

PUBLISHED WEEKLY

# THE RADIO RECORD

AND  
**ELECTRIC HOME JOURNAL**

Vol. IV., No. 17.

WELLINGTON, FRIDAY, NOVEMBER 7, 1930.

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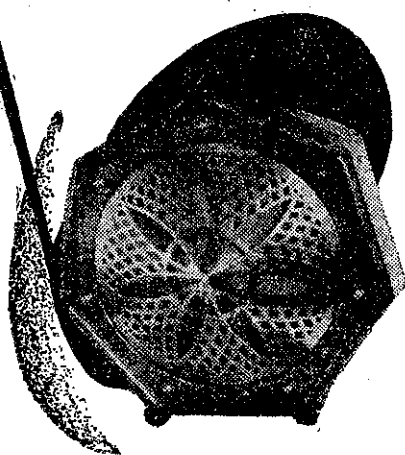
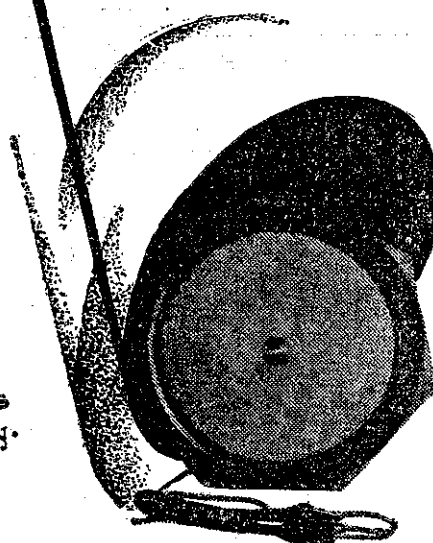
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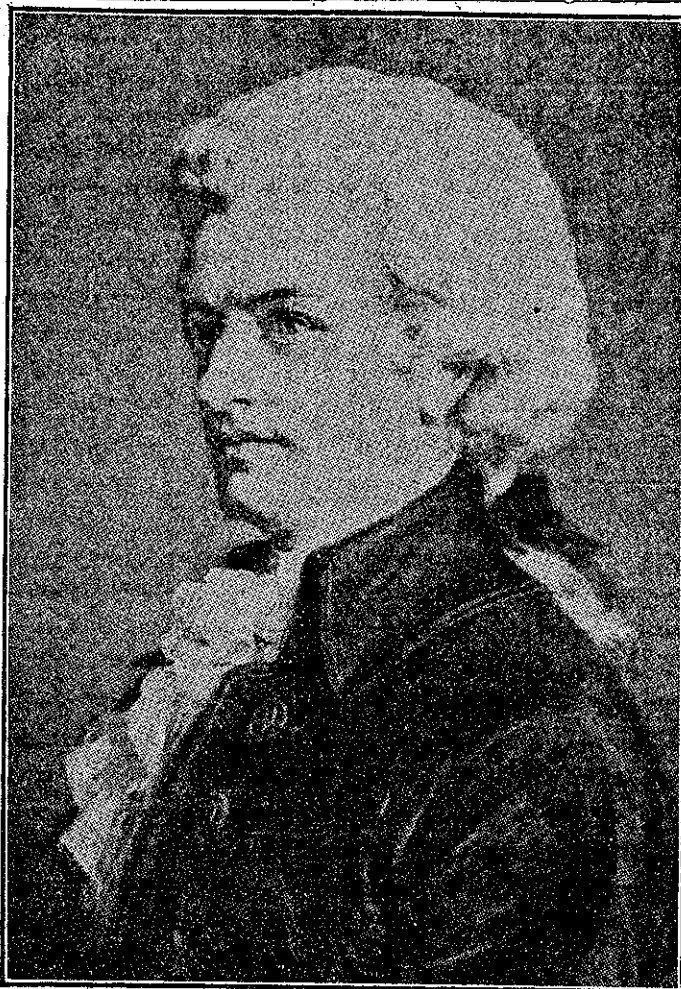
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## PHILIPS SPEAKERS



WOLFGANG AMADEUS MOZART

An Evening of  
**MOZART**  
 from  
 DUNEDIN

**L**OVERS of the works of Mozart should tune-in 4YA on Friday, November 14, when a programme consisting entirely of selected vocal and instrumental numbers by the great German composer will be broadcast. During the evening Mr. Max Scherek, president of the Otago Society of Musicians, will have something to say about the life of Mozart, which, in comparison with the lives of other noted musicians, is not particularly interesting. We do not find with him, as with Beethoven, Berlioz and Wagner, that the biography throws light on the music and enriches it. He was pure composer: he "lisped in numbers for the numbers came." Wolfgang Amadeus Mozart (he had, by the way, a son of the same name who was a talented composer and lived into the eighteen-forties) was born at Salzburg in 1756. His father, Leopold, was a violinist in the service of the local archbishop. Beethoven's father also was a menial German musician; but the difference was that Beethoven's father, a drunkard, exploited his son (thereby intensifying his fierceness), whereas Mozart's father doted on his genius of a son and proudly exhibited him.

