You" (Nicholls); (b) "When You are Counting the Stars" (Russell).  
 9.2: Weather report and station notices.  
 9.4: Novelty—Savoy Orpheans, "London and Daventry Calling."  
 9.12: Bass—Mr. William Ellis, (a) "Life is But a Song" (Petrie); (b) "Less Than the Dust" (Woodford-Finden).  
 9.18: Foxtrot—Band, "Sing Song Girl" (Rimmer).  
 Fantasia—Band, "The Piper's Wedding" (Thyhe).  
 9.23: Songs at the piano—The Rose and Thistle Duo, (a) "The Album of My Dreams" (Davis); (b) "Just Can't be Bothered With Me."  
 9.30: Violin and organ—Elsie Southgate, "Rose in the Bud" (Forster).  
 9.33: Selection—Band, "Souvenir of the Opera" (Rimmer).  
 9.38: Instrumental—Christchurch Broadcasting Trio, (a) "Intermezzo" (Malthais); (b) "Swedish Folk Song" (Svendson); (c) "Serenata."  
 9.49: Mezzo-soprano—Mrs. Stephen Parr, "The Cuckoo Clock."  
 9.53: Waltz song—Band, "Sleepy Valley" (Hanley).  
 March—Band, "Flying Squad" (Ord Hume).  
 God Save the King.

## 4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, JUNE 23.

- 3.0: Chimes. Selected gramophone items.  
 4.25: Sporting results.  
 4.30: Close down.  
 5.0: Chimes. Children's hour, conducted by Big Brother Bill.  
 6.0: Dinner music, "Columbia" hour.  
 Orchestra—Orchestre Symphonique de Paris, "L'Arlesienne Suite" (Bizet). 1—Prelude; 2—Entr'acte—Pastoral, L'Etang de Vaccaries; 3—Choeurs—Suivant la Pastorale (Col. 01324/5).  
 6.12: Tacet.  
 6.15: Selection—Columbia Symphony Orchestra, "Faust" (Gounod) (02708).  
 Violin—Toscha Seidel, "Chanson Arabe" (Rimsky-Korsakov) (09505).  
 6.27: Tacet.  
 6.30: Orchestral—Orchestre Symphonique de Paris, "L'Arlesienne." 1—La Cuisine de Castelet; 2—Minuetto; 3—Le Carillon; 4—Adagietto (Bizet) (01326/7).  
 6.42: Tacet.  
 6.45: Orchestral—Orchestre Symphonique de Paris, "Farandole" (L'Arlesienne) (Bizet) (01328).  
 Band—Band Garde Republicaine de France, "Carmen" Entr'acte.  
 6.56: Tacet.  
 7.0: News session.  
 7.40: Talk—Under auspices of W.E.A.  
 8.0: Chimes.  
 Overture—Basle Symphony Orchestra, "Der Freischutz" (Weber).  
 8.12: Quartet—The Majors, (a) "From Oberon to Fairyland" (Stevens); (b) "O Hush Thee, My Baby" (Sullivan).  
 8.20: Selection—Instrumental Quintet, under direction of Mr. F. V. Drake, "Chu-Chin-Chow" (Norton).  
 8.30: Recital—Miss Maiona E. Juriss, (a) "Llano Estacado" (Miller); (b) "The Bald-headed Man" (Herbert).  
 8.36: Soprano—Miss Freda Elmes, "Romanza El Scene" from "Cavalleria Rusticana" (Mascagni).  
 8.41: Suite—Instrumental Quintet, "Suite, Op. 98." 1—Moderate; 2—Moderate Vivace; 3—Allegretto; 4—Andante; 5—Allegro (Dvorak).  
 8.56: Bass—Mr. L. M. Cachemaille, "Mignonne, Here is April" (Del Reigo).  
 9.0: Weather report.  
 9.2: Piano—Mrs. C. Drake, "Polonaise" (Chopin).  
 9.7: Quartet—The Majors, (a) "Land of Hope and Glory" (Elgar); (b) "In This Hour of Softened Splendour" (Pinsuti).  
 9.13: Orchestral—Basle Symphony Orchestra, "Rosamunde Entr'acte."  
 9.17: Contralto—Miss D. Allan, "The Evening Boat Song" (Schubert).  
 9.21: Selection—Instrumental Quintette, "Sullivan's Melodies" (Sullivan).  
 9.28: Recital—Miss Maiona E. Juris, "Susan goes Shopping" (Herbert).  
 9.32: Violin—Emanuel Bez, "Hungarian Dance, No. 1" (Brahms).  
 9.36: Quartet—The Majors, "On the Banks of Allan Water" (Cornwall).  
 9.39: Valse di Concert—Instrumental Quintet, "Artist's Life" (Strauss).  
 9.46: Tenor—Mr. W. Harrison, (a) "Vorrei" (Tosti); (b) "Down Here."  
 9.53: Quartet—The Majors, "Good Night, Good Night, Beloved" (Pinsuti).  
 9.56: Band—Band of H.M. Grenadier Guards, "Nell Gwynn Dances."  
 10.0: God Save the King.

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WELLINGTON

## Tuesday, June 24

### 1YA, AUCKLAND (900 KILOCYCLES)—TUESDAY, JUNE 24.

- 3.0: Afternoon session—Selected studio items, including literary selection by the Announcer.  
 4.30: Close down.  
 5.0: Children's session, conducted by "Uncle Dave."  
 6.0: Dinner session—"Parlophone" Hour.  
 Selection—Edith Lorand Orchestra, "La Boheme" (Puccini) (E10558).  
 Waltz—Edith Lorand Orchestra, "La Serenade" (Metra) (E10522).  
 Violin—Tosky Spiwakowsky, "Turkish March" (Beethoven) (A2561).  
 6.12: Tacet.  
 6.15: Waltz—Edith Lorand Orchestra, "Venetian Barcarolle" (Leoncavallo).  
 Trio—Dajos Bela Trio, (a) "Traumerei" (Schumann); (b) "Chant D'Automne" (Tchaikowsky) (E10573).  
 Cello—Gregor Piatigorsky, "The Swan" (Saint-Saens) (A2628).  
 6.28: Tacet.  
 6.30: Edith Lorand's Orchestra, (a) "Minuet" (Boccherini); (b) "Toreador and Andalouse" (Rubinstein) (A4108).  
 Waltzes—Royal Music Makers, (a) "Kiss Me Again" (Herbert); (b) "Ah, Sweet Mystery of Life" (Herbert) (A2722).  
 6.44: Tacet.  
 6.45: Suite—Paris Opera Comique Orchestra, "Ballet Egyptien" (Luigini).  
 6.57: Tacet.  
 7.0: News and market reports.  
 7.40: Talk—Mr. E. S. Kohn, "Precious Stones."



- 8.0 : Chimes.  
Overture—Mengelberg's Concertgebouw Orchestra, "Oberon" (Weber).  
8.13: Bass-baritone—Mr. A. Gibbons Taylor, "Se Il Rigor 'La Ebra.'"   
8.17: Overture—1YA Orchestral Octet, under the direction of Mr. Eric Waters, "Alceste" (Gluck).  
8.24: Contralto—Miss H. Veda Nelson, (a) "Voci di Donna o D'Angelo, 'La Gioconda'" (Ponchielli); (b) "Redice Abisso Affrettati, 'Un Ballo in Maschera'" (Verdi).  
8.34: Piano—Miss Margot St. L. Toner, "Montanesa" (de Falla).  
8.39: Orchestral—1YA Orchestral Octet, Suite: (1) Cavalcade, (2) Pierrette, (3) Harlequin, (4) Columbine, (5) Frolic (Ring).  
8.49: Tenor—Mr. Lambert Harvey, (a) "The English Rose, 'Merrie England'" (German); (b) "With Fance Eye, 'Manon'" (Massenet).  
8.56: Cornet solo with orchestral accompaniment—Mr. W. Shepley, "Roberto Tu Che Adoro, 'Robert le Diable'" (Meyerbeer).  
9.4 : Evening weather forecast and announcements.  
9.6 : Violin—Yelli D'Aranyi, "Chaconne" (Charlier) (Col. 02898).  
9.14: Bass-baritone—Mr. A. Gibbons Taylor, (a) "The Vulcan's Song—Philemon and Baucis" (Gounod); (b) "Within These Sacred Bowers—Magic Flute" (Mozart).  
9.21: Selection—1YA Orchestral Octet, "Country Girl" (Monckton).  
9.31: Contralto—Miss H. Veda Nelson, "The Enchantress" (Hatton).  
9.35: Piano—Miss Margot St. L. Toner, "Andaluza" (de Falla).  
9.45: Tenor—Mr. Lambert Harvey, "Celeste Aida, 'Aida'" (Verdi).  
9.45: 'Cello—W. H. Squire, "Berceuse de Jocelyn" (Godard) (Col. 04179).  
9.49: Orchestral—1YA Orchestral Octet, (a) "Dance of the Bayaderes" (Rubinstein); (b) "Wedding Procession."  
10.0 : God Save the King.

## 2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, JUNE 24.

- 3.0 : Chimes. Selected Studio Items.  
3.40: Lecturette—Miss Flora Cormack, "The Trend of Fashions for 1930."  
3.30 and 4.30: Sporting Results.  
4.55: Close down.  
5.0 : Children's Session, conducted by Uncle Jim.  
6.0 : Dinner Music Session, "H.M.V." Hour.  
Instrumental—Royal Opera Orchestra, "Praeludium" (Jarnfeldt).  
'Cello—Pablo Casals, "Melody in F" (Rubinstein) (DA833).  
Waltz—Royal Opera Orchestra, "Euglin Onegin" (Tschalkowsky).  
Balalaika Orchestra, "Shining Moon" (Russian Folk Song) (EA48).  
6.12: Tacet.  
6.15: Suite—Paul Whiteman's Orchestra, "Suite of Serenades" (Herbert). 1. Spanish; 2. Chinese; 3. Cuban; 4. Oriental (EB26).  
Waltz—Philadelphia Symphony Orchestra, "Tales from the Vienna Woods" (Strauss) (ED2).  
6.27: Tacet.  
6.30: Instrumental—Royal Opera Orchestra, "Berceuse" (Jarnfeldt).  
'Cello—Pablo Casals, "Traumerel" (Schumann) (DA833).  
Male Quartet—The Rounders, "Chlo-E" (Kahn) (EA402).  
Instrumental—San Francisco Symphony Orchestra, (a) "Serenade" (Volkman); (b) "Flight of the Bumble Bee" (Rimsky-Korsakov).  
6.42: Tacet.  
6.45: Instrumental—Chicago Symphony Orchestra, (a) "Valse Triste" (Sibelius); (b) "Funeral March of a Marionette" (Gounod) (ED5).  
March—San Francisco Symphony Orchestra, "Marche Militaire" (Schubert) (ED9).  
6.57: Tacet.  
7.0 : News Session, Market Reports and Sports Results.  
7.40: Lecturette—Representative Department of Agriculture, "For the Man on the Land."  
8.0 : Chimes.  
Overture—2YA Salon Orchestra, (Conductor Mr. M. T. Dixon), "Fairly Maid of Perth" (Waddell).  
8.9 : A song recital by Mr. Barend Harris of Sydney, (a) "On the Road to Mandalay"; (b) "When Summer is Gone"; (c) "A Chazan Anf Shabbos" (A Centor for the Sabbath—A Hebrew Folk Song of Eastern Europe) (Speaks).  
8.19: Clarinet solo with orchestra, Mr. H. Langtry and the Salon Orchestra, "Alicante" (Fleure).  
8.26: Soprano—Miss Phyllis Martin, "Lovely Spring" (Coeman).  
8.30: Novelty Piano—Mr. Norman C. Izett, (a) "Warblings at Eve" (Richards); (b) "La Harp Eolienne" (Smith).  
8.37: Humour—Miss Zena Jupp, "There Was an Old Woman Who Lived in a Shoe" (Anon.).  
8.42: Popular song—Mr. W. E. Elliott, "Romance" (Leslie and Donaldson).  
8.46: Instrumental—Salon Orchestra, (a) "Berceuse" (Schumann); (b) "Carissima" (Elgar).  
8.54: Soprano—Miss Phyllis Martin, "My Toreador" (Rubens).  
8.58: Weather Forecast and Announcements.  
9.0 : A further group of numbers by Mr. Barend Harris of Sydney, (a) "Just a Memory" (Henderson); (b) "When the Sergeant Major's on Parade" (Longstaffe).  
9.10: Instrumental—Salon Orchestra, "Request Item."  
9.18: Elocution—Miss Zena Jupp, "Somebody and Someone" (Coningsby Clarke).  
9.23: Popular song—Mr. W. E. Elliott, "With You" (Berlin).  
9.27: Selection—Salon Orchestra, "The Arcadians" (Monckton).  
9.35: Dance programme, "Brunswick."  
Foxtrot—Tom Gerun and His Orchestra, "The New Step" (Titworth).  
Foxtrot—Jack Denny and His Mount Royal Hotel Orchestra, "Blondy" (Rubila) (4594).

- Foxtrot—Abe Lyman and His California Orchestra, "Lucky Me Loveable You" (Yellen-Ager) (4609).  
Foxtrot—Jack Denny and His Royal Hotel Orchestra, "Hang on to Me" (Klages-Greer) (4594).  
Foxtrot—Abe Lyman and His California Orchestra, "Love Ain't Nothing but the Blues" (Goodwin-Alter) (4609).  
9.45: Duet—Lester McFarland and Robert Gardner, "Go and Leave Me If You Want To" (trdl.) (Brunswick 293).  
Foxtrot—Slatzrandall and His Orchestra, "I'd Do Anything for You" (Friend-Pollack) (4562).  
Foxtrot—Lloyd Huntley and His Isle O' Blues Orchestra, "Head Low" (Cabizajo) (4643).  
9.54: Waltz—Carl Fenton and His Orchestra, "Rock Me to Sleep in Your Arms" (A., P. and C. De Voll) (4578).  
Foxtrot—Tom Gerun and His Orchestra, "The Web of Love" (Titworth-Cowan) (4519).  
Foxtrot—Jack Denny and His Mount Royal Hotel Orchestra, "Pretty Little You" (Ryan-Violonsky) (4551).  
Foxtrot—Mill's Hotsy Totsy Gang, "Some Fun" (Von Eps) (4498).  
Foxtrot—Jack Denny and His Mount Royal Hotel Orchestra, "Why Can't You Love That Way" (Bourne-Val-Creamer) (4551).  
10.9 : Vocal duet—Al and Pete, "At Nesting Time" (Bontsema) (4670).  
Foxtrot—Louis Kaizman and His Brunswick Orchestra, "Once Upon a Time" (Thompson-Stamper) (4546).  
Foxtrot—Jesse Stafford and His Orchestra, "Feelin' the Way I Do" (Gillespie-Cooke and Moret) (4627).  
Foxtrot—Lloyd Huntley and His Isle O'Blues Orchestra, "Same Old Moon—Same Old June" (Friend) (4643).  
Waltz—Bob Haring and His Orchestra, "All That I'm Asking is Sympathy" (Davis-Burke) (4578).  
10.24: Foxtrot—Meyer Davis Hotel Orchestra, "A Year from To-day" (Jolson-MacDonald-Dreyer) (Z4561).  
Foxtrot—Slatzrandall and His Orchestra, "Blame it on the Moon" (Baxter) (4562).  
Foxtrot—Meyer Davis' Hotel Astor Orchestra, "He's So Unusual" (Sheman-Lewis-Silver) (4561).  
10.33: Vocal—Bob Miller and His Hinky Dinkers, "Golden Wings" (Miller).  
Foxtrot—Jesse Stafford and His Palace Hotel Orchestra, "I Don't Want Your Kisses" (Fisher-Broones) (4548).  
Foxtrot—Tom Clines and His Music, "Time Will Tell" (Gilbert-Baer).  
Foxtrot—Meyer Davis' Hotel Orchestra, "Love" (Amor-Janis-Goulding).  
Foxtrot—Tom Clines and His Music, "Perhaps" (Quizas) (4575).  
Waltz—Jesse Stafford and His Palace Hotel Orchestra, "Until the End" (Fisher-Broones) (4548).  
10.51: Foxtrot—Jimmie Joy and His Orchestra, "Harmonica Harry" (Baxter).  
Foxtrot—Jesse Stafford and His Orchestra, "Last Night Honey" (McCarthy-Monaco) (4627).  
Foxtrot—Jimmie Joy and His Orchestra, "Can't You Understand" (Osterman-Young) (4640).  
11.0 : God Save the King.

## 3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, JUNE 24.

SILENT DAY.

## 4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, JUNE 24.

- 3.0 : Chimes. Selected gramophone records.  
4.25: Sporting results.  
4.30: Close down.  
5.0 : Children's Hour, conducted by Uncle Pete.  
6.0 : Dinner session—"H.M.V." Hour:  
Overture—H.M. Coldstream Guards Band, "Poet and Peasant" (Suppe)  
Orchestral—Symphony Orchestra, "Love, the Magician" (De Falla).  
6.12: Tacet.  
6.15: March—National Military Band, "Liberty Bell" (Sousa) (Zono. 5366).  
Waltz—International Novelty Quartet, "Cuckoo" (Jonasson) (Zono.).  
Waltz—Jack Hylton's Orchestra, "Spanish Rose" (Pearson) (B5481).  
Xylophone—Sam Herman, "Al Fresco" (Zonophone EE53).  
6.27: Tacet.  
6.30: Orchestral—New Light Symphony Orchestra, "In a Clock Store" (Orth).  
March—Royal Opera Orchestra, "Marche Hongroise" (Berlioz) (C1279).  
Orchestral—Symphony Orchestra, "Spanish Dance" (De Falla).  
6.42: Tacet.  
6.45: Schottische—International Novelty Quartet, "Lena" (Mewes) (Zono.).  
Pipe organ, piano, trombone, and harp—Shilkret's Rhythm Melodists, "When You're with Somebody Else" (Gilbert) (EA336).  
Waltz—Jack Hylton's Orchestra, "The Angelus was Ringing" (B5481).  
March—National Military Band, "El Capitan" (Sousa) (5366).  
6.57: Tacet.  
7.0 : News session.  
7.40: Talk—Mr. R. W. Marshall, "Tourist Resorts."  
8.0 : Chimes. Programme of music to be rendered by Dunedin Highland Pipe Band under direction of Pipe-Major McMillan.  
Selection—The Band, (a) "Barren Rocks," (b) "Boatie Rows" (of Scottish airs), (c) "Campbells are Coming," (d) "Marquis of Huntley," (e) "Jenny Dang the Weaver" (traditional).  
8.13: Songs at the piano—Miss E. Cooper, "The Waltz" (Brunell).  
8.17: Organ—Eddie Horton, "The Adorable Outcast" (Hayes) (Parlo.).  
8.21: Recital—Miss M. E. Juriss, "Saturday Night" (Herbert).  
8.26: Baritone—Mr. R. Martindale, (a) "The Blue Dragoons" (Russell), (b) "All Thru the Night" (Welsh air).

- 8.33: Selections—The Band, (a) "My Native Highland Home," (b) "My Home," (c) "Blue Bonnets are Over the Border" (traditional).  
 8.45: Contralto—Miss Mary Somerville, "The Broom of the Cowden Knowes" (traditional).  
 8.52: Bell solo—Billy Whitlock, "The Joker" (Whitlock) (Parlo. A2503).  
 8.56: Scotch humour—Mr. B. Brown, "Piper McFarlane" (Lauder).  
 9.0: Weather report.  
 9.2: March and waltz—Band, "My Love She's but a Lassie Yet"; "Fairyland Waltz," "Athole Highlanders" (traditional).  
 9.14: Songs at piano—Miss E. Cooper, (c) "Plumstones" (Worlock), (b) "April Fool" (Gartlan).  
 9.20: Organ—Eddie Horton, "O Mi Paloma" (Merton) (Parlo. A2557).  
 9.24: Recital—Miss M. E. Juriss, "The Burglar" (Anon.).  
 9.30: Baritone—Mr. R. Martindale, "The Stockrider's Song" (James).  
 9.33: Selection—The Band, (a) "Highland Laddie," (b) "Home, Sweet Home," (c) "Braes of Tullymet," (d) "Kilt is My Delight."  
 9.45: Contralto—Miss Mary Somerville, "O for the Bloom" (Glover), (b) "Bonnie Scotland" (Moffat).  
 9.48: Bell solo—Billy Whitlock, "Lullaby Waltz" (Whitlock) (Parlo. A2503).  
 9.52: Scotch humour—Mr. B. Brown, (a) "Bella the Belle of Dunoon" (Lauder), (b) "Saturday Night" (Lauder).  
 9.57: March—The Band, (a) "Brown-Haired Maiden," (b) "Happy We've Been a' Together" (traditional).  
 10.3: God Save the King.

## Wednesday, June 25

### 1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, JUNE 25.

- 12.30: Relay of Community Singing from Auckland Town Hall.  
 1.30: Close down.  
 3.0: Afternoon session—Selected studio items, including literary selection by the Announcer.  
 4.30: Close down.  
 5.0: Children's session, conducted by "Uncle Tom."  
 6.0: Dinner session—"H.M.V." Hour:  
 Instrumental—Reg. King's Orchestra, "Garden in the Rain."  
 Instrumental—Reg. King's Orchestra, "The Song I Love" (B2903).  
 Waltz—International Concert Orchestra, "Gold and Silver" (Lehar).  
 Instrumental—Victor Olof Sextet, "Cherry Ripe" (Scott) (B2697).  
 6.12: Tacet.  
 6.15: Waltz—International Concert Orchestra, "La Spagnola" (De Chiara).  
 Orchestral—Victor Concert Orchestra, "Romance" (Tchaikowsky).  
 Violin—Isolde Menges, "Salut d'Amour" (Elgar) (D1813).  
 6.26: Tacet.  
 6.30: Instrumental—Piccadilly Orchestra, "Friend o' Mine" (Sanderson) (B2857) and "None but the Weary Heart" (Tchaikowsky).  
 Orchestral and grand organ—International Concert Orchestra, "My Treasure" (Becucci) (Zono. EP15).  
 Instrumental—Victor Olof Sextet, "Minuet" (Boccherini) (B2697).  
 6.42: Tacet.  
 6.45: Instrumental—Jack Hylton's Orchestra, "Melodious Memories" (Finck).  
 Waltz—International Novelty Orchestra, "Emperor" (Strauss) (EF22).  
 6.57: Tacet.  
 7.0: News and market reports.  
 7.40: Talk—Madame Mabel Milne, "Health and Diet."  
 8.0: Chimes. Hawaiian Orchestra, Ingall's Hawaiians, (a) "Isle of Paradise" (own arrangement), (b) "Hawaiian Rainbow" (Cravelle).  
 8.6: Elocution, humorous—Miss Moira Clouston, (a) "Man's Superiority" (Anglo-Quillen); (b) "Too Late, Too Late" (Anon.).  
 8.13: Vocal duet—Mr. Walter Brough and Miss Hilda Stansfield, "Garden of Happiness" (Wood).  
 8.17: Hawaiian Orchestra, Ingall's Hawaiians, (a) "Latest Hit" (Ferara), (b) "Palakiko Blues" (Ferara).  
 8.24: Contralto—Miss Hilda Stansfield, (a) "Down Here the Lilacs Fade" (Sanderson); (b) "Sewing Song" (Maude).  
 8.31: Piano—Mr. Cyril Towsey, "Polonaise in C Sharp Minor" (Chopin).  
 8.38: Baritone—Mr. Walter Brough, (a) "Harlequin" (Sanderson); (b) "For the Green" (Lohr).  
 8.45: Talk—Mr. T. Boyce, "Bridge."  
 9.0: Evening weather forecast and announcements.  
 9.2: Hawaiian orchestra—Ingall's Hawaiians, (a) "Hilo Waltz" (Ingall), (b) "Coral Sands of My Hawaii" (Heagney).  
 9.8: Elocution—Miss Moira Clouston, "The Sphinx and the Woman."  
 9.12: Novelty saxophone and piano duo, Messrs. Alf. Healy and Fred Briggs, (a) "Nola" (Arndt), (b) "Kitten on the Keys" (Confrey), (c) "Millicent" (Savella).  
 9.21: Vocal duet—Mr. Walter Brough and Miss Hilda Stansfield, "The Day is Done" (Lohr).  
 9.25: Novelty saxophone and piano duo—Messrs. Alf. Healy and Fred Briggs, (a) "At Dawning" (Cadman), (b) "Latest Hit" (Cadman).  
 9.32: Lecture-recital—A Commentator, Latest Gramophone Recordings.  
 10.2: God Save the King.

### 2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, JUNE 25.

#### SILENT DAY.

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, JUNE 25.

- 3.0: Afternoon session—Gramophone recital.  
 4.25: Sports results.  
 4.30: Close down.  
 5.0: Children's hour, "Uncle John."  
 6.0: Dinner session, "Columbia" hour.  
 Intermezzo—Milan Symphony Orchestra, "Cavalleria Rusticana."  
 Selection—Herman Finck's Orchestra, "Scherbertian" (arr. Finck).  
 6.12: Tacet.  
 6.15: Selection—Herman Finck's Orchestra, "Schubertiana" (arr. Finck).  
 Marimba Orchestra—Rio Marimba Orchestra, "Three O'Clock on the Morning" (Robledo) (02685).  
 6.27: Tacet.  
 6.30: Bayreuth Festival Orchestra, "Siegfried Prelude, Act 3" (Wagner).  
 Waltz—Eddie Thomas' Collegians, "Moments With You" (Shilkret).  
 Waltz—Eddie Thomas' Collegians, "Moonlight on the Danube" (Gay).  
 Wurlitzer organ—Stanley MacDonald, "La Rosita" (Dupont).  
 6.43: Tacet.  
 6.45: Selection—Regal Orchestra, "Pagliacci" (Leoncavallo).  
 Rio Marimba Orchestra, "My Isle of Golden Dreams" (Blaufuss).  
 6.57: Tacet.  
 7.0: News session.  
 7.30: Addington stock market reports.  
 8.0: Chimes.  
 Operatic and miscellaneous programme.  
 Overture—Halle Orchestra, "Capriccio Espagnole" (Rimsky-Korsakov).  
 8.16: Tenor—Mr. S. Andrews, "My Own, My Guiding Star" (MacFarren).  
 8.20: Soprano—Miss Mary O'Connor, (a) "The Maids of Cadiz" (Delibes); (b) "A Barque at Midnight" (Lambert).  
 8.26: Instrumental—Studio Instrumental Octet (Conductor, Mr. H. Beck), "L'Impressario Overture" (Mozart).  
 8.31: Tenor—Mr. Robert Allison, "M'Appari Tut Amor" (from "Martha").  
 8.35: Cello—W. H. Squire, "Sicilienne" (Faure) (Col. L1759).  
 8.39: Recitation—Miss Naare Hooper, "The Soliloquy of Suzette" (MS.).  
 8.43: Contralto—Miss Marian Woodhouse, (a) "Far Greater in His Lowly State" (from "Irene") (Gounod); (b) "The Lark now Leaves His Watery Nest" (Hatton).  
 8.51: Instrumental—Studio Instrumental Octet, "Dramatic Music" (Purcell).  
 9.3: Weather report and announcements.  
 9.5: Selection—Band of H.M. Grenadier Guards, "Der Meistersingers."  
 9.13: Tenor—Mr. S. Andrews, Indian songs, (a) "The City Wall" (Lohr); (b) "Starlight" (Lohr).  
 9.19: Instrumental—Studio Instrumental Octet, (a) "True Love" (Brahms); (b) "Norwegian Folk Song" (arr. Carse).  
 9.23: Soprano—Miss Mary O'Connor, "Adieu Forets" (from "Jeanne D'Arc").  
 9.28: Tenor—Mr. Robert Allison, (a) "The Star" (Rogers); (b) "Lolita".  
 9.34: Instrumental—Studio Instrumental Octet, "Scenes Pittoresques" (Massenet); (a) "March"; (b) "Air de Ballet"; (c) "Angelus."  
 9.46: Contralto—Miss Marian Woodhouse, "Faribondo Spira Il Vento."  
 9.50: Humorous recitation—Miss Naare Hooper, "On the Art of Making up One's Mind" (Jerome).  
 9.56: Instrumental—Studio Instrumental Octet, "Remembrances of Brahms" God Save the King.

### 4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, JUNE 25.

- 3.0: Chimes. Selected Gramophone records.  
 3.15: Talk—Home Science Department of Otago University, under auspices of 4YA Primary Productions Committee, "Soap-making in the Home."  
 4.30: Close down.  
 5.0: Chimes. Children's hour, conducted by Big Brother Bill.  
 6.0: Dinner session, "Brunswick" hour.  
 Orchestral—Brunswick Concert Orchestra, "Dance of the Hours."  
 Orchestral—A. and P. Gypsies, "Herbertiana" (Stone) (4287).  
 Violin—Frederic Fradkin, "Le Cygne" (Saint-Saens) (4528).  
 Orchestral—Brunswick Concert Orchestra, "Badinage" (Herbert).  
 Orchestral—A. and P. Gypsies, "The Far-Away Bells" (Furbur-Gordon).  
 6.14: Tacet.  
 6.15: Orchestral—Brunswick Concert Orchestra, "Wine, Women and Song."  
 Orchestral—Anglo-Persians, "Cossack Love Song" (Katzman) (4483).  
 Violin—Frederic Fradkin, "Nola" (Arndt) (4318).  
 Orchestral—Ray Miller and His Orchestra, "Iowa Corn Song."  
 6.28: Tacet.  
 6.30: Orchestral—A. and P. Gypsies, (a) "White Acacia"; (b) "Petite Causerie" (Stone) (4287).  
 Orchestral—Brunswick Concert Orchestra, "Thousand and One Nights."  
 Orchestral—A. and P. Gypsies, "Simple Confession" (Thome) (4442).  
 Orchestral—Ray Miller and His Orchestra, "Go You North-western."  
 6.43: Tacet.  
 6.45: Orchestral—Brunswick Concert Orchestra, "La Danseuse" (Von Blom).  
 Orchestral—Brunswick Concert Orchestra, "Hungarian Lutspiel."  
 Violin—Frederic Fradkin, "A Kiss in the Dark" (de Sylva) (4318).  
 Orchestral—Anglo-Persians, "Ragamuffin" (Greer) (4483).  
 6.58: Tacet.  
 7.0: News session.  
 7.15: Talk—W. K. Dallas, Department of Agriculture, "Winter Care of Orchards."  
 8.0: Chimes.  
 Overture—Jacque Jacobs Ensemble, "L'Estudiantina" (Waldteufel).  
 8.9: Soprano—Miss Sheila McIndoe, "Spring's A-Comin' to Town" (Carew).  
 8.12: Popular melodies—Novelty Syncopators, "In a Little Place Called Heaven" (O'Hagan); "Lucky Me, Lovable You" (Yellen).

- 8.20: Boy soprano—Master Douglas D. Alderton, (a) "Cherry Ripe" (Horn); (b) "Fly Away, Pretty Moth" (Bayly).  
 8.26: Recital—Miss Leonore Mackenzie, "Lascia" (Desprez).  
 8.31: Foxtrots—Novelty Syncopators, (a) "When Niccolo Plays the Piccolo" (Woods); (b) "You're My Silver Lining of Love" (Tobias).  
 8.39: Baritone—Mr. Dudley Poole, (a) "Invictus" (Huhn); (b) "Look Down Dear Eyes" (Fisher).  
 8.45: Piano novelty—Mr. J. Moore Wilson, "Nobody's Fault but Your Own."  
 8.50: Contralto—Miss Betty Hamilton, (a) "Thoughts Have Wings" (Lehmann); (b) "Early in the Morning" (Phillips).  
 8.55: Popular melodies—Novelty Syncopators, "Cooking Breakfast for the One I Love" (Rose); "Kicking a Hole in the Sky" (Rose).  
 9.0: Weather report.  
 9.2: Soprano—Miss Sheila McIndoe, (a) "Song of the Little Folk" (Coates); (b) "Longing" (Kyerulf).  
 9.8: Waltz—Novelty Syncopators, "If You're in Love You'll Waltz" (McCarthy); "Dream Mother" (Lewis).  
 9.18: Boy soprano—Master Douglas D. Alderton, (a) "Where the Bee Sucks Honey" (Dr. Arne); (b) "When Daisies Pled" (Dr. Arne).  
 9.18: Recital—Miss Leonore Mackenzie, (a) "Mrs. Pinkerton's Bonnet"; (b) "The Lowestoft Boat" (Kipling).  
 9.23: Baritone—Mr. Dudley Poole, "The Gay Highway" (Drummond).  
 9.26: Popular melody—Novelty Syncopators, "Collegiate Sam" (Drummond).  
 9.29: Contralto—Miss Betty Hamilton, "The Fairy Tale of Ireland" (Coates).  
 9.34: Dance session, "H.M.V." hour and a-half.  
 Foxtrot—Vallee's Connecticut Yankees, "Heigh Ho! Everybody, Heigh Ho!" (Woods) (EA614).  
 Foxtrot—Shilkret's Orchestra, "Hittin' the Ceiling" (Gottler).  
 Foxtrot—Weems' Orchestra, "Good Morning, Good Evening, Good Night" (Lewis) (EA615).  
 Foxtrot—Shilkret's Orchestra, "Sing a Little Love Song" (Gottler).  
 9.42: Vocal duet—Dora Maughan and Walter Fehl, "That's Just What I Thought" (Bennett Carlton) (B3000).  
 Foxtrot—Vallee's Connecticut Yankees, "S'posin'" (Razaf) (EA608).  
 Foxtrot—Arnheim's Orchestra, "Lovable and Sweet" (Clare) (EA608).  
 Foxtrot—Olsen's Orchestra, "Out Where the Moonbeams are Born."  
 Foxtrot—Reisman's Orchestra, "When You Come to the End of the Day" (Westphal) (EA581).  
 9.57: Piano duet—Arden Ohman, "Ragamuffin" (Greer) (EE166).  
 Foxtrot—Waring's Pennsylvanians, "When My Dreams Come True."  
 Foxtrot—Reisman's Orchestra, "Gay Love" (Clarke) (EA625).  
 Foxtrot—Waring's Pennsylvanians, "My Sin" (de Sylva) (EA592).  
 10.12: Humour—Leonard Henry, "When Did the Village Blacksmith Say?"  
 Foxtrot—Shilkret's Orchestra, "Used to You" (de Sylva) (EA587).  
 Foxtrot—All Star Orchestra, "My Dream Memory" (Clare) (EA608).  
 Foxtrot—Shilkret's Orchestra, "Why Can't You?" (de Sylva) (EA587).  
 Foxtrot—The Troubadours, "My Song of the Nile" (Bryan) (EA625).  
 Waltz—The Troubadours, "My Heart is Bluer Than Your Eyes."  
 10.30: Piano duet—Victor Arden, Phil Ohman, "Dance of the Paper Dolls."  
 Foxtrot—Vallee's Connecticut Yankees, "Miss You" (Tobias) (EA614).  
 Foxtrot—Reisman's Orchestra, "Ain't Misbehavin'" (Razaf) (EA612).  
 Vallee's Connecticut Yankees, "The One in the World" (Little).  
 10.42: Foxtrot—George Olsen and His Music, "Reaching for Someone."  
 Vocal duet—Dora Maughan and Walter Fehl, "Eggs, Toast and Coffee."  
 Foxtrot—Hylton's Orchestra, "You're the Cream in My Coffee."  
 Foxtrot—Vallee's Connecticut Yankees, "Every Moon's a Honeymoon."  
 Foxtrot—Hylton's Orchestra, "To Know You is to Love You."  
 Waltz—Reisman's Orchestra, "Evangeline" (Rose) (EA615).  
 11.0: God Save the King.

## Thursday, June 26

### 1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, JUNE 26.

- 8.0: Afternoon Session—Selected Studio Items by Lewis Eady Ltd., and a literary selection by the Announcer.  
 8.15: Home Science Talk—"Eggs—Their Value and Use in the Diet," prepared by Home Science Extension Service of Otago University.  
 8.30: Further Studio Items.  
 8.40: Close down.  
 9.0: Children's Session, conducted by Peter Pan.  
 9.0: Dinner Session, "Columbia" Hour.  
 9.0: Orchestra—Finck's Orchestra, "Gaiety Echoes" (Caryll-Monckton).  
 9.0: Orchestra—Sandler's Orchestra, "Lar Lagarteranas" (Guerrero and Foulkes) (01634).  
 9.0: Violin—Lipschultz, "La Golondrina" (Sorraddell).  
 9.13: Tacet.  
 9.15: Instrumental—Squire's Celeste Octet, "Everybody's Melodies" (arrgd. J. H. Squire) (02896).  
 9.15: Organ—John Hassel, "By the Waters of Minnetonka" (Lieurance).  
 9.15: Orchestra—Sandler's Orchestra, "Raphaellito" (Guerrero and Foulkes).  
 9.28: Tacet.  
 9.30: Orchestra—Regal Kinema Orchestra, "Broadway Selection" (Gottler).  
 9.30: Violin—Lipschultz, "Estrellita" (Ludlow) (Regal G20489).  
 9.30: Orchestra—Romani and Italian Orchestra, "Old Comrades March" (Teike) (Regal G20488).  
 9.43: Tacet.  
 9.45: Orchestra—Berlin State Orchestra, "Die Fledermaus" (Strauss).  
 9.45: Orchestra—Nullo Romani's Orchestra, "Canto Al Inverno."  
 9.45: Orchestra—Russian Novelty Orchestra, "Tesoro Mio" (Bécucci).  
 9.58: Tacet.

- 7.0: News and Market Reports and Book Review.  
 8.0: Chimes.  
 Overture—1YA Orchestra Octet, under the direction of Mr. Eric Waters, "Mayday" (Wood).  
 8.8: Vocal Trio—Celeste Trio, "Estudiantina" (Lacome).  
 8.12: Novelty Trio—Mati Trio, (a) "Latest Hit"; (b) "To-night You Belong to Me" (Austin); (c) "Cradle of Love" (Gilbert).  
 8.21: Orchestra—1YA Orchestra Octet, (a) "In Old Manila" (Erl); (b) "Granny" (Akst).  
 8.29: Humour—Mr. T. T. Garland, "Some Humour" (Own Arrangement).  
 8.36: Vocal Trio—(a) "Nursery Rhymes" (Constance); (b) "The Fairies Were Tripping" (Tayler).  
 8.43: Orchestra—1YA Orchestra Octet, Suite: "Chelsea China" (Besley). 1. Curtain; 2. Minuet; 3. Pastoral; 4. Piper; 5. Soldiers.  
 8.53: Vocal Trio—Celeste Trio, (a) "Funiculi Funicula" (Denza); (b) "Good-night Farewell" (Garrett).  
 9.0: Evening forecast and announcements.  
 9.2: Instrumental Trio—Mati Trio, (a) "Latest Hit"; (b) "Kohala"; (c) "Aloha-Oe" (Kaili).  
 9.12: Saxophone solo—Mr. R. Brinsden, (a) "Only Me Knows Why" (Walden); (b) "Love Made a Gypsy Out of Me" (De Costa).  
 9.20: Humour—Mr. T. T. Garland, "A Fireside Chat" (Own Arrangement).  
 9.24: Orchestra—1YA Orchestra Octet, Selection from the Light Opera, "Count of Luxembourg" (Lehar).  
 9.34: Dance Music, "Brunswick."  
 Foxtrot—Lloyd Huntley and His Isle O'Blues Orchestra, "Moaning for You" (Goulding-Dougherty) (4703).  
 Foxtrot—Roger Wolfe Kahn and His Orchestra, "Without a Song" (Rose-Eliscu-Youmans) (4600).  
 Foxtrot—Colonial Club Orchestra, "It's You I Love" (Davis-Coots-Swanstrom) (4621).  
 Foxtrot—Lloyd Huntley and His Isle O'Blues Orchestra, "Alone in the Rain" (Goulding-Dougherty) (4703).  
 Foxtrot—Colonial Club Orchestra, "Why?" (Davis-Coots-Swanstrom).  
 9.45: Duet—Billy Murray and Walter Scanlan, "Shut the Door" (Ives-Howard-Kern) (4611).  
 Foxtrot—The A and P Gypsies, "South Sea Rose" (Gilbert-Baer).  
 Foxtrot—Roger Wolfe Kahn and His Orchestra, "Great Day" (Rose-Eliscu-Youmans) (4600).  
 Foxtrot—The A and P Gypsies, "Only the Girl" (Ruby Jerome).  
 9.57: Waltz—Hal Kemp and His Orchestra, "Romance" (Leslie-Donaldson).  
 Foxtrot—Herman Waldman and His Orchestra, "Marbles" (Canicas).  
 Foxtrot—Hal Kemp and His Orchestra, "Navy Blues" (Turk-Ahlert).  
 Foxtrot—Benny Meroff and His Orchestra, "The Talk of the Town" (Kahn-Cohn) (4709).  
 Foxtrot—Colonial Club Orchestra, "March of the Old Guard" (Mardian de la Guardia Vieja) (Grey-Stothart) (4690).  
 10.12: Vocal—Frances Williams, "Bigger and Better Than Ever" (Friend-White) (4503).  
 Foxtrot—Colonial Club Orchestra, "Sweetheart We Need Each Other" (McCarthy-Tierney) (4567).  
 Foxtrot—Herman Waldman and His Orchestra, "Waiting" (Gardner).  
 Foxtrot—Ben Bennie and His Orchestra, "What is This Thing Called Love" (Cole-Porter) (4707).  
 10.24: Waltz—Regent Club Orchestra, "You're Always in My Arms" (McCarthy-Tierney) (4567).  
 Foxtrot—Ray Miller and His Orchestra, "Funny Dear, What Love Can Do" (Bennett-Little-Straight) (4675).  
 Foxtrot—Benny Meroff and His Orchestra, "Happy Days are Here Again" (Ager-Yellen) (4709).  
 Foxtrot—Ray Miller and His Orchestra, "Finesse" (Maltin Doll).  
 10.36: Duet—Billy Murray and Walter Scanlan, "Sergeant Flagg and Sergeant Quirt" (Klein-Moll) (4611).  
 Foxtrot—Colonial Club Orchestra, "Charming" (Grey-Stothart).  
 Foxtrot—Ben Bennie and His Orchestra, "She's Such a Comfort to Me" (Furber-Parsons) (4707).  
 10.48: Waltz—Lloyd Huntley and His Isle O'Blues Orchestra, "Molly" (Goulding-Dougherty) (4704).  
 Foxtrot—Ray Miller and His Orchestra, "My Victory" (Miller-Lombardo-Stein) (4669).  
 Foxtrot—Al Goodman and His Orchestra, "Mary" (Gordon-Rich).  
 Foxtrot—Ray Miller and His Orchestra, "Blue Butterfly" (Tucker-Schuster) (4669).  
 Foxtrot—Al Goodman and His Orchestra, "Lonesome Little Doll" (Cowan-Boutelje) (4623).  
 11.0: God Save the King.

### 2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, JUNE 26.

- 8.0: Chimes. Selected studio items.  
 8.15: Home Science—"Eggs: Their value and use in the diet"—talk prepared by Home Science Extension Service, Otago University.  
 8.30 and 4.30: Sporting summary.  
 4.55: Close down.  
 5.0: Children's session, conducted by Uncle George.  
 6.0: Dinner music session—"H.M.V." Hour:  
 Selection—Kauffman's Orchestra, "The Gipsy Baron" (Strauss).  
 Waltz—La Vittoria Orchestra, "Wedding of the Winds" (Hall) (Zono).  
 6.12: Tacet.  
 6.15: Orchestra—Piccadilly Orchestra, "If Only I Had You" (Davies).  
 6.15: Orchestra—Piccadilly Orchestra, "Lilita" (Ferrete) (B2713).  
 6.15: Hawaiian—Kolomoku's Honoluluans, "Aloha Oe" (Liliuokalani).  
 6.15: Orchestra—Piccadilly Orchestra, "Charmaine" (Rapee) (B2528).

- 6.27: Tacet.  
 6.30: Selection—New Mayfair Orchestra, "This Year of Grace" (Coward).  
 Orchestral—Waring's Orchestra, "Ah! Sweet Mystery of Life" (EB37).  
 Hawaiian—Kolomoiku's Honoluluans, "Three O'Clock in the Morning".  
 6.42: Tacet.  
 6.45: Orchestral—Victor Concert Orchestra, "Minuet in G" (Paderewski).  
 Orchestral—Victor Concert Orchestra, "Amaryllis" (Thys) (EA240).  
 Orchestral—Piccadilly Orchestra, "Bird Songs at Eventide" (Coates).  
 Waltz—International Concert Orchestra, "Blue Danube" (Strauss).  
 6.57: Tacet.  
 7.0: News session, market reports and sports results.  
 7.40: Lecturette—Mr. Laurence D. Webster, the fifth of a series of talks, "The Coming Musical Festival."  
 A studio concert by the Wellington Commercial Travellers and Warehousemen's Association Orchestra and Concert Party.  
 8.0: Chimes. Overture—The Orchestra (Conductor, Mr. J. F. Woodward), "Pique Dame" (Suppe).  
 8.9: Mezzo-soprano—Miss Nancy Phillips, (a) "Until" (Sanderson), (b) "A Perfect Day" (Bond).  
 8.16: March—The Orchestra, "The Middy" (Ashford).  
 8.20: Baritone—Mr. Arthur Haley, "Come, Sing to Me" (Thompson).  
 8.24: Soprano with orchestra—Mrs. Amy Woodward, "Invitation Waltz" (Owen).  
 8.28: Pianoforte duet—Misses Vera Boesley, A.T.C.L., and Eileen Roach, "Marche Hongroise" (Kowalski).  
 8.31: Comic song—Mr. L. J. Bryan, "My Word, You Do Look Queer."  
 8.36: Selection—The Orchestra, "The Vagabond King" (Primi).  
 8.44: Tenor—Mr. W. E. Elliott, "Macushla" (MacMurrough).  
 8.48: Wurlitzer organ—"Chant Sans Paroles" (Tschaiakowsky) (B3094).  
 8.51: Contralto (with 'cello obligato by Mr. J. Dick)—Miss Nita Frame, "Serenata" (Toselli).  
 8.55: Waltz—The Orchestra, "The Blue Danube Waltz" (Strauss).  
 9.1: Weather forecast and announcements.  
 9.3: Soprano with orchestra—Mrs. Amy Woodward and the Orchestra, "My Hero" (from "The Chocolate Soldier") (Strauss).  
 9.7: Baritone—Mr. Arthur Haley, "At Dawning" (Cadman).  
 9.11: March—The Orchestra, "Entry of the Boyards" (Halvorsen).  
 9.16: Mezzo-soprano—Miss Pauline Shotlander, "Prelude—Cycle of Life" (Landon Ronald), (b) "Secrecy" (Wolf).  
 9.22: Pianoforte duet—Misses Vera Boesley and Eileen Roach, "Hungarian Dances" (Brahms).  
 9.27: Humour—Mr. L. J. Bryan, "The Street Watchman's Story" (Winter).  
 9.32: Selection—The Orchestra, "In a Chinese Temple Garden" (Ketelbey).  
 9.40: Contralto—Miss Nita Frame, "Still as the Night" (Bohm).  
 9.44: Novelty—Victoria Trio, (a) "Sorella" (Gallini), (b) "The Prince Waltz" (no composer) (H.M.V. A343).  
 9.52: Tenor—Mr. W. E. Elliott, "When You Come to the End of the Day."  
 9.56: March—The Orchestra, "The Quarter-Deck" (Alford).  
 10.0: God Save the King.

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, JUNE 26.

- 3.0: Afternoon session—Gramophone recital.  
 3.15: Home Science—"Eggs—Their Value and Use in the Diet." Talk prepared by the Home Science Extension Service, Otago University.  
 4.25: Sports results.  
 4.30: Close down.  
 5.0: Children's hour, "Ladybird and Uncle Frank."  
 6.0: Dinner session, "Columbia" hour.  
 Orchestral—Mengelberg's Concertgebouw Orchestra, "Oberon Overture, Part 1 and 2" (Weber) (04347).  
 Octet—Squire's Chamber Orchestra, "L'Arlesienne Suite" (Intermezzo).  
 6.13: Tacet.  
 6.15: Orchestral—Memorah Symphony Orchestra, "Shulamith Selection." Band—B.B.C. Wireless Military Band, "Indian Queen" (arr. C. Sharp).  
 Octet—Squire's Chamber Orchestra, "L'Arlesienne Suite Minuet."  
 6.29: Tacet.  
 6.30: Orchestral—New Queen's Hall Orchestra, "Slavonic Dance in G Minor." Band—B.B.C. Wireless Band, "Helston Furry Processional." Orchestral—Classic Symphony Orchestra, "Classical Memories."  
 6.44: Tacet.  
 6.45: Octet—Squire's Celeste Octet, "Ave Maria" (Bach) (02569).  
 Poltronieri String Quartet, "Quartet in E Andante and Canzonetta." Orchestral—Squire's Celeste Octet, "On Wings of Song."  
 6.58: Tacet.  
 7.0: News session.  
 7.30: Talk—"Farm Management and the Price Level," by Dr. I. W. Weston, Farm Economist, Canterbury Agricultural College.  
 8.0: Chimes.  
 Programme of Music by New Zealand Composers arranged by 3YA Musical and Dramatic Committee—Mr. T. W. Dent, Chairman, will open the programme with a short prologue.  
 Overture—Christchurch Orchestral Society's Orchestra, "Jours, Passe."  
 8.12: Baritone and chorus—Mr. T. D. Williams and Concordia Chorus, "Zealandia" (Words by R. Thompson) (H. Rossiter).  
 8.17: Instrumental trio, violin, 'cello and piano—Christchurch Broadcasting Trio, "Berceuse" (Gordon McBeth).  
 8.21: Soprano—Miss Lillian Hanham "Slumber Song" (with 'cello obligato by Miss Pearl Stringer (Dorothy Filkins).  
 8.26: Violin—Mr. Bernard Barker, "Elegie" (Frank Hutchens).  
 8.33: Elocutionary number—Mr. Harold Shaw, "The Passing of the Forest."  
 8.37: Contralto—Miss Mary Taylor, "Search Me O' God" (Alice Forrester).

- 8.41: Piano—Miss Dorothy Davies, "Andante" (Frank Hutchens).  
 8.46: Tenor—Mr. Harold Prescott, "Achal by the Sea" (Rosada Lawrence).  
 8.50: 'Cello—Miss Pearl Stringer, "Nocturne" (Dorothy Filkins).  
 8.55: Baritone and chorus—Mr. T. D. Williams and Concordia Chorus, "We're Coming Back Zealandia" (words by Mr. F. C. Jenkin).  
 9.0: Weather report and station notices.  
 9.2: Overture—Christchurch Orchestral Society's Orchestra, Tone Poem, "Corisande" (R. A. Horne).  
 9.10: Soprano—Miss Lily Hanham, "O Salutaris Hostia" (with violin and 'cello obligato by Irene Morris and Harold Beck) (H. Rossiter).  
 9.14: Instrumental—Christchurch Broadcasting Trio, "Trio in F Sharp Minor" (Frank Hutchens).  
 9.22: School song—Avonside branch of the Girls' High School (Conductress, Miss J. Black, "Land of Our Love" (words by Jessie MacKay).  
 9.26: Baritone—Mr. T. D. Williams, "I Gave You a Gift" (Mai Burns Loughnan).  
 9.29: Violin—Miss I. Morris, "Souvenir" (Mai Burns Loughnan).  
 9.33: Elocutionary item—Mr. Harold Shaw, "Maoriland" (Adams).  
 9.38: Contralto—Miss Mary Taylor, (a) "Aroha" (Te Rangi Pai); (b) "Haere! Haere Mai" (Ka Te Kaura).  
 9.44: Instrumental Quartet—Concordia String Quartet, "Quartet in G Major" (Dorothy Filkins).  
 9.49: Tenor—Mr. Harold Prescott, "Ave Maria" (with piano, organ, and violin) (R. A. Horne).  
 9.52: Cantata Soprano Contralto to Chorus and Orchestra, "Prometheus Unbound" (Dorothy Filkins).  
 God Save the King.

### 4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, JUNE 26.

SILENT DAY.

## Friday, June 27

### 1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, JUNE 27.

- 3.0: Afternoon session—Selected studio items, and literary selection by the Announcer.  
 4.30: Close down.  
 5.0: Children's session, conducted by "Nod" and "Aunt Jean."  
 6.0: Dinner session—"H.M.V." Hour:  
 Suite—London Symphony Orchestra, "Czar Sultan Suite" (Rimsky-Korsakov) (D1491).  
 Waltz—International Concert Orchestra, "Waltz Dream" (Strauss).  
 6.12: Tacet.  
 6.15: Suite—New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg): (1) Ingrid's Lament, (2) Arabian Dance (C1571).  
 New Light Symphony Orchestra, "Prelude in G Minor" (Rachmaninoff).  
 6.27: Tacet.  
 6.30: Suite—"Peer Gynt Suite" (Grieg): (1) Return of Peer Gynt, (2) Solveig's Song (C1572).  
 New Light Symphony Orchestra, "Prelude in C Sharp Minor" (Rachmaninoff) (Zonophone EF24).  
 6.42: Tacet.  
 6.45: Philadelphia Symphony Orchestra, "Danse Orientale" (Glazounov).  
 Waltz—International Concert Orchestra, "Sari" (Kalman) (Zono.).  
 March—Philadelphia Symphony Orchestra, "March of the Caucasian Chief" (Ippolitoff-Iwanoff) (E521).  
 6.57: Tacet.  
 7.0: News and market reports.  
 7.40: Talk—Mr. J. F. Montague, "Maori Pronunciation and Place Names."  
 8.0: Chimes. New Symphony Orchestra, "Children's Overture" (Quilter).  
 8.12: Contralto—Miss Kay Christie, (a) "Will o' the Wisp" (Spross).  
 8.19: Instrumental trio—Studio Trio, (a) "The Two Sheep" (Martini), (b) "Spring Floods" (Rachmaninoff).  
 8.26: Vocal duet—Mr. Norman Day and Madame Cora Melvin, "Calm, Silent Night" (Goetze).  
 8.30: Piano solo—Mr. Eric Waters, "Carillon" (O'Neill).  
 8.35: Baritone—Mr. Norman Day, (a) "When a Merry Maiden" (Helmund), (b) "Ritournelle" (Chaminade).  
 8.42: Soprano cornetist—Mr. A. Webb, "In the Vale of Llangollen."  
 8.46: Talk—Mr. A. B. Chappell, M.A., "Topical Talk."  
 9.1: Evening weather forecast and announcements.  
 9.3: Instrumental trio—Studio Trio, (a) "Autumn Song" (Tschaiakowsky), (b) "Valse Mignonne" (Palmgren).  
 9.12: Soprano—Madame Cora Melvin, (a) "If My Songs Were Only Winged" (Hahn), (b) "The Enchanted Forest" (Phillips).  
 9.19: Orchestral—New Symphony Orchestra, "Le Cid Ballet Music" (Massetet): (1) Castillane, (2) Aubade (H.M.V. C1638).  
 9.23: Vocal duet—Mr. Norman Day and Madame Cora Melvin, "Still as the Night" (Bohm).  
 9.27: Piano solo—Mr. Eric Waters, "La Plus Que Lente" (Debussy).  
 9.32: Contralto—Miss Kay Christie, "Big Lady Moon" (Coleridge-Taylor).  
 9.36: Soprano cornet—Mr. A. Webb, (a) "Scenes that are Brightest" (Wallace), (b) "Intermezzo from 'Cavalleria Rusticana'" (Mascagni).  
 9.43: Orchestral—New Symphony Orchestra, "Le Cid Ballet Music" (Massetet): (3) Navarraise, (4) Madrilene.  
 10.1: God Save the King.



**2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, JUNE 27.**

- 3.0 : Chimes. Selected studio items.  
 3.30 and 4.30 : Sporting results.  
 5.0 : Children's session, conducted by Big Brother Jack.  
 6.0 : Dinner music session—"H.M.V." Hour:  
 Orchestral—New Light Symphony Orchestra, "Merry Wives of Windsor" (Nicolai) (C1260).  
 Waltz—Marek Weber and Orchestra, "Moonlight on the Alster" (Fetras) (C1407).  
 6.12 : Tacet.  
 6.15 : Intermezzo—New Light Symphony Orchestra, "Hearts and Flowers."  
 Waltz—Marek Weber's Orchestra, "Wine, Women and Song" (Weber).  
 Wurlitzer organ solo—Reginald Foort, "By the Blue Hawaiian Waters"  
 6.26 : Tacet.  
 6.30 : Orchestral—New Light Symphony Orchestra, "The Glow-Worm Idyll."  
 Orchestral—Victor Salon Orchestra, "Indian Love Call" (Friml).  
 Orchestral—Victor Salon Orchestra, "The World is Waiting for the Sunrise" (Lockhart) (EA186).  
 Orchestral—De Groot and His Orchestra, "When Summer is Gone."  
 6.43 : Tacet.  
 6.45 : Orchestral—De Groot's Orchestra, "The Merry Widow" (Lehar).  
 Wurlitzer organ solo—Reginald Foort, (a) "Leave Me Alone," (b) "Songs My Mother Taught Me" (Dvorak) (C1459).  
 6.57 : Tacet.  
 7.0 : News session, market reports and sports results.  
 7.40 : Lecturette—Mr. D. McKenzie, "The Laws of Rugby."  
 8.0 : Chimes. An Operatic and Miscellaneous Programme. (Note: During the course of this programme there will be a relay of a sound film feature from the Majestic Theatre.)  
 Overture—2YA Orchestral (Conductor, Signor A. P. Truda), "The Spartan" (Barnard).  
 Soprano—Miss Gwladys Edwardes, (a) "Caro Mio Ben" (Giordanni), (b) "Lament of Isis" (Bentock).  
 Pianoforte—Miss Elaine Newton, of Wanganui, (a) "Rhapsody in B Minor" (Brahms), (b) "Prelude in B Flat Major" (Chopin).  
 A brief song recital by Mr. Barend Harris, of Sydney: (a) "Rammental Lieti Di" (Remember Days of Old). Mephistopheles' aria from the Church Scene of Gounod's "Faust," sung in Italian, with explanatory remarks; (b) "Mephistopheles' Serenade" ("Faust") ("You would have Me think You're Sleeping"), sung in English, with explanatory remarks.  
 Selection—2YA Orchestral, "The Barber of Seville" (Rossini).  
 Elocution—Mr. Albert Davey, (a) "The Ballad of the Boliver" (Kipling), (b) "Coastwise Lights" (Kipling).  
 Cello—Pablo Casals, "Melody in E Flat" (Tschalkowsky) (Col. X317).  
 Tenor—Mr. Chas. P. Edwards, "Siciliana" ("Cavalleria Rusticana").  
 Selection—2YA Orchestral, "The Blue Kitten" (Friml).  
 Weather forecast and announcements.  
 Soprano—Miss Gwladys Edwardes, (a) "The Soldier's Wife" (Rachmaninoff), (b) "Deh Vieni non Tardar" (Mozart).  
 Piano—Miss Elaine Newton, (a) "Prelude in G Minor" (Chopin), (b) "Sunday Morning in Stuttgart" (Gordon McBeth).  
 Song recital by Mr. Barend Harris, of Sydney: (a) "Tseveh" (The Fair Maid), a Hebrew love song, sung in Hebrew, words by Yehudah Halevy, the Jewish poet of the 11th Century; music by L. Shifreen; (b) "Up from Somerset" (Sanderson).  
 Instrumental—2YA Orchestral, "Incidental Music to 'Faust'" (Coleridge Taylor).  
 Elocutionary—Mr. Albert Davey, "Grandfather Smallweel" (Dickens).  
 Selection—Band of the Garde Republicaine of France, "Carmen Entr'acte" (Bizet) (Columbia 02747).  
 Tenor—Mr. Chas. Edwards, "My Desert Flower" (Norton).  
 Valse Lente, 2YA Orchestral, "Sous les Etoiles" (Selmour) (Beneath the Stars).  
 10.0 : God Save the King.

**3YA, CHRISTCHURCH (980 KILOCYCLES)—FRIDAY, JUNE 27.**

- 3.0 : Afternoon session.  
 4.25 : Sports results.  
 4.30 : Close down.  
 5.0 : Children's hour, "Ladybird and Uncle Frank."  
 6.0 : Dinner session, "H.M.V." hour.  
 Orchestral—Boston Symphony Orchestra, "Frühlingstimmen."  
 Organ—Jesse Crawford, "Serenade" (Romberg) (EA638).  
 Band—National Military Band, "Ben Hur" (Byng) A365).  
 6.13 : Tacet.  
 6.15 : Orchestral—Vienna Philharmonic, "Dorfschwalben" (Strauss).  
 Violin—David Wise, "Canzonetta" (D'Ambrosio) (Zono. 5420).  
 Orchestral—Jack Hylton and His Orchestra, "Steppin' Out."  
 6.29 : Tacet.  
 6.30 : Orchestral—New Mayfair Orchestra, "Wake Up and Dream."  
 Organ—Jesse Crawford, "Indian Love Call" (Friml) (EA638).  
 Orchestral—International Novelty Orchestra, "To Die Dreaming."  
 Orchestral—International Novelty Orchestra, "Four Little Farms."  
 6.43 : Tacet.  
 Violin—David Wise, "Cavalleria Rusticana" (Mascagni).  
 Orchestral—Jack Hylton and His Orchestra, "Lonesome Little Doll."  
 6.59 : Tacet.  
 7.0 : News session.

- 8.0 : Chimes.  
 Overture—New Mayfair Orchestra, "Wake Up and Dream" (Porter).  
 8.4 : Tenor—Mr. Douglas Suckling, "The Sailors of the King" (Byng).  
 8.6 : Selection—Studio Instrumental Octet (Conductor, Mr. Harold Beck), "My Lady Frayle" (Finck).  
 8.15 : Mezzo-soprano—Mrs. L. Barriball, (a) "The Brightest Day" (Easthope Martin); (b) "The First of May" (Easthope Martin).  
 8.21 : Humour—Mr. George Titchener, "The Agitator" (M.S.).  
 8.27 : Selection—Studio Instrumental Octet, "The Leak" (arr. Myddleton).  
 8.35 : Bass—Mr. W. J. Richards, (a) "The Skipper" (Jude); (b) "A Chip of the Old Block" (Squire).  
 8.43 : Instrumental—Studio Instrumental Octet, "Vienna Life" (waltz).  
 8.53 : Tenor—Mr. Douglas Suckling, (a) "I Dream of a Garden of Sunshine" (Lohr); (b) "For You Alone" (Geehl).  
 9.0 : Weather report and station notices.  
 9.2 : Overture—Studio Instrumental Octet, "Hungarian Lustspiel."  
 9.11 : Mezzo-soprano—Mrs. L. Barriball, "Hymns of the Old Church Choir."  
 9.15 : Instrumental—Studio Instrumental Octet, (a) "Slave Dance (Alf Pratt); (b) "Tin Soldiers" (Kockert).  
 9.27 : Bass—Mr. W. J. Richards, "Up from Somerset" (Sanderson).  
 Dance music until 11 p.m. "Columbia."  
 Foxtrot—Palais Royal Orchestra, "Louise" (Whiting).  
 Foxtrot—Ambassadors Band, "My Man" (Channing) (01566).  
 Foxtrot—Willie Crager's Orchestra, "On Top of the World Alone."  
 Foxtrot—Ambassadors Band, "Second Hand Rose" (Clarke) (01569).  
 9.42 : Hawaiian—Milford's Hawaiian Players, "Hawaiian Hotel" (Nainas).  
 Foxtrot—The Harmonians, "When My Dreams Come True" (Berlin).  
 Foxtrot—Paul Whiteman's Orchestra, "China Boy" (Winfree).  
 Foxtrot—Stellar Dance Band, "This is Heaven" (Yellen).  
 Waltz—The Piccadilly Players, "Lisette" (Major and Andrew).  
 9.57 : Soprano solo—Marie Burke, "I'd Rather be Blue Over You" (Rose).  
 Foxtrot—Paul Whiteman's Orchestra, "I'm in Seventh Heaven."  
 Foxtrot—Paul Whiteman's Orchestra, "Oh, Miss Hannah" (Deppen).  
 Foxtrot—Paul Whiteman's Orchestra, "Little Pal" (de Sylva) (07023).  
 Foxtrot—Rhythmic Troubadours, "You're the Cream in My Coffee."  
 10.12 : Hawaiian—Milford's Hawaiian Players, "Honeymoon Chimes."  
 Foxtrot—Royal Canadians, "This is Heaven" (Yellen) (01632).  
 Foxtrot—Royal Canadians, "I Get the Blues when it Rains" (Weaver).  
 Waltz—Milford's Hawaiian Players, "Kawaihan" (Hawaiian air).  
 10.24 : Soprano—Marie Burke, "You Kiss My Hand, Monsieur" (Erwin).  
 Foxtrot—Rhythmic Troubadours, "Jericho" (Robin) (Regal G20532).  
 Foxtrot—The Piccadilly Players, "I Found You Out When I Found You In" (O'Flynn-Pence) (01568).  
 Foxtrot—Ray Starita's Ambassadors, "Ever So Goosey" (Wright).  
 Foxtrot—Rhythmic Troubadours, "Do Something" (Green).  
 Foxtrot—Ipapa Troubadours, "To Be in Love" (Turk) (01660).  
 10.42 : Hawaiian—Milford's Hawaiian Players, "Aloha Land" (Herzer).  
 Foxtrot—All Star Trio, "Dream Mother" (Burke) (01630).  
 Foxtrot—Rhythmic Troubadours, "To Know You is to Love You."  
 Foxtrot—Corona Dance Band, "Olaf" (Baer) (Regal G20519).  
 Waltz—All Star Trio, "Evangeline" (Jolson) (01630).  
 11.0 : God Save the King.

**4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, JUNE 27.**

- 3.0 : Chimes. Selected gramophone items.  
 4.25 : Sporting results.  
 4.30 : Close down.  
 5.0 : Children's hour, conducted by Aunt Shella.  
 6.0 : Dinner music, "H.M.V." hour.  
 Orchestral—Berlin State Opera Orchestra, "Polonaise" (Liszt).  
 Violin—Isolde Menges, "Nocturne in E Flat, Op. 9, No. 2" (D1288).  
 6.13 : Tacet.  
 6.15 : Band—H.M. Coldstream Guards, "La Fille de Madame Angot."  
 Piano—Mark Hambourg, "Rakoczy March" (Liszt) (C1439).  
 Orchestral—John Barbirolli's Chamber Orchestra, "A Little Night Music, 1st Movement" (Mozart) (C1655).  
 6.29 : Tacet.  
 6.30 : Orchestral—John Barbirolli's Chamber Orchestra, "A Little Night Music, 2nd, 3rd and 4th Movements" (C1655/6).  
 Piano—Mark Hambourg, "On Wings of Song" (Mendelssohn) (C1439).  
 6.44 : Tacet.  
 6.45 : Quartet—Virtuoso String Quartet, "Londonderry Air" (Arrgd.).  
 Violin—Isolde Menges, "Air on G String" (Bach) (D1288).  
 Quartet—Virtuoso String Quartet, "The Emperor Quartet, Op. 76, No. 3" (Haydn) (C1470).  
 6.58 : Tacet.  
 7.0 : News session.  
 8.0 : Chimes.  
 Overture—National Symphony Orchestra, "Zampa" (Herold).  
 8.9 : Tenor—Mr. A. Walsley, (a) "The Short Cut to the Roses" (arr. Fox); (b) "Sweet Early Violets" (Sherrington).  
 8.14 : Instrumental—4YA Trio, "Trio in E Flat, 1st Movement" (Fischer).  
 8.20 : Sketch—Winkel-Lampen Radio Players, "The Stranger" (Peach).  
 8.26 : Violin—Mischa Elman, "Oriental Kaleidoscope" (Cui).  
 8.30 : Contralto—Miss Irene Hornblow, "Praise the Lord" (Craxton).  
 8.34 : Piano—Mr. Max Scherek, "The Submerged Cathedral" (Debussy).  
 8.39 : Bass—Mr. Arthur W. Alloo, (a) "The Secret" (Scott); (b) "I Did Not Know" (Trottere).  
 8.46 : Instrumental—4YA Studio Trio, "Trio in E Flat, 2nd and 3rd Movements" (Beethoven).  
 8.56 : Soprano—Miss Rae Stubbs, "Callers Herring" (Nairne).



- 8.59: Weather Report.  
 9.1 : Selection—La Scala Orchestra, "La Figlia del Reggimento" (Donizetti).  
 9.9 : Tenor—Mr. A. Walmisley, (a) "Annabelle Lee" (arr. Wilson); (b) "The Bard's Legacy" (arr. Hughes).  
 9.15: Trio—4YA Studio Trio, "Scherzo from Trio in B Flat" (Schubert).  
 9.20: Sketch—Winkel-Lampen Radio Players, "Stung" (Peach).  
 9.25: Contralto—Miss Irene Horniblow, (a) "Were You There?" (Burleigh); (b) "By and By" (Burleigh).  
 9.31: 'Cello—Mr. P. J. Palmer, "Gavotte" (Popper).  
 9.36: Violin—Mischa Elman, "Souvenir" (Drda) (H.M.V. DA1010).  
 9.40: Bass—Mr. Arthur W. Alloo, "The Wanderer" (Schubert).  
 9.44: Instrumental—4YA Studio Trio, "Trio in B Flat Finale" (Beethoven).  
 9.51: Soprano—Miss Rae Stubbs, (a) "My Lover is a Fisherman" (Strickland); (b) "Top Flat" (Brahms).  
 9.57: Band—National Military Band, "Ben Hur" (Byng) (Zono. A365).  
 10.1 : God Save the King.

## Saturday, June 28

### 1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, JUNE 28.

- 3.0 : Relay of description of Rugby Football Match from Eden Park. Announcer, Mr. G. Hutter.  
 4.30: Close down.  
 5.0 : Children's session, conducted by "Cinderella."  
 6.0 : Dinner session—"Columbia" Hour:  
 Medley—H.M. Grenadier Guards Band, "Sir Harry Lauder Medley"  
 Waltz—Symphony Orchestra, "Doctrinen" (Strauss) (02529).  
 6.12: Tacet.  
 6.15: Piano solo—Gil Dech, "Wedding of the Painted Doll" (Freed) (01549).  
 Piano solo—Constance Mering, "So Dear" (Caesar) (01224).  
 Waltz medley—Eddie Thomas's Collegians (02904).  
 Saxophone—Rudy Wiedoeft, "Minuet" (Beethoven) (01176).  
 6.28: Tacet.  
 6.30: Mandolin band—Circolo Mandolinistico, "La Traviata" Prelude Acts 1 and 4" (Verdi) (02566).  
 Waltz—Symphony Orchestra, "When the Lemons Bloom" (Strauss).  
 6.42: Tacet.  
 6.45: Musical Art Quartet, "Mighty Lak' a Rose" (Nevin) (01506).  
 Saxophone—Rudy Wiedoeft, "Valse Mazanetta" (Wiedoeft) (01176).  
 Piano solo—Gil Dech, "I Kiss Your Hand, Madame" (Erwin) (01549).  
 Eddie Thomas's Collegians, "Beautiful Ohio" (Earl) (02904).  
 6.57: Tacet.  
 7.0 : News and market reports.  
 8.0 : Chimes. Relay of Municipal Concert from the Auckland Town Hall, under the conductorship of Mr. Christopher Smith.  
 10.0 (approx.): Programme of dance music—"H.M.V." Hour:  
 Foxtrot—Connecticut Yankees, "Where are You, Dream Girl?" (Davis).  
 Foxtrot—Ted Weem's Orchestra, "Here We Are" (Warren) (EA602).  
 Foxtrot—Connecticut Yankees, "Pretending" (Porter) (EA605).  
 Foxtrot—Ted Weem's Orchestra, "Piccolo Pete" (Baxter) (EA602).  
 10.12: Vocal duet—Gladys Rice and Franklyn Baur, "You're the Cream in My Coffee" (De Sylva) (EA616).  
 Foxtrot—Gus Arnheim's Orchestra, "Now I'm in Love" (Shapiro).  
 Foxtrot—Jack Hylton's Orchestra, "Ever So Goosey" (Butler).  
 Foxtrot—Ted Weem's Orchestra, "Am I a Passing Fancy?" (Silver).  
 Waltz—Connecticut Yankees, "Underneath the Russian Moon."  
 Waltz—Hilo Hawaiian Orchestra, "Sparkling Waters of Waikiki."  
 10.30: Tenor—Morton Downey, "The World is Yours and Mine" (Green).  
 Foxtrot—Ted Weem's Orchestra, "What a Day!" (Woods) (EA606).  
 Foxtrot—Connecticut Yankees, "The One that I Love, Loves Me."  
 Foxtrot—Jack Hylton and His Orchestra, "The Toymaker's Dream."  
 10.48: Vocal duet—Billy Murray and Walter Scanlon, "Oh, Baby, What a Night" (Brown) (EA613).  
 Foxtrot—Rudy Vallee and Connecticut Yankees, "I'll Be Reminded of You" (Heyman-Smith) (EA664).  
 Foxtrot—Gus Arnheim's Orchestra, "This is Heaven" (Yellen) (EA583).  
 Foxtrot—All Star Orchestra, "Waiting at the End of the Road."  
 Foxtrot—Gus Arnheim's Orchestra, "One Sweet Kiss" (Jolson).  
 Waltz—Gus Arnheim's Orchestra, "Sleepy Valley" (Sterling) (EA583).  
 11.0 : God Save the King.

### 2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, JUNE 28.

- 3.0 : Chimes. Selected studio items.  
 3.30 and 4.30: Sporting results.  
 4.55: Close down.  
 5.0 : Children's session, conducted by Uncle Toby.  
 6.0 : Dinner session—"Columbia" Hour:  
 March—H.M. Grenadier Guards, "Martial Moments" (arr. Winter).  
 Waltz—Eddie Thomas's Collegians, "Missouri Waltz" (Logan) (02553).  
 6.12: Tacet.  
 6.15: Violin (and Wurlitzer organ)—Marrnello, "Evening in the Desert."  
 Hawaiian—South Sea Islanders, "Dreamy Hilo Bay" (Heagney).  
 March—Columbia Symphony Orchestra, "March of the Toys" (Herbert).  
 Piano solo—Percy Grainger, "Molly on the Shore" (Grainger) (03575).  
 3.26: Tacet.  
 6.30: Waltz—Eddie Thomas's Collegians, "Till We Meet Again" (Whiting).  
 Waltz—Eddie Thomas's Collegians, "Beautiful Ohio" (Earl) (02651).

- Piccolo duet—Jean and Pierre Gennin, "Rippling Streams" (Gennin).  
 6.41: Tacet.  
 6.45: Violin and organ—Marrnello, "Once" (Sanders) (Regal G20420).  
 Xylophone—W. W. Bennett, "Gee Whiz" (Byron) (02575).  
 Hawaiian—South Sea Islanders, "Lei Lan" (Heagney) (Col. 01162).  
 Instrumental—Denza Dance Band, "In the Shadows" (Finck) (Regal).  
 6.58: Tacet.  
 7.0 : News session, market reports and sports results.  
 7.40: Lecture—Mr. J. B. Elliott, B.A., a W.E.A. Lecturer in Classics, Victoria College, "The Roman Occupation in Britain."  
 8.0 : Chimes. A special programme by the Wellington Optimists' Club and the Salon Orchestra, "Taking Optimism to the Old Folks at Home."  
 10.0 : Dance programme—"H.M.V." Hour:  
 Foxtrot—Nat Shilkret and His Orchestra, "Nobody but You" (B5691).  
 Foxtrot—Jack Hylton and His Orchestra, "Orange Blossom Time."  
 Foxtrot—Nat Shilkret and His Orchestra, "Your Mother and Mine."  
 Foxtrot—The Rounders, Jack Hylton and His Orchestra, "Singin' in the Rain" (Freed-Brown) (B5700).  
 Foxtrot—The High-Hatters, "Low Down Rhythm" (Klages-Green).  
 10.15: Waltz—Leo Reisman and His Orchestra, "Dance Away the Night."  
 Humour—Norman Long, "Is it British?" (K. and G. Weston) (B2580).  
 10.21: Foxtrot—Henry Busse and His Orchestra, "Since I Found You."  
 Foxtrot—Waring's Pennsylvanians, "Button Up Your Overcoat."  
 Foxtrot—Charles Dornberger and Orchestra, "Maybe—Who Knows?"  
 Foxtrot—Waring's Pennsylvanians, "My Lucky Star" (Victor 21861).  
 Foxtrot—Leo Reisman and His Orchestra, "Doing the Boom-Boom."  
 10.36: Waltz—Henry Busse and His Orchestra, "Like a Breath of Springtime" (Dubin-Burke) (EA648).  
 Vocal—Norman Long, "I Think of You" (K. and G. Weston) (B2580).  
 10.42: Foxtrot—Victor Arden, Phil Ohman, and Their Orchestra, "Love, Your Spell is Everywhere" (Janis-Goulding) (EA642).  
 Foxtrot—Nat Shilkret and His Orchestra, "You Made Me Love You, Why Did You?" (Lombardo-Kippel) (EA647).  
 Foxtrot—Leo Reisman and His Orchestra, "Look What You've Done to Me" (Conrad-Mitchell-Gottler) (EA652).  
 10.51: Waltz—Ben Pollack and His Park Central Orchestra, "You're Always in My Arms" (McCarthy-Tierney) (EA646).  
 Foxtrot—Ben Pollack and His Park Central Orchestra, "Sweetheart, We Need Each Other" (McCarthy-Tierney) (EA646).  
 Foxtrot—Charles Dornberger and Orchestra, "I Want to Meander in the Meadow" (Wood and Tobias) (EA651).  
 11.0 : Sports summary.  
 11.10: God Save the King.

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, JUNE 28.

- 3.0 : Afternoon Session Gramophone Recital.  
 4.25: Sports results.  
 4.30: Close down.  
 5.0 : Children's Hour, "Aunt Pat and Uncle Charlie."  
 6.0 : Dinner Session, "Parlophone" Hour.  
 Fantasia—Edith Lorand Orchestra, "Johann Strauss Fantasia" (Strauss) (A4044).  
 Piano and Orchestra—Raie da Costa and Orchestra, "When Day Is Done" (de Sylva) (A4041).  
 6.12: Tacet.  
 6.15: Hawaiian—David Kalli, "Honolulu March" (A2464).  
 Kinema organ—Leslie Harvey, "Where the Shy Little Violets Grow" (Warren) (A2695).  
 Waltz—Dajos Bela Orchestra, "The Grenadiers" (Waldteufel).  
 6.28: Saxophone—Arnold Brilhart, "Fascination" (Bernie) (A2676).  
 6.28: Tacet.  
 6.30: Waltz—Dajos Bela Orchestra, "Polish Life" (Nedbal) (A4008).  
 Piano and Orchestra—Raie da Costa and Orchestra, "Sweetheart I'm Dreaming of You" (Carter) (A4041).  
 Instrumental—Dajos Bela Orchestra, "Dancing Demoiselle" (Fall).  
 6.42: Tacet.  
 6.45: Selection—Edith Lorand Orchestra, "Dollar Princess" (Fall).  
 Waltz—Dajos Bela Orchestra, "Casino Tanze" (Gungl) (A4081).  
 6.57: Tacet.  
 7.0 : News Session.  
 7.30: Sports Results.  
 8.0 : Chimes.  
 Overture—Debroy Somers' Band, "Good News" (de Sylva).  
 8.9: Bass—Mr. W. H. Inkster, "Three for Jack" (Squire).  
 8.18: Soprano—Miss Hilda Hutt, (a) "I Hear a Thrush at Eve" (Cadman); (b) "The Waking of Spring" (Del Reigo).  
 8.19: Organ—Frederic Curzon, "For Old-Times Sake" (de Sylva).  
 8.22: Vaudeville turn—The Happiness Boys, "In Bits and Pieces."  
 9.34: Novelty—London Mouthorgan Band, "Joyous Greetings March."  
 8.38: Contralto—Miss Kathleen Bond, (a) "The Four-leaf Clover" (Willeby); (b) "Sincerity" (Emilie Clarke).  
 8.44: At the piano—Miss Helen Macdonald, (a) "Song of the Wanderer" (own arrangement); (b) "Lay My Head Beneath a Rose."  
 8.50: Baritone—Mr. C. L. Richards, "For the Green" (Lohr).  
 8.54: Recitation to piano accompaniment—Miss Lily Kinsella, "Behind the Veil" (Bond-Andrews).  
 9.0 : Weather report and station notices.  
 9.2 : Band—H.M. Grenadier Guards, "In a Clock Store" (Orth).  
 9.6 : Bass—Mr. W. H. Inkster, (a) "Till the Sands of the Desert Grow Cold" (Ball); (b) "Somewhere a Voice is Calling" (Tate).

- 9.13: Soprano—Miss Hilda Hutt, "Love's a Merchant" (Molly Carew).  
 9.17: Organ—Frederic Curzon, "Sonny Boy" (de Sylva) (Regal G20475).  
 9.21: Vaudeville turn—The Happiness Boys, "In Bits and Pieces."  
 9.33: Novelty—Miss Kathleen Bond, "The Connemara Shore" (Fisher).  
 9.37: Novelty—London Mouthorgan Band, "The Royal Return."  
 9.41: Baritone—Mr. C. L. Richards, (a) "The Powder Monkey" (Watson);  
 "The Rebel" (Wallace).  
 9.47: At the piano—Miss Helen Macdonald, Foxtrot, "Someday, Sweetheart"  
 (own arrgt.); Waltz, "Russian Moon" (own arrgt.).  
 9.52: Recitation to piano accompaniment—Miss Lily Kinsella, "The Cele-  
 brity" (Adeock).  
 Dance music—"Brunswick" Hour.  
 Waltz with vocal chorus—Regent Club Orchestra, "Marie" (Berlin).  
 Foxtrot with vocal chorus—Hotel Roosevelt Orchestra, "I Kiss Your  
 Hand, Madame" (Lewis-Young) (Brunswick 4315).  
 Waltz with vocal chorus—Regent Club Orchestra, "Where is the Song  
 of Songs for Me?" (Berlin) (4257).  
 Foxtrot with vocal chorus—Hotel Roosevelt Orchestra, "I've Got a  
 Feeling I'm Falling" (Rose-Link) (4315).  
 10.13: Baritone solo—John Charles Thomas, "Rolling Down to Rio."  
 Foxtrot with vocal chorus—Gerunovich's Roof Garden Orchestra,  
 "Stairway of Dreams" (Stone) (4277).  
 Foxtrot with vocal trio—Gerunovich's Roof Garden Orchestra, "That's  
 the Good Old Sunny South" (Ager) (4277).  
 Foxtrot with vocal chorus—Hotel Roosevelt Orchestra, "I'll Tell the  
 World" (Turk) (4253).  
 Waltz with vocal chorus—Hotel Roosevelt Orchestra, "Sweet Suzanne."  
 10.29: Vocal solo—Bob Nolan, "Rose of Mandalay" (Magine-Koehler) (4248).  
 Foxtrot with vocal trio—Los Angeles Biltmore Hotel Orchestra, "Do  
 You Ever Think of Me?" (Burtnett) (4217).  
 Foxtrot with vocal chorus—Los Angeles Biltmore Hotel Orchestra,  
 "Plodding Along" (Caminando) (4217).  
 Foxtrot with vocal chorus—Colonial Club Orchestra, (a) "Naughty  
 Eyes" (Fork-Locke); (b) "Leave Me With a Beautiful Melody."  
 10.43: Vocal solo—Bob Nolan, "Caressing You" (Faziolo-Klages) (4248).  
 Foxtrots with vocal chorus—Hotel Roosevelt Orchestra, (a) "Mean to  
 Me" (Turk); (b) "My Castle in Spain is a Shack in the Lane."  
 Foxtrots with vocal chorus—The Clevelanders, (a) "Shout Hallelujah,  
 'Cause I'm Home" (Dixon); (b) "There's a Place in the Sun for  
 You" (Green-Fain) (4255).  
 11.0: God Save the King.

#### 4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, JUNE 28.

- 1.30: Running descriptions of football matches at Carlsbrook by Rev. A. L.  
 Canter.  
 4.25: Sporting results.  
 4.30: Close down.  
 5.0: Children's hour, conducted by Aunt Anita.  
 6.0: Dinner music, "Columbia" hour.  
 March—National Military Band, "National Emblem" (Bagley).  
 'Cello—W. H. Squire, "The Broken Melody" (Van Biene) (04180).  
 Albert Sanders' Orchestra, "I Kiss Your Hand, Madame" (Erwin).  
 Kinema organ—G. T. Pattman, "Cherie Waltz" (Valentine) (01344).  
 6.12: Tacet.  
 6.15: Court Symphony Orchestra, "The Gondoliers" (Sullivan) (979).  
 Paul Whiteman's Orchestra, "Gypsy" (Gilbert).  
 6.27: Tacet.  
 6.30: Albert Sanders' Orchestra, "Chalita" (Schertzinger) (01467).  
 Padilla's Marimba Serenaders, "Paree" (Padilla) (Regal G20344).  
 Piano—Gil Dech, "Sometimes I'm Happy" (Younans) (01205).  
 Royal Serbian Tambouritzza Orchestra, "Serbian Melody" (01490).  
 6.42: Tacet.  
 6.45: Intermezzo—Ketelbey's Orchestra, "Bells Across the Meadow."  
 Rio Marimba Serenaders, "Dolores Waltz" (Waldteufel).  
 Organ—G. T. Pattman, "Worryin' Waltz" (Fairman) (01344).  
 March—National Military Band, "Stars and Stripes" (Souza).  
 6.57: Tacet.  
 7.0: News session.  
 8.0: Relay of performance by Dunedin Amateur Operatic Society, "The  
 Runaway Girl" (Monckton and Caryl).  
 10.0: Dance session, "Columbia" hour.  
 Foxtrot—Ipana Troubadours, "Building a Nest for Mary" (Greer).  
 Slow Foxtrot—Piccadilly Players, "Boogie Wall" (Wallace) (01567).  
 Foxtrot—Ipana Troubadours, "I Used to Love Her in the Moonlight."  
 Waltz—Rhythmic Troubadours, "My Irish Paradise" (Tilsley).  
 10.12: Vocal duet—Layton and Johnstone, "Lady Divine" (Shilkret) (01658).  
 Foxtrot—Piccadilly Players, "I'll Always be Mother's Boy" (Green).  
 Foxtrot—Paul Whiteman's Orchestra, "When My Dreams Come True."  
 Foxtrot—Piccadilly Players, "There'll Be You and I" (Green) (01639).  
 Foxtrot—Piccadilly Players, "I'm Tickled to Death I'm Me" (Butler).  
 10.27: Kinema organ—Regal Kinema Organ, "Long Ago" (Elliott).  
 Foxtrot—Lou Gold's Orchestra, "Walking With Susie" (Gottler).  
 Foxtrot—Paul Whiteman's Orchestra, "Reaching for Someone."  
 Foxtrot—Bert Lown's Loungers, "Big City Blues" (Gottler).  
 Waltz—Cafe Royal Band, "Forever" (Yellen) (Regal G20551).  
 Waltz—The Cavaliers, "My Dear" (Kahn) (01646).  
 10.45: Vocal solo—Ruth Etting, "You're the Cream in My Coffee" (de Sylva).  
 Foxtrot—Paul Whiteman's Orchestra, "S'Posin'" (Razaf) (07027).  
 Foxtrot—Piccadilly Players, "My Mother's Eyes" (Baer) (01646).  
 Paul Whiteman's Orchestra, "Laughing Marionette" (Collins) (07207).  
 Foxtrot—Lou Gold's Orchestra, "Breakaway" (Gottler).  
 11.0: God Save the King.

## Sunday, June 29

### 1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, JUNE 29.

- 3.0: Talk—Relay from Pitt Street Methodist Church. Address by Miss  
 Yuki Kimura of Japan, to the Interdenominational Youth's Council.  
 Literary selection by the Announcer.  
 4.30: Close down.  
 6.0: Children's Song Service, conducted by "Uncle Leo."  
 6.55: Relay—Divine Service, Beresford Street Congregational Church.  
 Preacher: Rev. Lionel B. Fletcher. Organist and Choirmaster:  
 Mr. W. Gemmell.  
 8.30: (Approx.)—Selection—Classic Symphony Orchestra, "Classical Me-  
 mories" (arr. Ewing) (Regal G30024).  
 Soprano—Miss Mary Cofield, "Christina's Lament" (Dvorak).  
 Instrumental trio—Studio Trio, (a) "Bouree in G" (Bach); (b) "1st  
 Movement" (abridged) from "Brandenburg Concerts" (Bach).  
 Baritone—Mr. F. Baker, (a) "Oberon in Fairyland" (Slater); (b)  
 "Lute Player" (Allitsen).  
 'Cello solo—Miss Molly Wright, "In Happier Days" (Popper).  
 Soprano—Miss Mary Cofield, (a) "To a Miniature" (Brahe); (b)  
 "Two Eyes of Grey" (McGeoch).  
 Male choir—The Salisbury Singers, "Round About a Wood" (Morley).  
 Instrumental trio—Studio Trio, "1st and 2nd Movements from Trio in  
 D Major" (Eric Waters).  
 Baritone—Mr. F. Baker, "I Am Fate" (Hamblin).  
 Instrumental trio—Studio Trio, "Slow Movement and Finale from Trio  
 in D Major" (Eric Waters).  
 'Cello—Miss Molly Wright, "Rustic Dance" (Squire).  
 Selection—Band of H.M. Grenadier Guards, "Ivanhoe Selection" (Sul-  
 livan, arr. Godfrey) (Col. 02980).  
 God Save the King.

### 2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JUNE 29.

- 3.0: Chimes.  
 Afternoon session.  
 4.30: Close down.  
 6.0: Children's Song Service, conducted by Uncle George, assisted by the  
 Children's Choir from the Aro Street Mission, under the leadership  
 of Mr. Musker.  
 7.0: Relay of Evening Service of the Church of Christ, Vivian Street.  
 Preacher: Pastor W. G. Carpenter. Organist: Mrs. L. Sincok.  
 Choirmaster: Mr. W. G. Carpenter.  
 8.15: (Approx.)—Relay of Band Recital of the Wellington Municipal Tram-  
 ways Band from the St. James Theatre (Conductor, Mr. E.  
 Franklin).  
 God Save the King.

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JUNE 29.

- 3.0: Afternoon session—Gramophone recital.  
 4.30: Close down.  
 5.30: Children's Song Service by children of the Salvation Army, conducted  
 by Adjutant Goffin, of the Salvation Army.  
 6.15: From studio—Musical recordings.  
 6.30: Relay from Timaru of Choral Evening Service from Chalmers Presby-  
 terian Church. Preacher: Rev. P. Gladstone Hughes, B.A. Organ-  
 ist: Mr. J. Fraser. Choirmaster: Mr. A. E. Holst. Subject of  
 Address: "The Choir Spirit." Anthem: "Lead Kindly Light."  
 Choirmaster: Miss C. Flamank.  
 7.45: Intermission—Special musical recordings from studio.  
 8.15: (Approx.)—Relay from Timaru—Band Concert programme by Timaru  
 Municipal Band on relay from His Majesty's Theatre, Timaru.  
 God Save the King.

### 4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JUNE 29.

- 3.0: Chimes. 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 Evening Church Service from St. John's Anglican Church,  
 Roslyn. Preacher: Rev. W. A. Fitchett. Organist: Mrs. Allen.  
 7.45: Selected gramophone items from the studio.  
 Philadelphia Symphony Orchestra, "Russian Easter Festival."  
 Don Cossacks Choir, "In the Church" (Tschalkowsky); "Korsaken  
 Wiegenlied" (Gretschaninoff) (Col. 0298).  
 8.5: Relay of Kalkorai Band Concert, under direction of Mr. Thos. J. Kirk-  
 Burnand, from His Majesty's Theatre, Dunedin.  
 9.30: God Save the King.

# WHY?

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 gess Batteries. Commander  
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# BURGESS RADIO BATTERIES

# Australian News and Programmes

Thursday, June 20.

**STATION 2FC.**—10.20 p.m.: Paul Savine, pianist, in (a) "Valse" (Chopin), (b) "Prelude" (Chopin), (c) "Hornpipe" (Handel-Granger). 11 p.m.: Third episode of "Uncle Tom's Cabin." 11.40 p.m.: Phyllis Craig, popular vocalist, in new songs.

**2BL.**—9.37 p.m.: The A.B.C. Orchestra present "Lightning Switch," an orchestral novelty. 10.12 p.m.: A romantic presentation entitled "Gretna Green," introducing many well-known vocal numbers. 11.37 p.m.: A. C. C. Stevens will relate "The End of 'The Kid'," a burglar story.

**3LO.**—9.30 p.m.: "The Sunshine Boys"—two boys and a piano. 10 p.m.: Dance programme by Clarrie Collins and his Band, interspersed with variety numbers.

**3AR.**—10 p.m.: Relay of an organ recital and concert from Geelong. Included in the organ numbers will be "Chanson d'Espoir" (Meale), "Coronach" (A. E. Hull) and "Poem" (Fibich).

Friday, June 20.

**STATION 2FC.**—9.52 p.m. and 10.35 p.m.: Organ solos by G. Vern Barnett. 10.45 p.m.: Relay from 3LO, Melbourne, of the Collingwood Citizens' Band concert. 11.10 p.m.: "Aussie and Pom," a comedy interlude.

**2BL.**—9.36 p.m.: "The Month of June in Music." 9.56 p.m. and 10.46 p.m.: Jack Lumsdaine, the Radio Rascal, in songs at the piano. 10.9 p.m.: "Bonnie Prince Charlie," a romance in play form of the Stuart period.

**3LO.**—9.38 p.m.: "A Dinkum Digger," an entertainment by the popular Pat Hanna. 10.15 p.m.: Madame Joy McArden, soprano, presents (a) "Aine-moi-bergere," (b) "Herz, Mein Herz," (c) "The Minstrel Boy." 11.10 p.m.: "Aussie and Pom," a comedy interlude. 11.40 p.m.: Orchestral selection, "Fantasy Oriental," introducing Rimsky-Korsakoff's "Scherhezade."

**3AR.**—9.45 p.m.: Community singing transmitted from the Ballarat Town Hall.

Saturday, June 21.

**STATION 2FC.**—9.30 p.m.: A relay of a concert programme arranged by the Professional Musicians' Union. Of special interest to New Zealand listeners is the inclusion in this concert of Alfred Hill's Maori opera, "Teora."

**2BL.**—9.30 p.m. and 11.42 p.m.: R. A. Bartleman, baritone, in popular ballads. 9.37 p.m. and 11.21 p.m.: Fred Bluett, comedian. 9.45 p.m. and 11.29 p.m.: "Jazzinski" at the piano. Among his numbers is a classical presentation of the popular song, "Sonny Boy."

**3LO.**—9.40 p.m.: The Sundowners' Radio Revue Company present "Gaiety at the Golf Club," an original humorous and musical sketch. 10.10 p.m.: "Liebesfreud" and "Liebeslied" (Kreisler), presented by the Studio Orchestra. 10.15 p.m.: Special programme.

**3AR.**—9.30 p.m.: Relay of an orchestral concert from 2FC, Sydney.

Sunday, June 22.

**STATION 3LO.**—9.30 p.m.: A light classical programme by the Malvern Tramways Band, assisted by the Bartleman Male Choir and leading artists. 10.13 p.m.: "Poets I Have Known," a talk on modern poets by Mr. Frank Clewlow. 10.33 p.m.: Organ recital and concert.

**3AR.**—10 p.m.: Programme of compositions by Margaret Sutherland, arranged by Professor Bernard Heinze. 11 p.m.: "The Pilgrim's Progress," by John Bunyan. Specially arranged for broadcasting. The more dramatic portions of this great work will be told in narrative and dialogue on six alternate Sundays.

Monday, June 23.

**STATION 3LO.**—9.30 p.m.: "By the Fireside," an old-time musical programme, consisting of both vocal and instrumental numbers. 10 p.m.: "The Darnley Marriage," told by Captain Donald MacLean. An episode in the life of Mary, Queen of Scots. 10.30 p.m.: Vocal numbers from the Athenaeum. 11.3 p.m.: "Memories," by the "Two Old Pros." 11.18 p.m.: The story of Louis XIII.

**3AR.**—9.30 p.m.: Romances of the sea: "The Log of the Clipper Mermaid," by Mr. G. R. Leggett, B.A. 9.45 p.m.: Brass Band and variety numbers.

Tuesday, June 24.

**STATION 3LO.**—9.30 p.m.: "Castles in Spain," a musical entertainment. 10 p.m.: "A Day in My Life," by a traffic pointsman. 10.15 p.m.: Musical numbers. 11 p.m.: A further instalment of "The Jazz Spider."

**3AR.**—9.45 p.m.: Dance and variety numbers. 10.18 p.m.: "Revenge," a short French play. 10.48 p.m.: Dance numbers and vaudeville.

Wednesday, June 25.

**STATION 3LO.**—10.10 p.m.: The Victorian Postal Institute Choir, in choral music. 11.5 p.m.: "A Tabloid," a one-act dramatic sketch. 11.25 p.m.: "Liebestraume" (Liszt), and "In the Spinning Room" (Dvorak), played by the Studio Orchestra. 11.35 p.m.: "The Plantation Revue."

**3AR.**—9.45 p.m.: "Musical Souvenir," by the Regent Brass Band, who will play several numbers, interspersed with variety items, throughout the evening. 10.10 p.m.: "The Boy Comes Home," a one-act play.

# NOTES and NEWS from the NORTH

A POPULAR 1YA artist who has not the microphone. Mr. Devereux is a been heard by local listeners for several months, is Miss K. Christie, "Desert Song" Company, and has a contralto, who will sing again from 1YA on June 26. On this night the Celeste and Mati trios, the latter of whom gave us an enjoyable entertainment early in March, will be on the air again.

ANOTHER interesting reappearance from 1YA will be that of the New Zealand Four on July 9. Quartets have not been heard from 1YA during the last few months, and this combination will be welcomed back to the microphone. The bass parts will now be

## Unutterable Bunk

ONE of the Auckland dailies recently saw fit to make an entirely unprovoked and unfair attack on the sporting announcing of Mr. Gordon Hutter. One of their reporters, admittedly having nothing better to do, took down a verbatim report of Mr. Hutter's broadcast description of the race for the Great Northern Steeplechase at Ellerslie. This report was next day honoured by the best part of a column on the main news page, together with a number of very critical and obviously ignorant remarks. The reporter's final observation was that no wonder the Racing Conference barred the radio announcer from the course so long "as such unutterable bunk was put over the air."

Such remarks as the reporter made were really too contemptuous to merit a reply, were it not that one naturally resents such a grossly unfair attack. Mr. Hutter is generally acknowledged by listeners to be particularly good in describing of sporting events, and anyone who knows the difficulties under which he works at Ellerslie can only wonder that he does so well. On a dull, wet day it is no easy job to give an interesting description of a race through field-glasses from nearly a mile away, especially when only odd glimpses are obtained of the horses. Evidently the reporter knew nothing of what he was criticising, and he can hardly expect people to be influenced by such "unutterable bunk" as he wrote!



MR. GORDON HUTTER.

The versatile and popular sports announcer from 1YA, who has been made subject to ridiculous criticism. Mr. Hutter is one of the best known sports announcers in Australia and New Zealand.

—S. P. Andrew, photo.

taken by Mr. Gibbons Taylor, in place of Mr. Duncan Jack. The Clarion Quartet, whose next appearance from 1YA will be on July 2, has changed its personnel, and now consists of Beryl Smith, Duncan Black, Lambert Harvey, and Lillian Woods.

THE "B" class station, 22B, Auckland, announced during its programme on June 9 that the station would probably increase its power to 250 watts, and would go on the air daily from 10 a.m. till 3 p.m. It is not yet known when these two extensions are likely to be carried out, nor are they yet definitely arranged. The station's present output is 30 watts.

MANY new artists are to be heard from 1YA during the course of the next few weeks. In addition to those mentioned in these notes last week there are Miss Mary Cofield, soprano, July 29; Miss Kathleen Mulqueen, mezzo contralto, July 3; Mr. Ian Devereux, July 4; and Edith and Distin Strange, July 13. Miss Mulqueen is a member of the 1YA choir, but this will be her first solo appearance before

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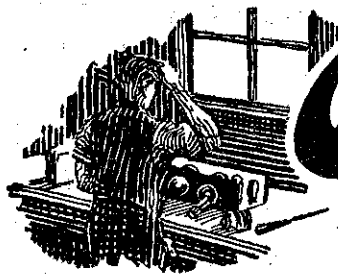
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# Questions and Answers



**"J.F.W."** (Taumarunui) wishes to purchase an all-electric chassis fitted with gramophone jacks, and wishes to use it in combination with a gramophone pick-up. If he uses it connected permanently, and places a switch in the grid side, will this be all right?

**A.:** Yes, but it really does not matter in which side you have the switch.

**"F.J."** (Okatu) asks how he might use his battery charger in place of the "A" battery.

**A.:** You will require an audio frequency smoothing choke. This can be made from directions given in the "Radio Listeners' Guide," or it can be obtained at least from Ferranti's. Then

you will need a 2000 mfd. electrolytic condenser. The smoothing choke is connected in series with one of the leads from the charger, and the smoothing choke is connected between this and the other terminal of the charger. The condenser is connected on the charger side of the choke. No transformer other than that embodied in the charger is necessary. The positive on the charger will be negative when it is used as a battery eliminator.

**"L.R.S."** (Invercargill) is not clear about the batteries to be used with the two-valve Browning-Drake, and he wants further particulars about winding the primary coil.

**A.:** We think the new "Radio Listeners' Guide" will clear up all your difficulties in this respect. There are three sets of batteries, the "A," the "B," and the "C." The "A" should be an accumulator, the plus is connected directly to the set, and the minus to the minus of the "B" battery to the plus of the "C" battery. One wire from these three connections is taken to the set, and is the common minus lead or earth connection. The highest B+ voltage goes to the radio valves, and 45 volts or even less, goes to the speaker. This is the detector voltage, for you have no audio if you are using the true Browning-Drake Two, that is, a radio and a detector stage. The primary coil is wound on a separate piece of former. It may be a 3-inch narrow strip of the ordinary former, with a section cut out so that it becomes smaller when the size of the cuts are drawn together. If now a sharp pocket-knife is run round this, and a group cut out, fine wire can be wound in this groove, and it will not project above the surface of the strip. About 15 turns are wound on, and the ends threaded through small holes in the former to hold them tightly. This is now slipped inside the main former, and it can be held in position by any convenient method. Stamp paper is quite effective, but there should be very little difference in diameter between the inside of the secondary coil and the outside of the narrow strip.

**"G.L.E."** (Wellington) asks how he might improve reception from 2YA.

**A.:** The set, although it has two valves, is really only a one-valve, as one is a rectifier. Add another stage as we have indicated in the sketch forwarded to you.

**"C.M."** (Te Kuiti) asks for fuller details of the battery charger described in our article by "Hard-Up."

**A.:** The charger consists of eight Daniell cells in series. A Daniell cell comprises a glass jar, a porous pot, a zinc and a copper rod, a saturated solution of blue-stone and a solution of epsom salts or sulphuric acid.

The former, which is less corrosive on the zinc, was described fully in the article. Place the porous pot within the jar, mix up the blue-stone solution until no more will dissolve, and pour this round, but not in, the pot. Now mix up the epsom salts solution and empty this into the porous pot. Fill them as

be added almost every week. The copper strips, which should be as heavy as possible, should be scraped often. The zinc will in time be eaten away. The system, however, works well.

**"ZEDDER"** (Masterton) asks where he might obtain a syllabus of the qualifications for the A.M.I.R.E. examinations, and where there is any college offering instructions in these subjects.

**A.:** There is no examination, but a candidate seeking admission to the institute must have served a certain portion of his time in radio professionally, he must have operated a station and be nominated as being proficient in wireless theory and practice by six well-known people connected with radio. The course given by Johnson's Wireless School, Wellington, would adequately cover the ground from the theoretical aspect.

**"F.H.W."** (Taihape) in whose set there is a noise the origin of which he cannot locate, finds that when he removes the aerial the noise still continues. Replacing a 4 megohm grid leak by a 3, made a slight reduction in the noise level.

**A.:** Was the grid leak replaced a new one? If not, it seems that the trouble is emanating from a defective grid leak, and this is probably the most common cause of noise within a set. We suggested several other courses you might adopt last time. Have you tried these out, and have they been successful?

**2.** Can I replace the 201A valve in my set with the new 221 valves without interfering with the resistances?

**A.:** Yes, although the resistances are designed to drop the voltage from 6 to 5 when  $\frac{1}{2}$  amp. valves are used; there is very little drop when only .06 amp. is passing, and this can be neglected.

**3.** Is the 221 valve as light on "B" current as the 201A valve?

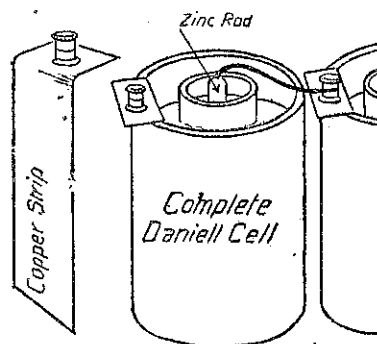
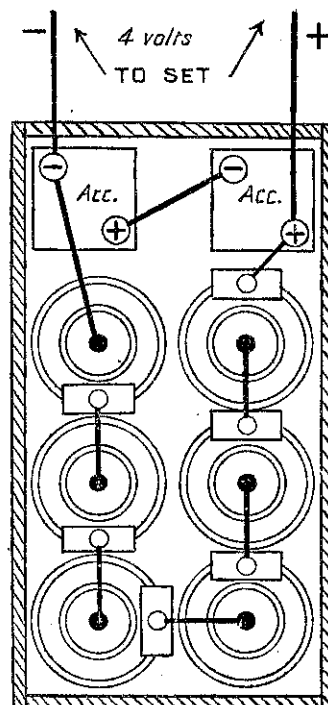
**A.:** If anything, it is lighter.

**"H.G.C."** (Wellington) wants to know where he can obtain particulars of a short-wave adaptor.

**A.:** The 1929 Radio Listeners Guide contains an excellent one, but omit the 1mf. by-pass condenser.

**"F.C."** (Bay of Islands) wants to improve daylight reception and wants to know if he can use a UX245 valve for this purpose.

**A.:** We are afraid you cannot. The UX245 is in reality an A.C. valve. It requires a heavy filament current which would ruin your accumulator in very little time. Furthermore, you have not the requisite "B" voltage, and if you had you would probably be disappointed if you wished to strengthen your reception. Although this valve has greater amplification than most super-power valves, yet its main func-



A 4-volt. Daniell cell charger with two small accumulators in series.

nearly as possible to cover their respective rods. The copper rod (positive) rests in the blue-stone solution and the zinc rod in the porous pot. Connect eight of these in series, and the resultant voltage should be about 8.5 or slightly more. By connecting in series, one negative rod is connected to the neighbouring positive and the positive of the battery so built up, is connected to the negative of the accumulator. This primary battery will need attention regularly. Fresh blue-stone must

## THE RADIO BOOKSHOP

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- "Practical Radio Construction and Repairing" (Moyer and Wostrel) ... 16/-
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  - "Radio Trouble Finder" ("Radio News") ... 3/-
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tion is to handle great amounts of volume.

**"PUZZLED"** (Petone) has a six-valve factory-built receiver, and has been troubled of late by loud howls which appear all round the dial. A dealer replaced the valves and later told him to adjust the neutralising condenser.

A.: The agent should not have advised you to interfere with the set. Neutralising, especially when valves other than those recommended by the manufacturers are used, is the job of a service man. It appears that your set is not neutralised, and we advise you strongly not to interfere further with the receiver, but to call up the man who replaced the valves, and to neutralise the set, as he should have done when the valves were replaced.

2. There is a buzzing which ceases when the aerial is removed.

A.: This appears to be outside interference which you cannot control.

**"SHORT-WAVE"** (Temuka) can get only 2ME on his adapted short-wave receiver, and the lower ends of the dial are greatly out of step.

A.: Put a midget condenser in the aerial and increase the detector voltage to 45 or more.

**"W.A.P."** (Wellington) asks for a circuit to suit commercial coils.

A.: It is not our practice to supply circuits. You should have obtained one from the dealer who sold you the tuner. But in this case, we are making an exception, and are sending you one.

2. I have a 5-valve neutrodyne the audio valves of which become warm.

A.: This is not particularly alarming, but try increasing the grid bias battery on the power and first audio stages.

**"R.W.T."** (Foxton) wants to know the life of three "A" batteries (dry cells) supplying 2 amp.

A.: About 200 hours, if used intermittently.

2. Could I use wire such as that enclosed for an R.F. choke?—Yes.

**"J.W."** (Napier) has a five-valve battery set with a horn speaker, and would like to know if he could use one that would give better tone, say the Dynamic.

A.: Yes, he could use a battery model dynamic which draws its field supply from a six-volt accumulator or an inductor dynamic speaker which does not require field supply.

**"NO SIGNALS"** (Wellington) has a Round-the-World Two which will go in one locality but not in another. The "A" battery shows five volts.

A.: Your "A" battery is flat and this is probably the reason you are not getting the outside stations. Other than this, the aerial and earth equipment may be at fault.

**"G.M."** (Tikitiki) wishes to change his three-volt valves to six-volt, and asks:

1. Would this mean better average reception?

A.: In all probability, yes.

2. Would the set need re-wiring?

A.: No. If any of the resistances heat up they should be shorted out.

3. What make of valves would you recommend?

A.: As your set is American, use Radiotron 221 for all stages except the last, where any medium power valve,

such as Radiotron 112, Mullard 256, Philips 509, or Cossor Stentor.

4. Name a make of a reliable accumulator.

A.: Standard makes are advertised in the "Radio Record." We cannot advise any one specifically as they are all good.

5. Would the battery connections be the same as for dry "A" batteries.—Yes.

**"V.A.S."** (Khandallah) has a short-wave set and gets Wellington's harmonics on all coils except the bottom pair, which will not oscillate. Can

issue dated April 12, 1929, we described a combination model of a 1-valve and crystal set which can be used on the local station as a crystal and amplifier, or as a 1-valve receiver.

**"A.R.M."** (Auckland) has constructed a power pack and can only get 180 volts at 60 mills., although it was designed for 250 volts.

A.: Probably the air gap in the smoothing choke will have something to do with your trouble. The correct size of the gap is of considerable importance, when much current is flowing. The width of the gap should not be excessive, for the necessary inductance

to convert "Round the World Two" into a short-wave adaptor.

A.: In 1929 "Guide" we described fairly fully how to connect the adaptor to the set. Take an old valve base and solder wires into the two filaments and the plate prongs. These are then connected to the adaptor as follows: Filament + of adaptor to the prong that will go into the + side of the detector socket. The plate connection comes from P of the transformer in the complete set; thus the plate of the detector of the original set is connected with the plate of the adaptor. The audio stages are omitted.

## Erecting an Efficient Aerial

### A Reader's Experience

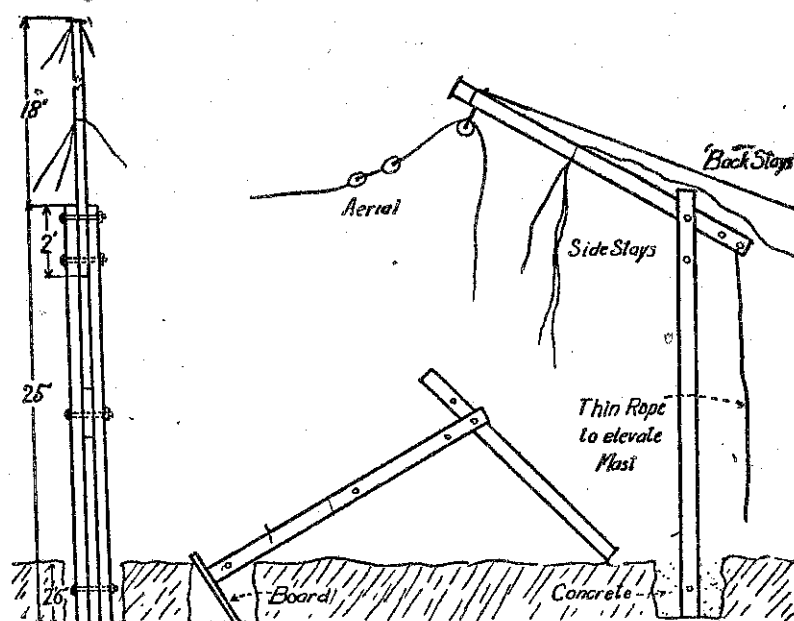
MANY readers have professed themselves interested in an article (appearing on page 28 of our issue of May 23), describing a listener's experiences in erecting an efficient aerial. In answer to many requests we are publishing the accompanying diagrams, which, when studied in conjunction with the article, (reproduced below) are self-explanatory.

**"YOUR** articles on wireless aerials were most interesting and instructive. Permit me to give my experience in making and erecting mine. The masts are made of oregon pine, 3in. by 2in. Three lengths, each 25ft. long, are required, and can be used either rough or smooth. Before erection they require at least two good coats of paint. Two pieces, each 2ft. 6in. long, are cut from one of the 25ft. lengths.

These are fastened between the two long lengths, with half-inch bolts and nails. One piece is placed at the end and the second piece about about the middle of the long lengths. The end of the remaining long lengths has two bolt holes, drilled to correspond with similar holes through the top of the bottom section of the mast. The top-mast, with pulley for aerial, back stay, and side stays attached, is now loosely bolted through one of the aforesaid holes in the lower mast, which is now ready for erecting.

Owing to its comparatively short length, viz., 25ft., the lower portion is easily erected. A board placed at one side of the hole, for the foot of the mast to rest against, will prevent it sticking into the earth, as the mast is raised. When this operation is completed, the hole can be filled with concrete. The topmast will have its lower end sticking up at an angle.

By means of a strong thin line, or wire, previously attached, it is an easy matter to elevate the top half until a strain can be placed on it by means of the back stay. Just before it reaches the extreme vertical position, a ladder can be placed against the lower section, and the line removed. A further haul on the back stay brings the lower bolt-hole in line, and with the insertion, and tightening up, of the bolts, the job is done. All that remains now is to anchor the back and side stays, and haul up the aerial. The above idea is cheap, easy to carry out, and will stand any amount of wind. I have found three side stays ample, but more can be added if desired.



An improved aerial mast which has the advantage of being able to be lowered without difficulty. See description in fourth column.

this be cured? The aerial is 110ft. long and 30ft. high.

A.: The aerial is too long for ultra short-wave reception. Put a midget condenser in the aerial or increase the number of turns on the tickler.

2. I was disappointed that you have not included the amateur Australian shortwave stations in the 1930 "Guide."

A.: It would have taken far more space than was justified. They can be obtained from "Amateur Radio," obtainable from Te Aro Book Stores, Wellington.

**"W.S."** (Whangarei) has built up an adaptation of the silk diaphragm speaker, but has met with very little success. The frame is circular, 6 inches wide, made by gluing segments of rimu together so as to form a cylinder  $\frac{3}{4}$ in. thick. The resulting tone was thin and empty.

A.: The speaker as described goes perfectly, and when adaptations are made like this there are so many chances of failure. Your best plan is to construct the speaker as it was described and you can be assured of good results. Are you sure there is not too much tension on the reed. This frequently causes trouble, the solution being to have the reed lengthened by a tapped rod.

**"L.R.J."** (Wellington) has found it difficult to obtain a circuit of a 1-valve receiver.

A.: We do not encourage the construction of 1-valve sets, because they can be a great annoyance to everyone within a mile or two. However, in our

could not be obtained to build up a sufficient reactance voltage to prevent fluctuation. On the other hand, if the width of the gap is insufficient, the coil will become saturated, and a large degree of variation results in a reduction of the filtering action of the choke, and consequently allowing a fluctuation in the voltage to the plates of the valves.

2. I am allowing 50 volts drop in the valve, and about 15 in the choke. Is this correct?

A.: Voltage drop in the valve is greater than you have reckoned. BH equals 90, BA equals 45, B equals 140. The maximum anode voltage for BH valves should not exceed 350 volts per side. You should be getting, if you have provided 350 volts on either side of the centre tap, 250 volts at 60 mills. The resistance of the choke coil is about 500 ohms.

**"E.L.W."** (Auckland) asks if the 6R would be a good unit for the silk diaphragm speaker.—Yes.

2. Would the 2ft. box baffle be better than the above?

A.: Depends upon the construction, but there is really very little difference between them.

3. Would either of the above combinations be satisfactory on 4-valve Hammarlund Roberts? All 201A's with 90 volts "B"?

A.: Yes; but we advise you to use a semi power valve instead of 201A in the last stage.

**"S.W. Adaptor"** (Wanganui) asks what modifications are necessary

# Loftin-White Amplifier

## Simplicity, Power, Economy.



GOOD quality resistances should be used throughout, so that no trouble is experienced from noise caused by partial breakdown. Wire-wound resistors should be used for all in the circuit from point A to B—because this part of the voltage divider carries the whole of the 30 mills. plate current of the 245 valve. For the 25,000 and 100,000 carborundum resistors would be suitable, as only about 1 mill. passes through these.

According to the voltage delivered by the power-pack, so must the total value of resistance between point A and "B" be regulated. In ordinary amplifiers the highest "B" voltage is fed to the plate of the last valve without any break-down resistance, but in this case the plate of the 245 is to receive a full 250 volts with a resistance of several thousand ohms in the circuit. For practical purposes we may assume that 32 mills. will pass through the resistance between point A and B—so if the total resistance is 6100 ohms there will be a drop of 183 volts across it.

The value of this series of resistance must not be too low, or the screen and bias voltages may not be conveniently obtained, so it is therefore necessary to provide a high initial voltage from the transformer, reducing it by suitable resistance. The initial voltage of the transformer secondaries will be 400 on each side, which will be increased in the rectifier and filter system to about 433 volts, and subtracting from this the 250 volts dropped in the 245 valve,

there remains 183 volts to be dropped in the resistances.

The value of these resistances should be kept as nearly as possible, but a few ohms either way is immaterial. The total of 6100 ohms may be made up of wire-wound resistances in any manner that suits the constructor, so long as provision is made for tapping at the points shown. Flat resistance strips are procurable, of various values, and might be conveniently tapped by means of a small clip made of springy brass. Two strips of 425 and 5500 ohms respectively, with a 200-ohm potentiometer in series between them, would answer well. The resistance should be of 5-watt rating. The position of the screen tapping at Y is distant from Z one-seventh of the length of the 5500-ohm winding.

Different resistance values would have to be used for any last valve passing more or less than about 30 mills. in the plate circuit, and in addition other changes have to be made to obtain correct grid bias.

Plain flat resistances are easy to use, because if over the required value a thin wire connection may be twisted round at any point to reduce to the correct value. Tappings may be taken out at any point in the same way. Constructors will soon devise a means of mounting these so that they are insulated from the metal chassis, by the use of small pieces of ebonite and 1-8in.

By "MEGOHM"

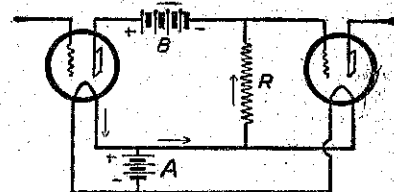
Part 2

bolts. Clips can be made by bending double a small strip of brass and soldering a lead to the bend.

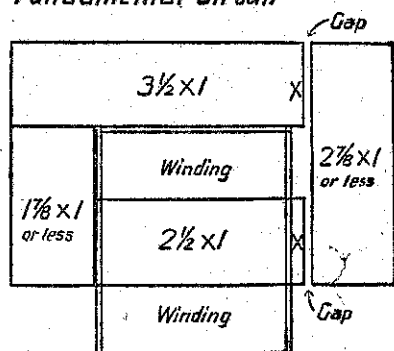
### The Power Pack.

THE power pack consists of a transformer, smoothing choke, two 2 mfd. condensers and one 1 mfd., all of 800 volts test. Core material may be purchased ready cut to size for the transformer, the strips being  $\frac{3}{16}$  in. wide, built to  $1\frac{1}{2}$  in. thick, which is the equivalent of a core slightly over 1 in. square. The window in this stock size is  $2\frac{1}{2}$  in. x  $1\frac{1}{2}$  in., so the spool must be barely  $2\frac{1}{2}$  in. long outside, and the ends  $3\frac{1}{2}$  x  $2\frac{1}{2}$  x  $5\frac{1}{2}$  in. Strips of thin brown or other strong paper must be cut the inside width of spool and must be placed between each layer of wire, securing the small overlap with secotine. Do not waste space with broad overlaps.

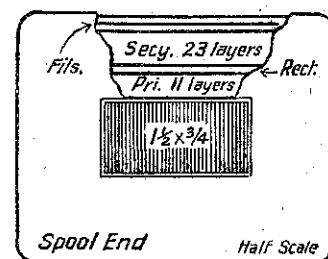
The primary turns for this transformer will be 1700 turns of 30 s.w.g. enamelled wire for 230 volts 50 cycles, and 6080 turns for the secondary, using 36 s.w.g. enamelled wire, in one continuous coil, tapped at the 3040th turn. The winding must be close and even, so that it does not occupy too much



Fundamental Circuit



Smoothing Choke



Ready-cut Transformer

Paper between layers must not exceed 3-32 in. for 24 sheets thickness.

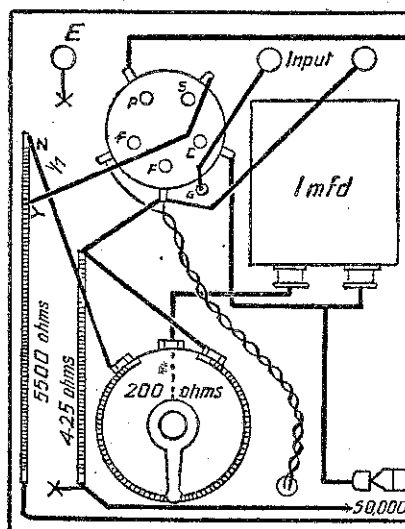
### An Alternative Transformer.

THOSE who wish to cut the stallo themselves will use 1 in., of which two dozen 3 ft. lengths will be required. The long piece should be  $4\frac{1}{2}$  in., which gives a window  $3\frac{1}{2}$  in. long. The other dimension of the window will be made to suit the winding, but should not exceed one inch. The primary turns will be 1850, all wire gauges as in the transformer described above. The secondary turns will be 6700 tapped at 3350. Filaments 2.5 volts 24 turns, 5 volts 47 turns.

On page 54 and following of the "Listeners' Guide" will be found many helpful hints on transformer and choke construction.

### The Smoothing Choke.

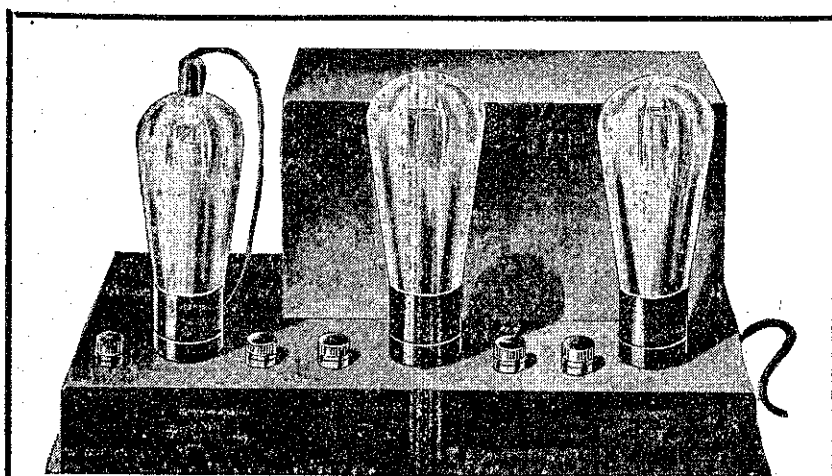
ONLY one choke is required, but two features are introduced into it, firstly, the shape of the core, and, secondly, the provision of a tap at the centre, so that a smoothing condenser may be connected up. The core is 1 in. square, and spool ends  $2\frac{1}{2}$  x  $5\frac{1}{2}$  in. square, to contain 7000 turns of 32 enamelled wire, with a d.c. resistance of 367 ohms, giving a drop of only 18 volts when passing 50 mills. Outside length of spool  $2\frac{1}{2}$  in. The tap is taken out at the 3500th turn or thereabouts. This is a refinement that may be used on any eliminator. The inductance of this choke may be varied from 35 to nearly 50 henries according to the width of the gap, which is increased for increased current, which lowers the inductance. One-sixteenth inch is the minimum gap to use each side for about 40 mills. Cardboard is used to fill the gaps. Note that



space, as the window size is fixed where ready-cut stallo is used.

For technical reasons the two amplifying valves cannot be heated from one winding, so a separate winding of 18 d.c.c. is to be provided for each, 21 turns for the 224 and 245, and 42 turns for the 230.

This is a 50-watt transformer, and the amplifier consumes 30 watts, so 20 watts are available for r.f. or detector valves if required. Extra valves should not be heated from the amplifier windings, but two 227's may be run off one 18 winding of 22 turns. There is not room for many extra windings on the stock size mentioned, and care must be taken not to exceed the size of the window. If space is conserved, there should be room for two layers of 18 outside the secondaries.



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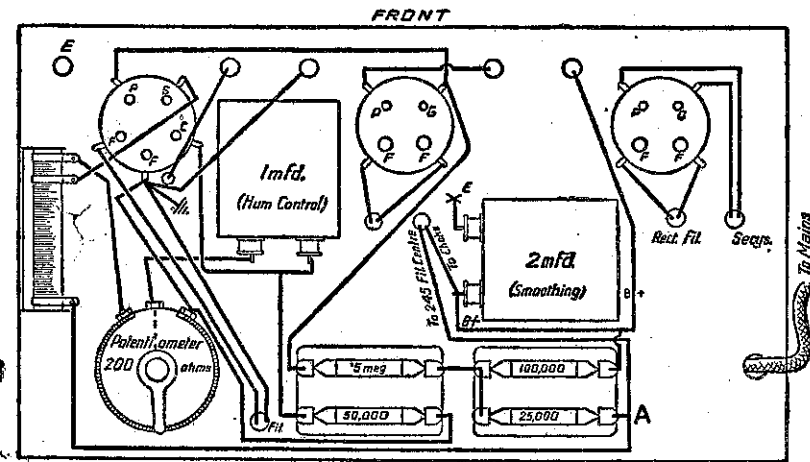
Write for list : **F. J. W. Fear & Co.,**

WILLIS STREET, WELLINGTON

in this pattern of choke the ends of the U must project beyond the spool at XX rather more than 1-8in., so that the wooden clamps may grip both the ends of the U and the cross-piece. Two dozen 3ft. lengths of 1in. stalloil will make the choke, for which four sizes are cut, 3 $\frac{1}{2}$ , 2 $\frac{1}{2}$ , 2 7-8 and 1 7-8in., but note that the two latter may be shortened, as a  $\frac{1}{2}$ in. gap or a shade less may be found to accommodate the winding.

ode is similarly by-passed, because a bias resistor of 3000 ohms, more or less, is placed in the cathode connection to ground.

MANY constructors will be using one or two r.f. stages with 227 type valves, which draw an average of 3 mls. each. For these the breakdown resistance for plate current will be 90 volts, 2 valves 50,000 ohms, 3 valves 35,000 ohms, 4 valves 26,000 ohms, and



Only the smoothing condensers are required to complete the power-pack. They should be of 800 volts test.

A fuse must be provided in each lead from the mains, and to protect the secondaries from accidental short, it is wise to provide fuses for them also as shown in the diagram. Strips of bright tinfoil may be used for fuses, cut very fine for the high-tension.

#### General.

IT must be understood that any power-pack giving 400 volts and the necessary filament and heater currents can be used with this amplifier. A by-pass condenser of  $\frac{1}{2}$  microfarad capacity is placed across the outer or left-hand end of the lead and earth. Screen voltage is obtained in the same way, the outer end of lead, and branches to each screen being by-passed with a  $\frac{1}{2}$  mfd. Each valve cath-

for 60 volts, 2 valves, 58,000 ohms, 3 valves 38,000 ohms, wire-wound resistances, 5-watt rating.

Where demands for the r.f. stages of a receiver exceed two or three valves at the most, a large power-pack than that specified should be used, including a  $\frac{1}{2}$ in. core transformer.

If possible, test with a milliammeter to make sure that the plate of the 245 is drawing exactly 30 milliamperes.

If a crystal set is used for local reception, it should be coupled to the amplifier through a high-grade audio transformer of the A.F.3 type, the crystal set connected to the primary. This will give considerably more volume than the crystal output direct without transformer. A cheap transformer should not be used, because that would mean sacrificing some of the quality gained by the amplifier system.

## Radio Weather

(Continued from page 32.)

cloud itself. It will then branch upwards from an origin in the positive region, or from the positive area to the ground. Then it will branch downwards, or from the ground to the negative area in the rear of the cloud, when it will branch upwards.

The discharge will have the appearance of a river with its mouth on the positive charge. After a discharge, the field will gradually be rebuilt until the sparking potential is again reached. Subsequent discharges will tend to follow the old path which will remain conducting. Gradually, however, it will be broken up and swept away by the wind. The third type of discharge will be infrequent, but violent.

It should be said that C. T. R. Wilson and his followers assign an opposite polarity to thunderstorms to that claimed by Simpson. Recent papers on observations on thunderstorms in South Africa by B. F. T. Schonland appear

to support C. T. R. Wilson's viewpoint very strongly.

C. T. R. Wilson has shown that the quantity of electricity involved in a lightning discharge is approximately from 10 to 50 coulombs. The total potential difference is of the order of 1,000,000,000 volts. That is, the potential difference between the centres of the positive and negative charges. It is almost certain that thunderstorms are the origin of atmospherics, since it does not seem possible for field changes of sufficient intensity to be produced in any other way.

In our next issue Dr. Kidson will describe how radio is affected by weather.

THE best arrangement for earthing an aerial is one which completely disconnects the receiver at the same time.

IN the absence of crocodile clip quite a good variable contact may be made with little "bulldog" clips (supplied by stationers), or by small paper clips.

## Short-wave News

### A German Short-wave Shipping Service.

AS a result of the successful experiments which have recently been conducted from the coastal wireless station at Ouxhaven with fishing vessels and steamers plying between sea-side resorts, a new station with a more powerful transmitter is to be erected to serve the German shipping in the North Sea. The coastal station at Norddeich is installing a short-wave transmitter for radio telephony. All the larger German passenger steamers are equipped with short-wave receiving apparatus and telephonic com-

munication with them should become possible in the course of the year.

### Unfavourable Conditions.

RECEPTION continues to be very poor during the early hours. Just before daylight a blanketing effect is noticed on all signals, morse and telephony. Zeesen, the German high-power transmitter, has lost its punch; 5SW is very weak till it is time to leave home; GBP and 2ME on duplex telephony appear to carry on quite well between themselves, but are not heard too well here. The English station comes in better than the Australian.

# RADIO DIRECTORY

## What to Buy and Where

### CITIES

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| <b>ALTONA &amp; HAMMARLUND-ROBERTS SETS.</b>   | <b>Johns, Ltd.</b><br>Chancery Street, Auckland.  |
| <b>BURGESS RADIO BATTERIES,</b>  | <b>All Radio Dealers.</b>   |
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| <b>CROSLEY RADIO</b> .....   | <b>Abel, Smeeton, Ltd.,</b><br>27-29 Customs St. E., Auckland.                                    |
| <b>KING RADIO RECEIVERS</b> ...  | <b>F. J. W. Fear &amp; Co.,</b><br>63 Willis Street, Wellington.                                  |
| <b>LISSEN RADIO PARTS AND KITS</b> .....   | <b>All Radio Dealers.</b>   |
| <b>MAJESTIC RADIO RECEIVERS</b>  | <b>Kirkcaldie &amp; Stains,</b><br>Wellington Agents, Lambton Quay.                               |
| <b>MULLARD VALVES</b> .....  | <b>All Radio Dealers.</b>   |
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| <b>RADIOLA RECEIVERS</b> and <b>Expert Radiola Service.</b>                                    | <b>Farmers' Trading Co., Ltd.,</b><br>Hobson Street, Auckland.                                    |
| <b>STEINITE RADIO</b> .....  | <b>G. G. Macquarrie, Ltd.,</b><br>120 Willis St., Wellington.                                     |

### COUNTRY TOWNS

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| <b>CROSLEY SETS</b> .....                               | <b>Abel, Smeeton, Ltd. Rep.: C. Buscoe,</b><br>409 Devon Street, New Plymouth. |
| <b>CROSLEY SETS</b> .....                               | <b>Dobbs Bros.,</b><br>176-8 The Avenue, Wanganui.                             |
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J. M. BINGHAM Discusses

# The Phenomenon of Fading and Its Relationship to Distortion



J. M. BINGHAM

Chief Engineer, Radio Broadcasting Company.

—S. P. Andrew.



HE range of a broadcasting station is entirely governed by the medium separating the transmitter from the receiver. It is not necessarily air, but for want of a better name, theorists give it the term, "ether." When a broadcasting station is "on the air" it is causing vibrations or waves in this ether, which travels outward in all

directions. These waves vary in intensity in accordance with the speech or music entering the microphone at the studio, and when picked up by the receiving aerial, cause corresponding variations to affect the receiving mechanism, thereby reproducing the original performance from the loudspeaker.

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

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

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

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

When night falls, however, conditions change. The lower and comparatively dense atmosphere loses the conducting property which it had when the sun's rays were present, but the upper or rarefied atmosphere still retains a certain amount of ionisation.

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

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

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

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

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

However, "b" striking at a somewhat greater angle is reflected back to earth again at B. It will thus be seen that for every broadcasting station there is a zone surrounding the station from X to B, where no reflected wave is received at any time. This zone varies considerably with the wavelength used, and in general for broadcast purposes may be taken at about 80 miles.

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

It can readily be understood, therefore, that from X to B reception is practically the same for both day or night, as it is the ground wave only that is effective.

From B, where the reflected wave begins to be in evidence at night, to D, where the ground wave ceases to be effective, is the zone where distortion fading will be in evidence, as this is the area in where both components are received.

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

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

(Continued on page 40.)

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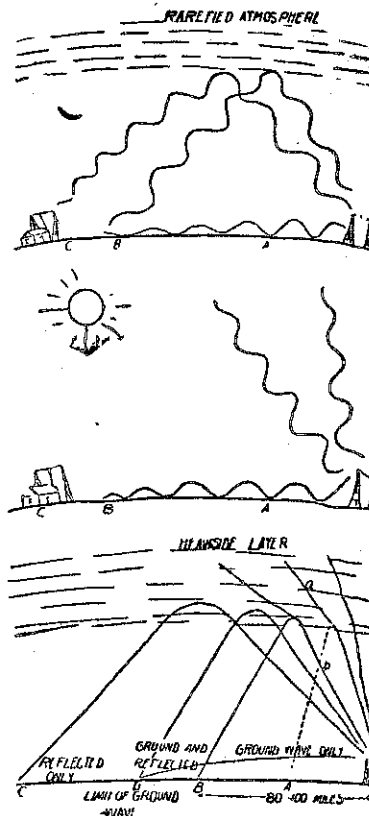
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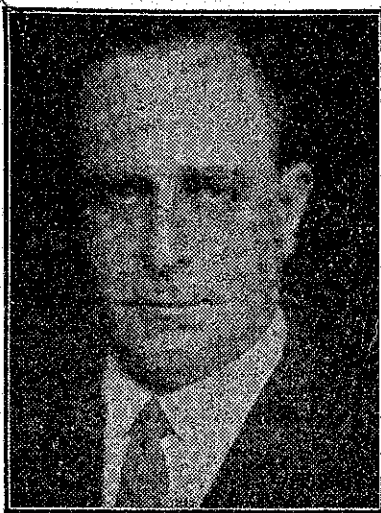


him, he is now getting signals by reflection.

"B" is in an unfortunate position, however. In the daytime all was well. He had a straight-out wave to receive from one direction only, but night has fallen and his receiving set is called upon to accommodate two portions of the same signals which have travelled different paths.

If they arrive in their proper relationship, reception will probably be all right, but if from any cause the reflected wave becomes disturbed, the two portions will tend to oppose each other and distortion accompanied by fading will result.





DR. KIDSON,  
Government Meteorologist.  
—S. P. Andrew, photo.

# The Climate of Wireless

## What Constitutes Radio Weather

Discussed by Dr. KIDSON

### Reports by Radio.

IN Europe each country at present collects information from within its own boundaries, and then transmits it by wireless to all other countries. At the same time, 1000 selected ships will also issue regular reports. All this is done according to a pre-arranged schedule, and several times a day. The messages are in code, not because the meteorologist prefers code to plain language, but because some sort of shorthand is necessary if the huge volume of traffic is to be handled. So complete is the European organisation at present that the London Meteorological Office issues daily weather charts for the whole Northern Hemisphere.

But the use of wireless is far more important in the dissemination of information by the meteorologist than in the collection of it for his use. In both cases, the great advantage of a wireless is that a single issue can be addressed to thousands of listeners. It can be picked up by moving stations, whether in trains or motors, on land, on ships at sea, or on aircraft. Navigation on organised air routes is entirely dependent on reports of existing conditions and expected changes. These are provided at all main aero-

The following is a simple instance of the way in which the information can be of use. In making land a vessel must make quite certain of its position. It does this by picking up some known headland or lighthouse, etc. Now, suppose a ship by continuing at full speed can just make port early on a certain morning, with a minimum of time left to land passengers and mails so that both could connect with desired trains. Assume also, that as it approaches land during the night the weather becomes thick. It takes a bearing on the headland it wishes to make by a radio-direction finder, but owing to possible deflection effects, the position it so obtains may be a few miles in error, and in the thick weather it is dangerous to proceed. Speed has to be lowered, the ship arrives late, and for many people a day is wasted. The actual financial loss is considerable. Supposing, however, that the captain gets

word that, although the weather is thick where he is, the visibility at the lighthouse for which he is heading extends for six miles. Then he can confidently carry on and arrive at the desired time.

A recent development has been the initiation of the transmission of weather reports and weather charts in facsimile by wireless. The development is as yet only in its infancy, but when complete it will prove a great boon. The time required to transmit information will be enormously reduced. I hope that before long it will be possible to transmit reports and charts by pictograph either telegraphically or by wireless from Wellington to other parts of New Zealand.

There is another and special way in which wireless may, before long, become of great assistance to meteorologists, and that is by giving them information regarding the position and

HERE are two separate aspects of the relationship between weather and wireless—namely: (a) The assistance given by radio communication meteorology in the collection and dissemination of information. (b) The dependence of communication by radio on conditions in the atmosphere.

The first of these will be briefly dealt with in the following. Wireless is coming increasingly into use as a means of collecting the information by means of which the meteorologist obtains a bird's-eye view of the weather over the area in which he is interested. It is on this information that he bases

Though transport has improved immensely of recent years, man is still to a large extent at the mercy of the elements. This is especially true of travel by sea and air. Though unfavourable weather conditions cannot be obviated, they can be avoided if their presence is known to those in ships or aeroplanes a few hours beforehand. And this is where meteorological observations are so effective. The value of such research, however, would be largely nullified if there were no means of disseminating the information obtained without delay. The last condition is important, for it is obvious that the closer the change in atmospheric conditions, the more accurate will be the forecast. This is where radio plays its indispensable part. The following paper, read by Dr. Kidson before the Technological Section of the Philosophical Society recently, explains how wireless is so utilised. A further explanation of the phenomenon of thunderstorms and their consequent effect on reception will prove interesting to all listeners, in particular to those owning shortwave sets.

his forecast of future developments, and which he in turn passes on to the public.

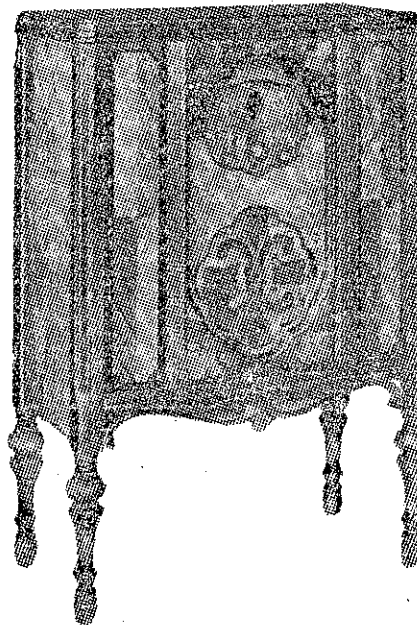
When it is a question of collecting reports to one centre from land stations, as, for instance, in the collection of New Zealand reports in Wellington, telegraph and cable are quite efficient for the purpose, but when it comes to passing on one country's information to others, the congestion on land lines and cables soon becomes too great, and wireless becomes of enormous assistance. Furthermore, radio is the only means of gathering information from ships at sea.

dromes, and transmitted to pilots in the air by wireless telephony. On airships not only are the ground reports received, but weather charts are drawn on the ship itself, and every movement is adapted to the weather situation.

### Weather Forecasts for Shipping.

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movement of those discontinuities in the atmosphere called "fronts" with which many of our weather changes are associated. Thunderstorms, also, will probably be located by wireless,

### The "Climate of Wireless."

WE must pass on to the second aspect of our subject, namely, the atmospheric conditions affecting wireless transmission.

When intercommunication over long distance by wireless had been successfully achieved, it was soon found that the rate of attenuation of signals depended on many factors such as the type of intervening surface, time of day, time of year, wavelength, and so on. Superimposed on these rather regular features, which Watson Watt has called the "climate of wireless," were found fluctuations of a rapid and more erratic nature which may be likened to weather. Prominent among these are the phenomena of fading.

Though these phenomena have been a source of trouble to the wireless engineer, they offer a very promising means of learning something of the nature and condition of the atmosphere at high levels and especially of the electricity of the atmosphere.

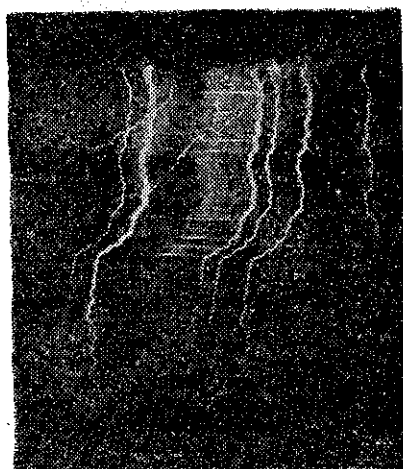
In order to understand what is known of the climate and weather of wireless, one must remember that the energy from the transmitting station travels to the distant receiver along two different routes. The first is that followed by the direct wave, which travels along the surface, and the second that which is mainly in the upper atmosphere and is traversed by the indirect wave.

### Atmospheric Electricity.

IT is necessary, also, to have some idea of the electricity of the atmosphere. Unfortunately, neither from the theoretical nor the observational view have we an adequate knowledge of atmospheric electricity. Indeed, one of the most acute of the present needs in geophysics is for active research in this subject. Its bearings on meteorology, radio-telegraphy and ter-

restrial magnetism are both varied and important.

It has long been known that the atmosphere is normally in a state of



A photograph of a thunderstorm showing the length of the flashes of lightning.

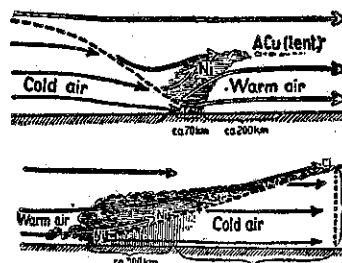
electrical stress, there being an electric force directed downwards. The potential gradient due to this force, near the surface, is generally about 100 to 150 volts per metre. To maintain this gradient, the earth must be charged with 30,000 electrostatic units of negative electricity per sq. cm., or one-thousandth of a coulomb per sq. km.

The potential gradient is continually varying, the variations being to a large extent accounted for by irregular changes in the meteorological conditions. The loading of the gaseous ions with moisture, the consequent reduction of their mobility and hence the reduction of the conductivity of the atmosphere, is the chief means by which these variations are effected. The effect, as a rule, is only local and the total potential difference between top and bottom of the atmosphere and the air-earth current are practically unchanged. Consequently, as the mobility of the ions increases or decreases,

so the potential gradient decreases or increases. Dust and smoke particles are even more effective than moisture in decreasing the mobility of the ions. Heavy and slow-moving ions, though taking small part in atmospheric currents, may possibly have important effects in absorbing or deflecting radio waves.

There is a decrease in the potential gradient as the height above ground increases. Therefore, the air must be positively charged. At about 10 km. the potential gradient probably vanishes so that the charge on the air below that must be about equal and opposite to that on the earth. The effect described is due to the increasing conductivity of the atmosphere with height. It is probable that the electrical resistance of the lowest 5 km. exceeds that of all the air above it, and that at 50 km. the conductivity is very high. The difference of potential between the earth and the upper conducting layer is of the order of 1,000,000 volts.

There are various more or less regular variations in potential gradient which can be deduced statistically, but it is difficult to say to what extent they are merely local and due to meteorological conditions, the prevalence of fires, dust, etc. One very interesting type of variation has, however, been brought out by observations at



Meteorological conditions obtaining during a thunderstorm. Upper diagram, a cold frontal wind, and lower, a warm frontal wind.

sea and in polar regions. This is a diurnal variation of which the phase is the same at all parts of the world. It may be due to a diurnal variation in the frequency of thunderstorms; to the fact that the magnetic poles are not at the ends of the geographical axis of the earth, and hence there may be some consequent effect on ionisation by solar radiation; or to some unknown cause.

In wet weather, and especially during thunderstorms, conditions are very different from those we have described. There are large fluctuations in potential gradient, both positive and negative values occurring. C. T. R. Wilson has made measurements of the electric field in the neighbourhood of thunderstorms. He finds a preponderance of negative gradients, and at a distance of 3 km. or 4 km. from the storm the gradient may be as high as 10,000 volts per metres. The lightning discharge usually restores the field to a more normal value.

### The Phenomena of Thunderstorms.

NOW, the thunderstorm is a phenomena of considerable importance to those interested in wireless communication, and it will be worth while considering it in some detail. The only complete theory of the thunderstorm is that of Dr. G. C. Simpson, Director of the London Meteorological Office.

First, we must understand the meteorological conditions in a thunderstorm. Here the important point is

that warm air flows in under the front of the approaching storm, and then upwards into it, being wedged up by cold air from behind. Condensation is produced through the cooling of the air owing to its pressure decreasing as it rises. In the forward part of the cloud there is a space in which the ascending current is so rigid that no raindrop can fall through it to the ground. We know that this is the case because, firstly, if conditions were otherwise, hailstorms could not be formed, and secondly, other evidence may be produced in support of this theory. The water drops rise and fall above this region in the ascending currents, and grow in size through continued condensation until they reach a diameter of 5mm. when they become unstable and break up, sending off smaller droplets. This process is repeated continuously, but many drops are continually reaching the boundaries of the violent upward current, and are thrown out and fall as rain.

Simpson experimented with water drops under the conditions described, and he found that the water drops became positively charged, i.e., they contained positive ions, while the air was negatively charged or contained an excess of negative ions. In the free air the negative ions would soon be caught by the small droplets or cloud particles, and carried upward with the ascending currents. The large drops will thus be positively and the small negatively charged. Observations of the charges carried by rain are in accordance with Simpson's theory.

In the region of the thunderstorm where the ascending currents exceed 8 m/s, there is no accumulation of electricity. Above it there is an accumulation of large drops, which are continually breaking up, and therefore attain a high positive charge. The negative charge is carried by smaller drops to the more distant portions of the cloud.

The effect would be similar wherever rain is falling, but it requires the ascending currents of 8 m/s to produce electrical fields of sufficient magnitude to cause lightning.

It will be clear, therefore, that about the active region of rapid ascending currents, strong electrical fields will develop, the upper portion of the cloud being negatively and the lower positively charged. For sparking to take place it is necessary for the field in some part to reach  $3 \times 10^6$  volts per metre.

According to Simpson, and I have not seen his ideas disputed, the mechanism of the discharge is as follows:—When the field has reached the limiting value there is a sudden production of ionisation. A highly conductive channel is thus produced, and the negative ions rush to the seat of the positive charge, and annul a large part of it. A strong field is left, however, at the further end of the conducting channel, that near the negative charge, and the ionising process continues there. The conducting channel extends towards the negatively charged area, and, owing to irregularities in the field, it branches, the branches finally dying out.

The discharge, therefore, is due almost entirely to the movement of electrons, the positive ions being too slow-moving in air to produce any large effect. The discharge may take place from the positively charged area to that with a negative charge within the cloud. (Continued on page 29.)

## A New Valve ! A Better Valve ! and it's a RADIOTRON ! ! !

The new UX221 is a valve the need for which has long been felt.

It means a big saving on your "A" battery, consuming only .06 amperes. It will fit in the place of the 201A valve without any alterations—but that is not all. Fit one and notice the improvement in volume and tone.

**THOS. BALLINGER & CO., Ltd.**  
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"Where the Quality Goods are Sold."

## Log for the Week.

Sunday, June 8.

At 2 p.m. W2XAD was R7. By 3 p.m. they were only just audible. W2XAF were not so strong at 2 p.m., being R4, but reached R8 by 3.30 p.m. Dance music during the last hour was heard from the New Kenmore Hotel, Albany. NRH, the champion low-power station, was R3 at 2.30 p.m., but too gurgly to be readable.

W3XAL was not readable volume till after 3 p.m., after which they increased rapidly. They closed at about 4.30 p.m. at R6-7. W2XE closed before they became strong enough to be clearly readable.

W9XF from being inaudible at 4.15 p.m. were R8 at 5 p.m. and continued at that till 6.30 p.m. KIXR were R3-4 at 8 p.m. and R8 after 9.30 p.m. Static spoilt reception. RA97 at R9 was swamped by severe static.

Tuesday, June 9.

UNTIL after 6.30 a.m. the air was silent except for one or two Morse stations. After this blanketing effect disappeared. Zeesen came in at R8. 2ME at R9 and GBP at R2 concluded their duplex at 7.30 p.m.

3UZ from 8.30 p.m. were R8 at times. Fading was very bad. ZL2XX, testing, were heard at good volume with gramophone records. Modulation was excellent. RA97 at 10 p.m. were R8-9. Static was medium.

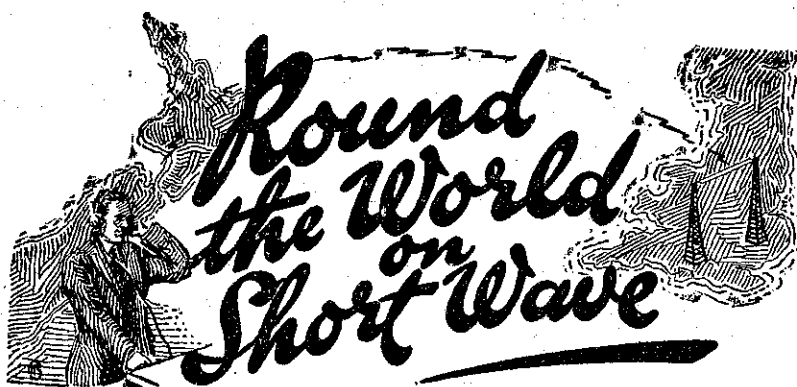
Tuesday, June 10.

EVERYTHING was dead again this morning. 5SW was not available. GBP at 6 a.m. was R5, while 2ME was not audible till 7 a.m. Zeesen was R7 at 6.30 a.m., but very gushy. KIXP was gushy with a noisy background, being R4 at 7.30 p.m. and R7 at 9.30 p.m. On about 30.7 metres at 7.40 p.m. a foreigner was calling "Allo," but a call could not be identified.

W2XAF were first heard at 9.45 p.m. playing records which came through at R9. Later they called 2ME, Sydney, who were too weak to be readable, in fact they could be heard better through 2XAF. RA97 for a change was free of static at R8-9.

Wednesday, June 11.

ZEESSEN was R7 at 6.15 a.m., quality being very poor. By 7 a.m. they were much better at R8. The 41.6



THIS page is conducted in the interests of shortwave enthusiasts. A weekly log comprising notes of reception and interesting topical events is contributed by Mr. F. W. Sellens, Northland, Wellington, but all listeners are invited to send in paragraphs of general interest.

## Stations Heard During Week Ending June 14.

ZL2XS, Wellington, 174 metres: Wednesday.  
RA97, Siberia, 70 metres: Each evening.  
W9XF, Chicago, 49.83 metres: Sunday and Saturday.  
W3XAL, New Jersey, 49.18 metres: Sunday and Saturday.  
W2XE, New York, 49.02 metres: Sunday and Saturday.  
? ? 43.6 metres (about): Saturday.  
? ? 41.6 metres (about): Wednesday and Saturday.  
3UZ, Melbourne, 32 metres: Monday.  
? Germany, 31.5 metres (about): Saturday.  
ZEESSEN, Germany, 31.38 metres: Each morning except Sun. and Thurs.  
W2XAF, Schenectady, 31.4 metres: Sun., Tues., and Sat.  
KIXR, Manila, 31.3 metres (about): Each evening except Monday.  
ZL2XX, Wellington, 31.5 metres (about): Monday and Wednesday.  
PCJ, Holland, 31.28 metres: Friday and Saturday.  
? ? 30.7 metres (about): Tuesday.  
NRH, Costa Rica, 30.5 metres: Sunday and Saturday.  
? ? 29.4 metres (about): Wednesday and Friday.  
? ? 28.7 metres (about): Saturday.  
VK2ME, Sydney, 28.5 metres: Daily.  
GBP, England, 27.7 metres: Daily.  
CJRX, Winnipeg, 25.6 metres: Saturday.  
5SW, England, 25.53 metres: Daily except Sunday and Monday.  
? ? 23.3 metres (about): Wednesday.  
W2XAD, Schenectady, 19.5 metres: Sunday.

metre station was just audible at 6.30 a.m. 5SW was not audible till 7 a.m., when they were very weak and gushy. Strength was R5 at 7.30 a.m.

On about 23.3 metres a man could be heard talking at 6.30 a.m., but was too weak to be readable. Music was heard later. Strength was about the same at 7.30 a.m. GBU at 7 a.m. was R6, talking to 2ME, who were not audible here.

On about 29.4 metres at 7.50 p.m., foreign talk was heard at R5, which continued till 8 p.m., when the station went off the air. ZL2XS were testing on 174 metres during the evening. On the 4th harmonic (43.5 metres) they were R9. Quality was good, but generator hum was strong. KIXR was R5 at 8.15 p.m. and R8 at 9.30 p.m. Signals were gushy.

RA97 were R9, but static was very bad. ZL2XX were excellent at maximum volume.

Thursday, June 12.

STATION GBP at 6.30 a.m. were R3-4; 2ME were just audible; 5SW was too weak to be readable at 6.30 a.m. They increased to R5 by 7.30 a.m.

Zeesen was not heard up till 7.30 a.m. KIXR was very gushy at R5 at 7.30 p.m., and about the same at 9.30 p.m. 2ME were R9 at 7.30 p.m. GBP was not readable.

RA97 were fairly clear of static at 10 p.m. News given in English was heard at 10.10 p.m. This included rela-

tions between the Soviet and Britain, Gandhi in India, etc.

Friday, June 13.

THIS morning was bad again. 5SW was still weak and gushy at 7.30 a.m., as was Zeesen. 2ME was weak, while GBP was not audible. PCJ was not worth while till nearly 7.30 a.m., when they were R8-9.

On about 20 metres at 8 p.m. a foreigner was talking at R4. 2ME and GBP at 7.50 p.m. were R9 and R4 respectively. KIXR was R8 at 9.30 p.m. with slight static. RA97 with news in English at 10 p.m. was almost smothered by static.

Saturday, June 14.

At 7.30 a.m. 5SW was R8 with a talk, which was too gushy to be readable. GBP and 2ME at 7.30 a.m. were R8-9 and R3. On 41.6 and 43.6 metres voices were just audible. The 31.5 metres German station was R3 at 7.30 a.m. Zeesen was quite good at 7.50 a.m., except for slight gush.

W3XAF was R7 at 2 p.m., increasing to R8 by 3 p.m. NR21 was just audible at 2 p.m., but not readable. CJRX was tuned-in at 2.15 p.m., when they were R5, but spoilt by a beam station. They concluded with the National Anthem at 2.30 p.m.

PCJ was gushy all through their transmission. R5 at 2 p.m., increasing to R8 at 4 p.m. W9XF from R1 at 3 p.m., increasing to R8 at 4 p.m. W3XAL was R5 at 3 p.m., reaching R8-9 by 4.30 p.m. W2XE was much weaker, only reaching R5.

2ME and GBP at 5 p.m. were R9 and R8 respectively. A lady was heard in Sydney talking to a person in Germany. On about 28.7 metres (just above 2ME) a foreigner was picked up at 6.15 p.m. Speech was very clear at R8-9. Twice "Hullo, 1, 2, 3, 4, 5," was said in English, but all other talk was, I think, German. They went off the air several times for a moment or two. The last I heard of them was about 6.45 p.m.

KIXR was R4 at 7.15 p.m. and R8-9 from 9.30 p.m. RA97 was R9 at 10.10 p.m. After reading news items in English, to-morrow's programme was given. This included: 21 o'clock (11.30 p.m. here), daily radio news in English; 22 o'clock, evening for the workers. Story, music, and song in Russian.

The call of RA15, Khabarovsk, on 70 metres, was given at the conclusion of the talk in English, with the invitation to listen to our "Red Banner" to-morrow at the same time.

A man followed with talk in Russian.

Radio Listeners' Guide, 1930 Edition.

Dealers and Booksellers 2/6, posted 2/9.  
P.O. Box 1082, Wellington.

Available Everywhere.

## FOR SALE OR EXCHANGE

The rate for small advertisements under this heading is 1/6 cash for 20 words, and twopence for every other word thereafter.

TWO-VALVE All-Wave Set complete, £6; this set has received 35 stations on broadcast band in last ten days.—"Broadcast," c/o "Radio Record."

"A. B. C." ELIMINATORS, with West- inghouse Rectifiers, make Battery Radio superior to most A.C. Radios. Quotations gladly given. Johns, Ltd., Chancery Street, Auckland.

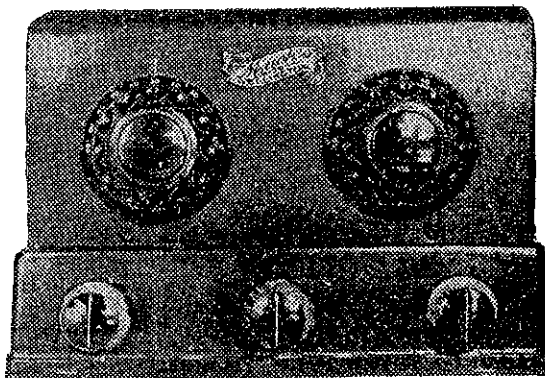
RADIO Catalogue sent on request.—Electric and Battery Radios, Speakers, Batteries, Valves, Motors, Pick-ups, etc. Royds-Howard Co., 553 Colombo Street, Christchurch.

MYSTERIOUS Pocket Lighter. What makes it light? 4/6. Two posted with Spark Pencil, 10/-. Agents wanted. Royds-Howard Co., Colombo Street, Christchurch.

## Be Prepared

For the coming Short-Wave Programmes which will soon be radiated from the leading countries of the world. No set will be complete unless it can receive Short-Wave Stations. This can be done successfully only with Mack's Short-Wave Addaphone.

Any signal that can be heard on the 'phone can be reproduced on the Speaker. So if your set is not a modern one, have it modernized by



Mack's Radio Service,

76 KENT TERRACE,  
Telephone 20-798. WELLINGTON.



## Electrical Manager Honoured

AT the West Australia dinner, held in London, on the King's Birthday, Sir Hugo Hirst was the guest of honour.

Still a comparatively young man, he is one of the most brilliant speakers that commerce has given to the world. He is well known in Australia, having toured through that country recently as a member of the special Economic Commission, that was set up to examine into the finances of the Commonwealth, with particular attention to migration problems.

He is a Jew who, like Viscount Reading, Lord Melchett, Mr. James Rothschild, and other wealthy men of the same religious persuasion, has provided much capital for several of the world's biggest electrical schemes, including the electrical harnessing of Lake Tiberias, in Palestine. During his visit to Australia, Sir Hugo stated that he believed that Palestine, within the scope of a generation, will become the gateway of the East, and the principal centre of communication with India through Irak.

To-day Sir Hugo is one of Britain's foremost industrialists, and is connected with many of its biggest concerns, including the General Electric Co., of which he is chairman and managing director. He is also an advisory member of the Board of Trade, and he was a member of the Unemployed Insurance Committee of 1925. During the Great War he formed a company at Birmingham, which supplied carbons for lighting, the supply of which was cut off as a result of the war. This company was first established in 1905, but was only a small concern until the war, when it became the centre of carbon manufacture in Great Britain, and, incidentally, helped to make Sir Hugo's fortune.

## SORE THROAT?

*Pulmonas*  
INVALUABLE PASTILLES  
for



QUICK  
RELIEF

## To Be or Not To Be Ultra Violet Rays

COMMANDER Kenworthy, the British member of parliament for Hull, is asking for the truth about ultra-violet rays. He states that he, personally, and many parliamentary colleagues have derived great benefit from the treatment. Yet, efforts are being made to undermine its value. In its latest report, the Medical Research Council has thought fit to depreciate the worth of the treatment. In spite of that, however, Commander Kenworthy points out that when Hull, in common with many other municipalities installed sunlight equipment in its public baths, it was an immediate success from the health point of view. It proved of remarkable value as a tonic, particularly during the months when the citizens were deprived of natural sunlight, as well as being curative in the treatment of rickets, tuberculosis and other diseases. The Ministry of Health is being asked to conduct a full enquiry, but surely the proof of the pudding is in the eating.

## The Arapuni Mishap

ALL interested in the expansion of the electrical service throughout New Zealand will be concerned at the unfortunate events at Arapuni, which have, for the time being, necessitated the temporary closing down of that plant. Prompt measures are being taken by the Government and the Auckland Electric Power Board, in their respective fields, to supply the deficiencies of power throughout the territory affected. Plants at Horahora and Waihi are being recommissioned, while the generator stations in Auckland are being pushed to their maximum capacity, with a view to providing not only for Auckland needs, but supplying to the country districts the power so vitally necessary.

The use of electricity in the Waikato area has expanded very markedly in late years, and there is no disguising the fact that the mishap will prove a source of inconvenience in the present and restrict immediate expansion of electricity in this area. It can be taken for granted, however, that the promptest possible measures will be taken to rectify the position and minimise the consequences. The Auckland Power Board has always shown itself to be a vigorous and energetic body, and the conferences held between its chairman and the Government are likely to bear fruit.

## Neon Electric Signs Harnessing Manapouri For Brighter Cities American Syndicate

THE almost universal use of the neon sign in the cities is having a very interesting effect on the use of other signs. So much so, we are told, that bare lamp signs are scarcely ever considered by traders. Many merchants in smaller places who, for one reason or another, are unable to install these effective advertisements, make a stand nevertheless for an incandescent sign. Rates are higher, of course, for energy in the smaller places, but brighter cities, townships, and advertising will

SOME time ago we forecast a forthcoming project to use the waters of Lake Manapouri and the other resources of Milford Sound for electro-chemical purposes. It is pleasing to note that the scheme is, at least, one stage nearer completion.

A concession has been granted by Order-in-Council to a firm entitled New Zealand Sounds Hydro-Electric Concessions, Ltd. We believe it is of American origin and that American capital will be employed. While it would have been better to see New Zealand capital involved, we must congratulate the Americans on being alive to the potentialities of this country.

The engineering plan provides for a tunnel from Lake Manapouri to sea-level at Deep Cove or Smith Sound, where a generating station will be constructed. The license will permit the utilisation of water-power to a maximum of 50,000 horse-power from certain waters discharging into Deep Cove and Smith Sound, and the taking of water to the extent of 5000 cubic feet per second from Lake Manapouri, subject to the limitation that the lake level shall never be permitted to be lowered below 10 feet of the present level.

The licensees have deposited £500 with the Public Trustee as a guarantee that they will prepare plans for head-works, dam, pipeline and generating station. There is a guarantee clause, under which the concession, unless vigorously utilised, will be forfeited in January, 1933. This clause requires a company to be formed with not less capital than the estimated cost of a 50,000 horse-power scheme by January, 1932, and if the licensee has not by a year later developed electrical energy to the extent of 25,000 kilowatts, or spent at least £100,000 on the authorised works, the concession will be forfeited.

The time limit for exploitation of the Manapouri scheme is January, 1941.

## TRIOLET

In the stillness of the garden  
I still hear your taunting laughter,  
And my eager plea for pardon,  
In the stillness of the garden.  
Is it strange my heart did harden?  
But, as I pause, long years after,  
In the stillness of the garden  
I still hear your taunting laughter.  
—“Betty K.”

be due entirely to the neon. The desire for light is almost fundamental, as is evidenced by the delight of the infant as it looks toward a bright light. The well-meaning efforts of some of the smaller municipalities have been almost pathetic at Christmas and other festivities, but with electricity becoming more readily available, more worthy results will, no doubt, be achieved in the near future.

## A Good Customer

THE Manawatu-Oroua Power Board, of the Palmerston North district, claims to be the Government's fifth best customer.

The chief engineer reported at the board's last meeting that he hoped that life would be given this month to the new Palmerston North line, and another extension will soon be started to take in Karewarewa. The extension to Te Awa settlement is already well on the way, and new consumers are being registered at the rate of 75 per month.

## Answer to Correspondent

“SARDONYX”—Translations differ.  
Edwin Fitzgerald's reads:  
“Wake! For the Sun, who scattered into  
flight  
The stars before him from the field of  
night,  
Drives Night along with them from  
Heaven and strikes  
The Sultan's Turret with a shaft of  
light.”



**Problem No. 5** (solutions of which appear this week).—“A. and B., who work in the same office, have been life-long friends. A. discovers quite accidentally that B. is tampering with the office funds. A. knows that if he reports the matter to the manager B. will be dismissed promptly without a reference, and may be prosecuted. As B. has a widowed mother wholly dependent on him, A. finds it hard to decide whether loyalty to his manager or loyalty to his friend should come first. Should A. do anything? If so, what?”



**VERY** many of us are in agreement about the problem. It would never do for A., having made the discovery, to stand aside and do nothing, or “leave the matter in the hands of Providence,” as one competitor suggests. For one thing, by so doing he would become a party to the crime; and for another, he would be watching his friend rushing headlong to disaster.

Nevertheless, he will be feeling very exercised in his mind as to the best course to take. He should think twice before divulging the state of affairs to the manager, both for the sake of his life-long friendship and the widowed mother. His best course, is, I think, that suggested by many correspondents, viz., that he should go to B. and tell him of his discovery and ask him, in as friendly and sympathetic a manner as possible for an explanation. Probably B. has got into debt, or, possibly, is the victim of a blackmailer. In any case, he should be given his

# Invitation to the Wedding

## Mr. and Mrs. “B” in Further Trouble

**PROBLEM No. 7.**—“Miss A., Mrs. B. and Mrs. X. move in the same social circle. Miss A., whose marriage is approaching, asks Mrs. B., who has already received her invitation, to lend her as many dishes as possible for the occasion. Mrs. B. agrees to do so, and rings up Mrs. X., asking if she will also lend some dishes. Mrs. X. says ‘Yes,’ but in rather a hesitating manner which Mrs. B. notices and says, ‘Of course, you have received an invitation?’ Mrs. X. replies, ‘No, and I am wondering why?’”

“Mrs. B. insists that the omission is accidental, and says that she will ring Miss A. about the matter. She does so, and Miss A. replies that although she has no quarrel with Mrs. X., she has purposely withheld the invitation because Mr. X’s conduct often leaves much to be desired, and she cannot risk it at her wedding. What explanation can Mrs. B. give to Mrs. X?”—Suggested by “Nemo.”

Answers must be postmarked not later than June 26, 1930.

chance, for, as “Fanny” says, “Often to know all is to forgive all.”

A. should, however, make it perfectly clear to B. that it is the duty of one or other, or perhaps both of them, to inform the manager, if the state of affairs cannot be rectified. If they are not too serious for restitution to be made, I do not think that A. should insist on B. confessing, providing he ceases the offences. Further, he should, if possible, assist his friend to make restitution. But if B. has gone too far for the deficiency to be made up, or accounts have been falsified, or there is any risk of another person being involved or suspected, then A. should tell B. that he must “make a clean breast of it” or A. will feel compelled to inform against him.

Many admirably expressed answers were received, notably “Fanny’s” “Vivat’s” and “Viator’s.”

“B. must promise A. faithfully that there must be no repetition of the offence, and it will be wise to watch carefully, in the firm’s interest, without seeming to do so, to see that there are no further defalcations.”—“Jean.”

“Where it is part of a man’s duty to report pilfering or fraud in any form, he must report the matter as he would if the culprit were not his friend.”—“Bab-el-Mendeb.”

“A must give B. the option of restoring the money and resigning his position on any excuse he cares to give, or going to the manager and confessing.”—“Nemo.”

“A. should convey to B. that he has detected B.’s misdeeds, and point out to him the foolhardiness of his acts. He should implore him to refund the money and abandon the enterprise.”—“Oneeny.”

“A. will be constrained to inform the manager if the money is not returned within a limited time. The fact of B.’s widowed mother and his friendship for B. cannot be allowed to stand in the way of duty. A. himself may be able to aid B. in his difficulties. He should do all in his power to save B.’s good name.”—“Viator.”

### Marks Awarded.

Anon, 2; Amaryllys, 2; Anice, 0; Artful, 2; Apple-pie Mary, 5; Alfa-joy, 4; Bibi, 5; Bab-el-Mendeb, 5; Ben, 5; Miss Rachel Baker, 5; Bonza, 0; Barbara, 4; Babette, 5; Clara, 0; Clericus, 2; Campfire, 0; Viator, Don Chesman, 5; Duplex, 0; Diabolo, 0; Devon, 2; Eenan, 4; Effie, 5; Equity, 0; Fanny, 5; Frances, 0; Flirt, 0; Flora, 2; Grace, 3; Gunga-din, 0; Haven, 0; Heather, 2; Hopscotch, 0;

omi, 4; Vivat, 5; Viator, 5; Viola, 2; Verity, 0; Wynward, 2; Weaver, 0; Waterway, 0; Watchful, 2; Xerxes, 0; Xylonite, 2; Yum-yum, 2; Youngster, 0; Zenobia, 2.

## Slaughtering by Electricity

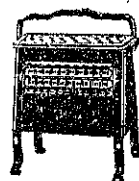
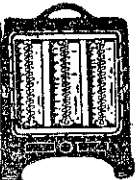
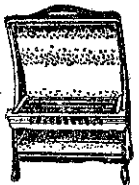
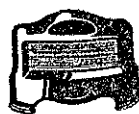
**AN** electrocuting apparatus has been installed at a meat packing plant in Germany. By its use one man, who attends to the mechanism, and controls the current, can dispose of about 200 hogs per hour. From an elevated cage the animal is discharged into a trap where it is instantly electrocuted, and dispatched to the cleaning boards. The apparatus appears to be worthy of investigation by interested firms in a country like this, where the necessary electric power is so readily available.



—she thinks he’s wonderful during the evening programme—but when it comes to baking she’d sooner have a tin of **ANCHOR SKIM MILK POWDER** on the shelf than the finest radio going. A few spoonfuls added to every mixing means more delicious scones and cakes—higher food value—and a freshness that lasts for **DAYS**.

Just try it yourself. Ask your grocer for **ANCHOR SKIM MILK POWDER**. Price 1/2 tin.

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## ELECTRIC FIRES

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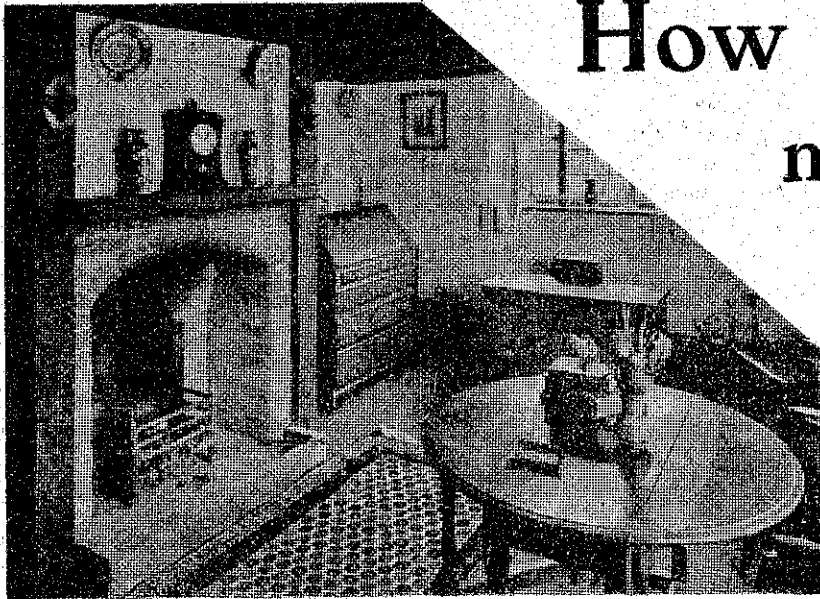
The Distributors

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# How ELECTRICITY made an Old-world House into a Modern Home

A  
really  
fine old  
kitchen that  
became a hall  
in the new home.



ING-A-TING! Ting-ting-ting! That telephone again. Wearily, I answered, "Yes, oh, yes; and who is it?"

"Only Elsie," came the reply, "but don't answer if you don't want to. I know just how you feel. But I have some news that I thought you would like to be the first to hear."

News from Elsie is always welcome, so bracing up, I said, "Oh, what is it this time?"

"Oh, just nothing, dear; but I'm getting married again."

"Well, surely you don't call that news, do you?" I retorted. Elsie is always getting married again. She is one of those women (we all know them) whom men refuse to allow remain unmarried. I verily believe, when she was in her cradle, some small boy of six proposed for her.

"Oh, well, if you're going to be horrid about it, and all that," she said.

"I'm not, I am really thrilled," I lied, "and do tell me all about the great big HIM for this time."

"Oh, nothing about him, dear, except that he has such a dreadful name. He's called Benjamin. It's about the house I want to talk to you. It's odd, and it's such a nice house, and he won't give it up or live anywhere else. I don't see how I can live in it the way it is now. That's what I want you for."

"Glad to be wanted, anyhow," I said. "You'd better come up here and talk about it."

"Oh, no, you be a darling and motor out with me to see the old home. Lunch here first."

Well, of course, Elsie is one of the people you simply can't let down, so accordingly we lunched and motored.

As we lunched, she confided that Benjamin was the owner of a good old family property in a neighbouring district. I heard that he was a retired sheepfarmer, who had happily made his money before the fall in prices.

Seemingly, Elsie is to be the mistress of it, if she so wills. She bemoaned the fact that it was hopelessly out-of-date. She reminded me of the days when we dressed for our first balls by candle-light—but nevertheless, she was determined never to do it again, be Benjamin never so fascinating.

Well, the new old house proved to be a charming home, as you may

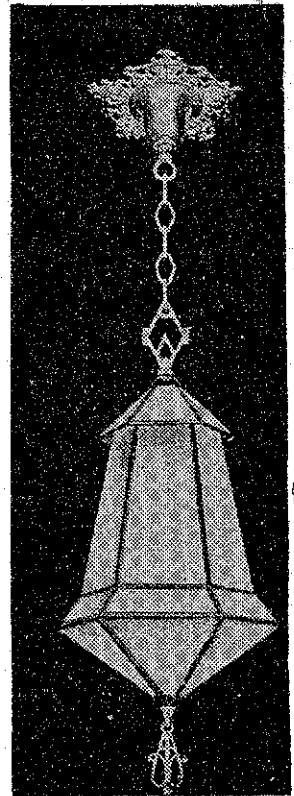
guess, but how neglected! Presenting a blank front to a wonderful old hedge that must have been many a year a-growing, it had one storey above the ground floor, and had been added to on either side. The back view was really the more charming of the two, looking out over a sloping landscape. We stood and looked, plan after plan tumbling into our minds.

First of all, of course, the front of the house will now have to be the back, and vice versa. The present front, but henceforward the back, will be given an added charm. It will have a verandah, built at very little cost, and there Elsie will install not only electric lights, but plenty of heating points, so that breakfast, tea and supper can not only be served there but made there in fine weather.

A couple of gateways will be cut into the hedge on either side of the house, and a drive made right round to the back—now the new front of the house. At each of the gateways we shall hang an electrically-lit lantern. This new front is much the most interesting part of the building, and to it we propose to add a porch, in colonial style. It shall have a really dignified lamp at its entrance.

This part of the house now consists of a really fine old kitchen, with some good old beams. One wonders who first put them up and with what dreams of families to be. Now it is going to be the hall, and a fine one it will make.

So much less room will be required for the electrical kitchen, with its electric stove, water heater, etc., and space for cooking operations, that a side room will suffice. With the old-time range removed, the old kitchen makes a truly delightful apartment. The stove space bricked up and an electric dog-grate installed, the mantelpiece becomes a feature of the room. Central lighting will be installed in the form of, preferably, a futurist pendant, with a standard lamp flanking a Chesterfield sofa. (Concluded on page 40.)



Central lighting will be in the form of a futurist pendant.



## Vinegar as a Healer

WHERE circumstances permit, it is undoubtedly wise to keep a stock of medicines. There, however, is one healing agent which is to be found in almost every home, and that is vinegar, one of the most useful disinfectants for obstinate wounds. One of my sons had a large and ugly wound on the shin-bone. For three months the doctors tried to heal it, and at last amputation was discussed. Then I read a "Mirror" par. recommending starch poultices, and I applied these continually for one day, making the wound look thoroughly clean. After that I applied a pad of lint soaked in vinegar and water (boiled), making the solution as strong as the patient could bear. I covered the pad with oilskin to keep it moist, renewing it night and morning. In three days the result seemed miraculous. The wound was practically healed, and needed only protection for a little while before all was well. I have four boys, all baseballers, who are continually receiving injuries, and I am sure that the vinegar treatment has often saved the expense of medical attention; in fact, it has never failed me. One important point must not be overlooked. The vinegar pad must be kept moist and on the wound both night and day until there is a marked improvement.

## A Saving Guaranteed

### Ingenious Frauds Brought to Book

ALMOST daily one hears of various forms of theft, but the stealing of electric light is an unusual type of offence (says "The Dominion"). That it exists is beyond doubt; that it is difficult to detect and sheet home is equally beyond doubt, and this is one of the difficulties with which the city electrical department has to contend.

An interesting "exhibit" has just come into the possession of the department as a result of the alertness of one of its officers. It is a piece of thin wire about six inches long, bent in the form of a semi-circle. The tenant of a house was in arrears with his lighting account, and as he did not pay his supply was disconnected. He had sublet the back rooms, the sub-tenant paying a small additional sum to cover the cost of light. Not being able to get a light, the sub-tenant inquired as to the trouble, and, on being told, advanced money to pay the account so that the connection could be restored. The connection was restored, but not by the department, and the man in the back room had his light, which was all he was concerned about.

AN officer of the department, however, knowing something of the circumstances, saw lights in the house, and made a few quiet investigations. On gaining admission to the house he found a small piece of wire had been fixed to the bottom portion of the meter, making a short circuit so that the current was not recorded. It is probable that the tenant will be called upon in the near future to give some explanation of the affair. It is, however, a dangerous business for amateurs to attempt anything of this kind, for it requires some technical knowledge to achieve this ingenious fraud, and a shock from the new voltage is powerful enough to be fatal.

#### "A Neat Little Gadget."

SOME considerable time ago the department suffered considerable loss from a device which was unwittingly installed by principals in a number of business premises in the city, and it was only discovered accidentally. An officer of the department one day met the owner of a shop in the main street, who boasted that his electricity account was only half of what it used to be, thanks to a "neat little gadget" he had bought one day.

His usual account was about £6 a month, and it had come down to about £3. The officer was interested. "I want to have a look at it," he said, and was taken to the establishment. At the back of the meter was the "neat little gadget," a piece of metal with very thin wire spring on each end, and this had been attached in a manner—but out of sight—so as to short-circuit about half the current, in a similar manner to the first-mentioned case.

#### Guaranteed a Saving.

THE business man explained that a man had called on him two or three months previously selling the contrivances—which would not cost more than 6d. each—at 10/- each, guaranteeing that it would save at least 25 per cent. on his lighting account, and if it did not he could have his money back. The saving had amounted to 50 per cent. during the period the device had been in use.

The matter was put in the hands of the police, and the man was brought to book, becoming "the guest" of the country for a period.

In the meantime he had disposed of several dozen of the "neat little gadgets" in the city area, and if all the accounts had been reduced by half, then the loss to the department over a period of about three months was fairly heavy.

In another instance a man went into an empty house from which the wires had been disconnected and the meter removed. By some means or other the connection was restored, without the knowledge of the department, and the man had "free light" for several months before it was discovered. The man denied all knowledge of the affair, saying he had nothing to do with the paying of household accounts and did not know he had been getting electricity for nothing for most of a year.

## Purification by Electricity

WATER can now be purified for drinking and domestic uses by a compact appliance which operates from the ordinary heating or lighting point.

As the water passes through the various chambers in the purifier, it is subjected to the action of electrical currents which remove foreign particles of matter and also destroy injurious germs. The contrivance should be invaluable to those who are doubtful about the purity of the water supply. It becomes more pure as it



MILLCENT O'GRADY

Lyric soprano, who was, until recently, resident in Auckland, is now in Christchurch and will be heard from 3YA on Wednesday, June 18.

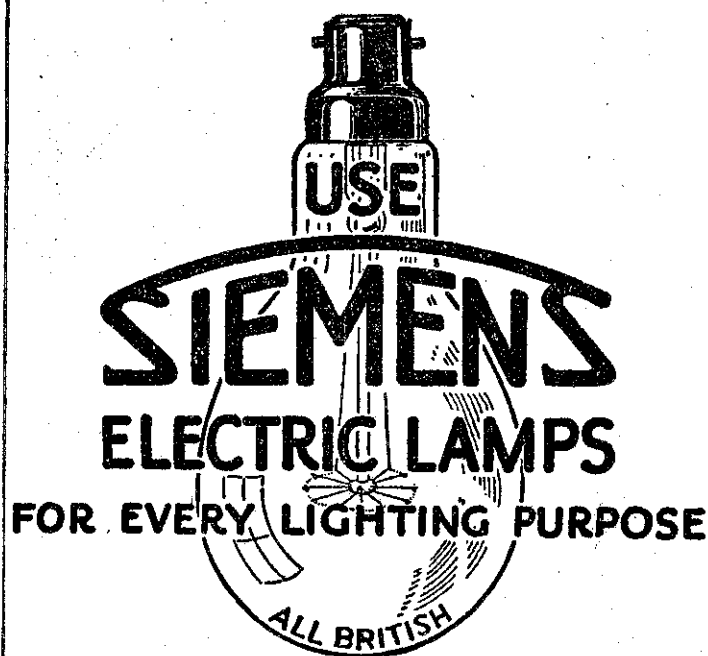
passes through the chambers, until it is finally delivered in a state equal to that of distilled water.

The apparatus is so simple that it requires practically no attention once it is installed; the compartments are kept free of accumulations by the flow of the water under treatment, and great efficiency is claimed since there is no necessity for heating, with the consequent loss by evaporation and radiation.

#### Lamp's Magical Powers

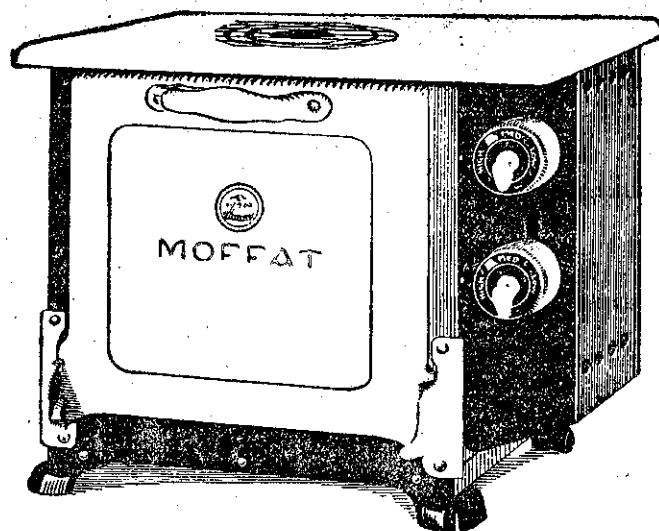
LAMPS as magical as any in a fairy story are shortly to be produced, according to the "Daily Mail." Electric light bulbs, composed of tungsten and mercury elements are being experimented with, and it is claimed for them that they will have more health-giving properties than the sun, and their use will render the meanest and darkest cellar as healthy as a hillside in summer. Dr. Luckeish, who is experimenting with them, is convinced of their ultimate success.

The interior of future buildings, he says, will be covered with substances such as translucent quartz, having the power to retain and conserve ultra-violet radiation. In nurseries and schools, abbreviated dresses will be worn; colds and other illnesses will disappear before the lamp's magic rays, and the length of human life will be extended.



Obtainable from all Electrical Dealers  
N.Z. Agents:  
**CORY-WRIGHT & SALMON**  
Engineers, Wellington.

## Plug in this Moffat Range where you like.



Neatly enamelled for permanent, easy cleaning, it will look in keeping with any surroundings. It will cook well for four or five persons.

On top is the boiling element which, at high heat, will send water steaming hot so quickly and at low heat it will broil gently for hours without using much electric energy.

Lift the door handle to get to the oven, and the two steel hinges at the bottom hold the door level with the floor, so handy. The interior is all enamel one-piece welded steel. No corners to tarnish, and the elements are top and bottom, out of the way, and placed to direct most heat to the centre of the oven. The thermometer registers the heat at this spot, e.g., the centre of the oven.

Between the inner and the outer casing of the range is the lagging which keeps the heat in the oven. This scientific lagging is a feature to ensure economy for ever.

All wiring connections are made outside the lagging so that heat is kept away from the insulations.

The elements are made the same as elements for enamelling furnaces where they hold a temperature 1600 deg. Fah. day and night.

In domestic service the elements do not go above 500 deg. Fah., so they are stronger than they need to be.

The length of fully-armoured flexible connection ends in a plug for any heat point. This may be connected to an iron point.

The price of the small Moffat cooker is £11/15/-  
Ready to plug in.

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AUCKLAND, WELLINGTON, CHRISTCHURCH,  
DUNEDIN, HAMILTON, NAPIER.

Free Cooking Instruction every week.

## COUNSEL for the COOK

### Special Curry

Ingredients.—2 onions, 2 carrots, 1 parsnip, 1 apple, 1 teaspoon butter, cold or fresh meat, 1 cup stock, gravy or water, 1 teaspoon curry powder, 1 tablespoon flour.

Method.—Clean and slice the vegetables into rounds, fry them brown in the butter. Put the meat into a pan with the stock, gravy or water, add the browned vegetables, and cook until tender—about half-hour. Mix the curry powder and flour to a paste with cold water, add to the meat and vegetables. Cook for two minutes more and serve.—I.M.

### Oyster Patties (Without Oysters)

Ingredients.—Puff pastry, salsify or oyster plant,  $\frac{1}{2}$  cup milk, 1 large teaspoon cornflour, salt and pepper.

Method.—Scrape salsify and drop immediately into water and a little vinegar. Have ready the pastry made into round tarts, with hole in centre. Cook salsify, mash, salt and pepper it. Heat milk and thicken with cornflour, flavour with butter and seasonings. Mix mashed salsify. Have the pastry reheated and drop a teaspoonful of salsify mixture into the centre of each tart, and serve hot for suppers.—M.F.H., Waikoa.

### Three-minute Sponge

Ingredients.—1 tencup of sugar, 1 breakfast cup of flour, pinch salt, 2 eggs (unbeaten), 3 tablespoons of milk, 2 tablespoons of melted butter.

Method.—Beat all together for three minutes, and add 2 good teaspoons baking powder, and beat for two minutes. then pour on a greased and floured tin, and bake 15 minutes.—Mrs. H. Alexander.

### Chocolate Biscuits

Ingredients.— $\frac{1}{2}$ lb. butter,  $\frac{1}{2}$ -cup sugar, 1 egg, 1 teaspoon baking powder, 1 cup flour, 1 cup coconut, 1 tablespoon cocoa,  $\frac{1}{2}$ -cup chopped nuts.

Method.—Cream butter and sugar, add egg and dry ingredients, and lastly nuts. Place on cold slide and bake in a moderate oven. These are delicious.—Miss A. Budge.

### Spanish Steak

Ingredients.— $\frac{1}{2}$ lb. steak, minced, 1 teaspoon finely-chopped mint, 1 breakfastcup breadcrumbs, 1 onion chopped finely, 2 eggs, salt and pepper to taste.

Method.—Mix all the ingredients together and mould into balls. Place these in glass jar and steam them in a saucepan of boiling water for 2 $\frac{1}{2}$  hours. Serve hot with sauce and bread and butter.—“Septimus.”

### Orange Marmalade

Method.—Slice 12 poorman oranges and one lemon very thin, and put in a basin; put 13 breakfastcups full of

cold water, and let them stand all night; next morning measure how many cupfuls there are and put as many cups of sugar and boil for 3 hours. Put the fruit and liquid into the preserving pan and when it is hot add the sugar a little at a time, when it is all in boil for three hours; it is then cooked, and will be found very

### Savoury Beef Casserole

THIS week's prize of 5/- goes to “Gourmet.” Cooking in casserole has many advantages, some of which are almost too obvious to mention. For instance, the whole of the meat course, potatoes, meat and vegetables, can be left to cook for two or three hours, requiring little or no attention. Cheap joints, often the most nourishing, but which would be tough with short, quick cooking, are rendered tender by the long, slow process. Finally, a point that appeals to those who are responsible for washing-up, the casserole is served on the table, and the washing of pans and the dishing up is done away with.

Casserole cooking can be carried out with any type of stove, but the electric range is preferable, owing to the greater ease with which the heat is controlled, and a low, even, steady temperature maintained. The best results are obtained by bringing the food to the boil, and leaving for two or three hours at 240 degrees Fahrenheit.

Ingredients.— $\frac{1}{2}$ lb. steak, salt and pepper, 1 onion, 1oz. dripping, 4 medium sized carrots,  $\frac{1}{2}$ lb. bacon,  $\frac{1}{2}$  pint stock,  $\frac{1}{2}$ oz. flour.

Method.—Cut the steak into neat pieces, cook the bacon, and fry the steak in the fat, and remove. Fry the onion and brown the flour. Gradually pour on the stock, bring to the boil, and add the carrots, cut in thin slices. Place steak and bacon on top, bring to boil again, then lower temperature, and cook in very slow oven for two hours. more or less, depending upon the age of the carrots.

satisfactory. I have never had a failure with it yet.—“Benlah.”

### Salmon au Gratin

Ingredients.—One tin salmon, white sauce, 2oz. grated cheese, 1 tablespoonful breadcrumbs, 1oz. butter, seasoning, mashed potatoes, cinnamon, 1 egg (hard-boiled).

Method.—Empty the salmon into a dish, sprinkle with half a teaspoon of cinnamon, grate the egg on top. Make the sauce thick and spread over the salmon and egg. Then the mashed potatoes sprinkled with grated cheese and bread crumbs, dot with butter and put into a hot oven, 400 deg., about 15 minutes.—Mary.



## Prize Poem Competition

THE prize of half a guinea this week is awarded to the poem entitled "Treasure," by "Oh, Mack," whose delightful literary taste and capacity must appeal to those who possess an open sesame to the beauty of the earth's surface. This week entries have been few in number, though of a fairly good standard, the lull indicating a swing of the pendulum after the avalanche of literary matter that reached this office for the Parody Competition, which proved itself undoubtedly popular. Selected for publication is a love poem by A.N.I.C., whose flair for poetic and wistful expression of realised beauty is very marked.

"Vignette's" small poem, unsuitable for publication last week, is so appealing, with its sedate and Old World air, that we print it for the delectation of our readers.

"Sweet and Twenty": Your lilting lines of apple-blossoms and Jack and Jill in the moonlight are too innocuous altogether.

"Joan of Arc": Bravo! You make a gallant gesture.

"Dublin Rose": Mere mundane chat about an uninteresting incident. Nothing but the truth is all very well, but unembellished 'tis not the stuff of which poems are made.

"D'Artagnan": A lay of blood and sand and the brave days of bull-fights, which falls as flat as the tereadior.

"Florentine": A mist and moonshine madrigal, which lacks coherence.

"John o' Groats" tells us he has music in his soul; but it remains there!

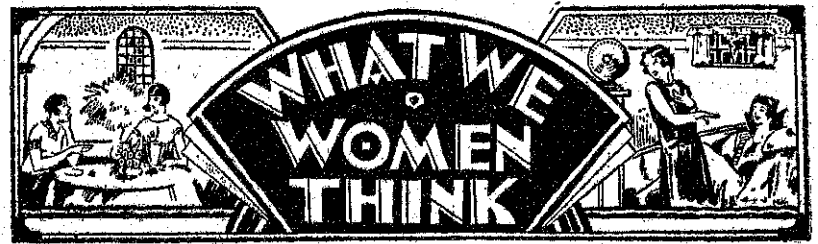
### TREASURE

PUREST gold is my treasure trove;  
A miser am I!  
Gleaming palely—a fairy grove,  
Money can't buy!  
Laughing I visit my storeroom strong,  
Counting my treasures when nights are long,  
Sifting it softly and singing a song,  
Golden as rye!  
Plunder untold does my storeroom hold,  
Richest of gems and brightest of gold.

My treasure house is my memory,  
A citadel strong,  
Wherein I store them carefully,  
Singing my song!  
Gloating I look at them one by one,  
Gleaming bright gold of the morning's sun,  
Molten red tint when the day is done—  
Drifting along—  
Yellow and gold of a wattle tree,  
Laughing-faced daffodils nodding at me.

A butterfly's wing with its tissu'd gold,  
A young maiden's hair;  
The lustre of corn, yellow buttercups bold,  
A gorse hedge's flare!  
Orange and red of the apple-tree's best,  
Molten and bronze, of the leaves seeking rest,  
Yellow the sands and the fleeting bird's breast,  
Gold everywhere!  
Plunder untold does my storeroom hold,  
Richest of gems and brightest of gold!

—“Oh, Mack.”



IT is now forthcoming from the latest news from London that men are the vainest members of creation. There, we hear, beauty salons for men only are springing up, and facial transformations are being carried out daily. If, perhaps, one is not in love with the nose he was born with (few of us are), he can have it remodelled. But, mark you, these salons, are for men only! Even the manager of one admits that the cult can be carried to excess. As witness a man, who was fitted with a perfectly good new nose, only to return a month or two later, saying that he preferred the old one. He wanted it back again, evidently on the principle of "better the devil you know than the one you don't." The war, of course, gave plastic surgery its great opportunity, but with a very different meaning. Many poor lads, with broken jaws, were only too glad to submit themselves for treatment, but need the cult be carried on until it becomes sheer vanity?—R.M.S.

purchased for the rest of his days the living rights of a cave. For this he had paid the equivalent of twelve pounds. It was not a simple cave like we find in the sides of hills, but one of those complicated structures that has been "home" to someone for thousands of years. Beyond the rough wooden door was a complete Old World flat, including a spring of truly delightful water from which Jews had drawn their supplies throughout their long history.

One day my friend was passing the cave and, being thirsty, approached the "residence"—but the old man was out. He kept the key in a recess near the door. Imagine his surprise when, instead of the key, he felt something sinewy which yielded to the touch. Then a sharp hiss and a rattle. It was a snake—one of the venomous type that frequent dark corners, and although they will not interfere with a passer, will deal a deathblow if molested.

ACCORDING to a friend of mine who has just returned from a protracted stay abroad, Palestine is a country of surprises—delightful and otherwise. In relating his experiences he told me of an incident that made my blood momentarily freeze. Wishing to live secluded, a patriarch had

"It is difficult," he related, "to say who got the greater fright—myself or the snake. I withdrew my hand without waiting to feel for the key, although I was sure that by this time the snake was far away. That day I went thirsty for a good many miles, for drinkable water is not found in every stream."—"Gwendolyn."

## Put your LIGHTING in order for WINTER now



### PHILIPS-ARGENTA

## Use Philips Lamps and See Made In England from ore produced in New Zealand

## A House to a Home

(Continued from page 38.)

at one side of the fireplace, and a table bearing a lamp at the other. The table lamp should do double duty, lighting both the occupant of an easy-chair at the fireside and a writer at the table. So much for a comfortable general living-room.

**T**WO erstwhile bedrooms at one side of this hall will now serve as dining-room and kitchen, with a serving hatch between. The kitchen will boast a central light, partly concealed and affixed to the ceiling, with brackets over the range and sink.

The dining-room will have its own special pendant over the dining table, and wall brackets over the mantelpiece, to be used for reading, study, or when more general lighting is required.

On the other side of the new hall or lounge are two corresponding rooms. These we propose to make into a drawing-room for my lady, and a study for her man of wrath. The drawing-room will have a centre fitting for use in case of need, or perhaps concealed lighting along the picture rail, to cast a soft, reflected glow over the whole room. I think, too, that she will ask for one or more standard lamps—probably one to light a cosy space near the fireside and another near the piano.

The study will need little beyond a central light, preferably semi-indirect, and a green-shaded reading lamp.

**U**PSTAIRS we found no less than four good rooms, arrived at by a fine staircase, terminating in a landing

nearly as large as the new hall. For this, after planning for a lamp at the end of the stairs on the newel post, we culled from the old sitting-room one of those old settees with cane back and seats. Somehow, it did not fit in with our ideas of downstairs, but here, with loose cushions and a fine old rug on the floor, it was ideal. It really made another sitting-room. When it began to look so nice, we let ourselves go here, and planned for a single candle sconce on each of the three walls.

Now, hush; Not a word! Never before had this house had a bathroom! Obviously, if Elsie were about to live here one must be found, but where? There were four bedrooms corresponding to the rooms downstairs. Should we sacrifice any of our beloved landing? No, rather one of the bedrooms must go. And we let it go with a will. The two rooms over the kitchen and the dining-room seemed the most suitable for iteration, so, moving the partition between the two a little, we achieved a roomy bedroom and a noble bathroom.

The bedroom, of course, will have its central fitting, its bedhead lamp, and its brackets over the dressing-table, and I somehow think Elsie will manage a little table lamp for a writing table.

**A**ND now the bathroom! That really will possess the mysterious quality called IT. I do not think it will have a central fitting either. Rather I think it will have two or more concealed lights of comparatively low power concealed around the cornice again. Do you know the sort? They make you wonder when you turn the light on where it is coming from. There will be a shaving cabinet for

Benjamin, with a magnifying mirror and a light on either side of it, and another over the basin. We have not yet decided whether the basin and bath shall be sea-green or mauve porcelain. Elsie isn't sure which will tone the better with Benjamin's complexion.

The guest rooms on the other side of the landing—no, it is much too nice to be called a landing, the upper hall—shall be like unto the first. They, too, shall have their central lights to sit and talk by, while we brush the hair that we have not, the dressing table brackets by which to make our toilettes, and their bedhead lamps by which to read.

Benjamin, maybe, will be dismayed to find anything from 20 to 50 lamps installed in the old home, but the consumption of current will be small, because each of these lamps will burn when it is wanted and only then. The whole house will be enriched with lighting possibilities.

And now I am hoping Elsie will ask me to go to stay there!

## Ten-Minute Marriages

**T**HE Soviet seems to be reversing all our preconceived ideas on life. The latest is a form of marriage that takes 10 minutes and a divorce which occupies 9 minutes. The latter is remarkable. The petitioning party merely goes to the registry office and there lodges an application for a divorce. No grounds are given, for it is argued that parties not happy together should be released in the least possible time. "Have you any children . . . and what arrangements have you made for them?" is a question that is invariably put to he or she who seeks separation. Provision must be made for each offspring, but both man and woman have to share alike in responsibilities. Each is an economic unit in the eyes of the State, and responsibilities must be equally shared. It is stated that more than one young person under 25 has been refused marriage on the grounds that he or she has been married at least eight times previously. There is no form for either marriage or divorce. It is a case of enter the office married or single and come out single or married. Is this symbolic of the world of to-morrow?—G.A.G.

## Fading and Distortion

(Concluded from page 30.)

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

Increasing the power of the station not only increases the daytime range, but also increases the area over which interference of ground and reflected waves may occur at night. This characteristic probably accounts for the fact that some of the lower-power stations which are heard only weakly in

the daytime, if at all, are quite free from distortion fading at night, as also are high-power stations at a distance when the receiver is beyond the range of the ground wave.

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

## For General Lighting

Use



## Inside Frosted LAMPS

Give freedom from Glare, an outstanding feature of Pearl Osram Lamps. They enable you to read, write and work in comfort.

The Nation's Sight Needs Osram Light

MADE IN ENGLAND



don't wait for eyestrain

... but look to your lighting. The steady, clear, comfortable radiance of the "Condor" Opalite is light in its ideal form. This practical, and at the same time, elegant shaped lamp gives a soft yet brilliant light which safeguards the eyes from troublesome light circles and disagreeable shadows.

# Condor LAMPS

CONDOR LAMPS (AUSTRALASIA) LTD.  
SYDNEY, MELBOURNE, ADELAIDE, BRISBANE,  
WELLINGTON, N.Z.

# £20 BETTER LIGHTING COMPETITION



## PRIZES:

**FIRST: £10.** An order for £10, to be spent either in improved electrical wiring and lighting fittings of the home, or, by permission, in electrical apparatus.

**SECOND: £5** (under the same conditions.)

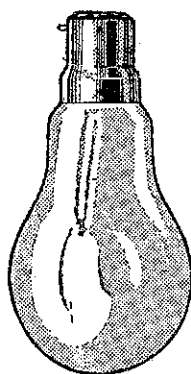
**THIRD: Five separate orders of £1 each,** to be spent in lighting equipment.

## RULES AND CONDITIONS:

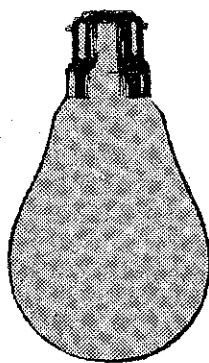
- (1) Write the trade name of each lamp as illustrated, in the order given.
- (2) Take any one of these trade names and compile a sentence with each word utilising in their consecutive order the letters of that trade name. (See examples in text).
- (3) Write neatly in ink on one side of paper only. Put name and address on entry.
- (4) The judge of the competition is the Managing Editor of the "Radio Record," Mr. A. J. Hieghway, and his decision shall be binding and final on all competitors.
- (5) The competition is open to readers of the "Radio Record," and the general public who comply with the conditions: employees of newspapers, advertising agencies and electrical houses are ineligible.
- (6) The official entry coupon from any issue of the "Radio Record" must be used.
- (7) The competition definitely closes with the clearance (P.O. Box 1032, Wellington, at 9 p.m. on Saturday, June 21, and the award will be made as soon as possible thereafter.
- (8) The names and addresses of prize-winners, and the winning entry, will be published in the "Radio Record."
- (9) Prize-winners must select their prizes within one month of the award being made.
- (10) There is no limitation upon the number of entries by any one competitor, provided the official coupon and entrance fee are forwarded in each case.

## Improve your Home Lighting at our expense in this entertaining way

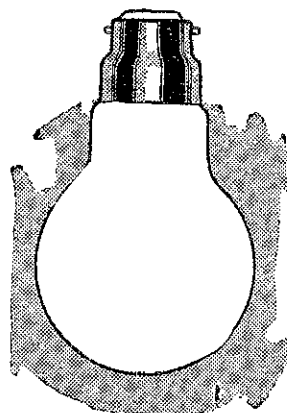
**N**OTHING adds more to the charm of living-room, drawing-room, sitting-room or bedroom than well placed, artistic lights. In too many homes that awkward single pendant globe in the middle of the room still prevails. It dominates the eye, inducing strain and discomfort... With suitable standard or wall fittings, the whole character of your room can be changed; the light placed where it is required; only as much as is needed used, thus effecting economy; eye strain avoided, and health and comfort improved. Investigate your own problem and improve the artistry and economy of your home by winning this simple competition.



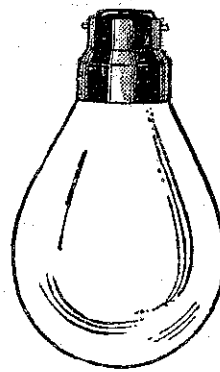
1



2



3



4

**T**HESE are illustrations of well-known globes advertised in this issue. Competitors must correctly name these globes in the order given. Next, take any one of the trade names and write a sentence which, while making perfect sense, shall have each word beginning with the consecutive letter of the trade name chosen. For example:—

"Osram": Oh, some rooms are mellow.

"Philips": Peace, happiness in living in Philips' sunlight.

"Siemens": Superb illumination explains many entrancing new shades.

"Condor": Condor offers new daylight over rooms.

It is immaterial which word is chosen. The prize will be awarded to the competitor who sends in that sentence which, complying with all the conditions, constitutes the best sentence, preferably embodying some characteristic of the lamp and its service towards home comfort. Some of the names may prove more adaptable than others. Competitors have a perfectly free hand in making their selection. For the characteristics of lamps and improved lighting, they are referred to articles appearing in the "Radio Record" and advertisements of the lamps concerned.

Entries on official coupon clipped from the "Radio Record," accompanied by the entrance fee of 6d. in stamps, must be addressed to "The Radio Record, P.O. Box 1032, Wellington." The competition closes at 9 p.m. on Saturday, June 21, 1930.

This Coupon, clipped from any issue of the "Radio Record," must accompany every entry.

### £20 "Radio Record" Better Lighting Competition

"RADIO RECORD,"

P.O. Box 1032, Wellington.

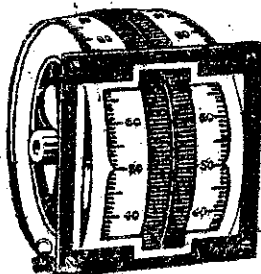
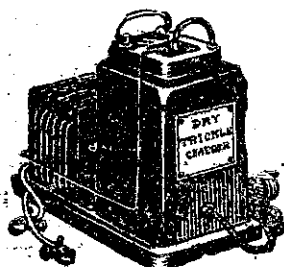
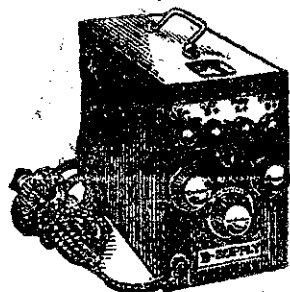
I enclose my entry for the £20 "Radio Record" Better Lighting Competition, with the entrance fee of 6d. in stamps, and agree to accept the decision of the judge as final.

NAME .....

ADDRESS .....

# You Change Your Car Oil

ARE YOU FAMILIAR  
WITH THIS  
APPARATUS ?



Because experience and the advice of car manufacturers has given you to understand that a much better performance and longer life is obtained when the car receives the necessary attention.—The same applies to your radio receiver in a lesser degree.—Your set cannot give you complete satisfaction and perfect reception over a long period—without overhauling the valves have only a limited life—connections become loose and cause distortion; in fact, dozens of things which can easily be avoided happen to your set unless they are watched for and prevented.

Give your set every opportunity to perform up to standard—purchase the "Radio Guide" and become conversant with your receiver's operation. Learn how to service it yourself. Check up to-day! Purchase a copy of this valuable publication and learn how!

## SECTIONAL CONTENTS

SECTION 1.—Yesterday, To-day and Tomorrow: The story of broadcasting in New Zealand, told from an interesting angle—illustrated with photographs.

SECTION 2.—Beyond the Controls: Tells when the switch is turned how music and entertainment come from afar. The language is simple, yet nothing essential is left out. . . . Deals with the modern set, and goal—selectivity, sensitivity and quality. There is a section on speakers covering four pages and illustrated by ten diagrams and pictures—and all new matter.

SECTION 3.—From Radio to Record: Devoted to the radio gramophone enthusiast. . . . explains the "why" and "how" of electric gramophone reproduction.

SECTION 4.—Learning by Doing: The constructor's section. Knick-knacks that every constructor will delight to make. Transformers for every purpose; wavetraps and another crystal set. "A" eliminator; a pushpull to

amplifier; home-built "B" accumulators; the two-valve A.C. Brown-ing-Drake with power detection; the D.C. Hammarlund Roberts brought up to date.

SECTION 5.—From Near and Far: The short-wave section, containing an A.C. adaptor and a D.C. receiver that will bring in GSW (England) on the speaker.

SECTION 6.—Within the Vacuum: Explaining all about valves, with full tables.

SECTION 7.—Searching the Ether: Call-signs of every station—broadcast short-wave and amateur likely to be heard in New Zealand.

SECTION 8.—When the Set Goes Wrong: Tracking troubles with condensed schedules for immediate location of troubles.

SECTION 9.—Facts & Figures: Handy and unusual tables, with a gramophone speed indicator, all ready to clip out (there is nothing on the back).

SECTION 10.—Glossary: Considerably revised and brought up to date; all definitions are the essence of simplicity.

## A SUMMARY OF THE LEADING ARTICLES.

The Modern A.C. Set.  
The Modern Battery Receiver.  
Local Station Reception.  
Speaker Details.  
Aerial Information.  
Electric Gramophones.  
Wavetraps.  
All-Electric B.D. Tuner.  
Power Packs and Chokes.  
Circuits of A.C. and D.C.  
Short-wave Receivers and adaptors.  
Trouble-tracking Schedules.  
The World's Call Signs.  
Glossary of Radio Terms.

Price 2/6

## CLIP THIS COUPON

"RADIO RECORD,"

P.O. Box 1032.

Please find enclosed P.N. for 2/9, being payment and postage for one "Radio Listeners' Guide and Call Book."

Name.....

Address.....

3XX

The 1930  
**RADIO**

**GUIDE AND CALL BOOK**  
Obtainable at all Booksellers and Radio  
Dealers or Post the Coupon

Published by "The Radio Record and Electric Home Journal."