**M**OZART, like Pope and Cowley, is a final refutation of the easy theory that "infant prodigies" never develop; the truth being that they may very well develop if they are properly handled. He learned the harpsichord at three; he composed at four, he gave his first public performance at five. At six he toured the German courts with his father (who before long was unable to play the works that the child composed), and at Vienna won the hearts of the Emperor Francis I. and the Archduchess Marie Antoinette, later Queen of France. The boy slipped on a polished floor, and Marie Antoinette, marriage and the scaffold still below the horizon, picked him up. The little Mozart said to her, "You are very kind; when I grow up I shall marry you."

At seven he could sing, and play on the harpsichord, the organ and the violin. At eight he was living in London—first in Cecil Court, St. Martin's Lane, then in Frith Street, Soho, which was also, I believe, the home of the last ambassador from the Venetian Republic. He played before King George III. and Queen Charlotte. Whatever the King mentioned, the child played; he was petted and caressed, and wrote an anthem for four voices for the British Museum, which still possesses the manuscript. At ten he wrote an oratorio and astonished the Dutch by playing the organ at Haarlem, which was then the largest in the world. Then he returned to Vienna and wrote his first opera; at thirteen his father took him to Italy.

The programme of a concert at Mantua, January 16, 1770, exhibits Mozart's versatility at the age of 14. A symphony of his own composition; a clavichord-concerto, which will be handed to him, and which he will immediately play *prima vista*; a sonata handed him in like manner, which he will provide with variations, and afterwards

repeat in another key; an aria, the words for which will be handed to him, and which he will immediately set to music and sing himself, accompanying himself on the clavichord; a sonata for clavichord on a subject given him by the leader of the violins; a strict fugue on a theme to be selected, which he will improvise on the clavichord (harpsichord); a trio, in which he will execute a violin part; and finally, the latest symphony composed by himself.

**T**HE story is almost unbelievable. At Milan the boy was commissioned to write an opera; at Rome he heard Allegri's "Miserere," and, returning home, set it down note for note. This prodigious musical memory was his throughout life. "Don Giovanni" was produced at Prague on October 29, 1787; the night before not a note of the overture had been written; Mozart got his wife to read to him, to keep him awake, and wrote down in a night what was in his head.

Mozart fell in love with a first cousin of the composer Weber—and she would have nothing to do with him. He then married her sister, who was feckless and thriftless, like Mozart. When Mozart died, at thirty-five, he was buried in a pauper's grave. These two facts have led to a great deal of sentimentalism, but sentimentalism is thrown away on Mozart. It was a great pity that he should die so young; but, dying, he would hardly bother about his grave. As for his wife, she was really just the wife that suited him. He lived for music, and she was content that he should. He kept on beginning works dedicated to her, and never finished any of them; the fact throws light on both of them; but they were not unhappy. Mozart all his life was

poor. He was one of those gay spirits to whom ten pounds seems like a fortune; so long as the daily bread was forthcoming, large offers of salary meant very little to him.

Composers, in those days, could make very little unless they obtained court posts. Their works were published, but then publications were sold in very small numbers; and modern notions about copyright did not exist. There was a small salary from the Archbishop of Salzburg; there were occasional fees for producing operas to order; one way and another the wolf was kept from the door, and Mozart managed to remain in his small, dark room and compose as vast and varied an array of works as any musician of his age has ever produced.

There are all the operas—"Don Giovanni," "Il Seraglio," "Cosi Fan Tutti," "Figaro," with others; the total number is twenty-three—mostly seldom or never performed. There are twenty masses, including the great "Requiem," which was left unfinished and piously completed by a friend, and which contains what he thought the best tune he ever invented. There are forty-nine symphonies, twenty-seven pianoforte concertos; there are hundreds of songs, organ sonatas, violin sonatas, quartets, piano sonatas, and pieces composed

for all sorts of strange combinations of instruments — and even strange instruments — by this man who was as curious as he was sensible. His mastery over music was complete; his emotional faculty was all-embracing. He was the greatest of all comedy-opera writers, and he might, given time and a suitable librettist, have been the greatest of all the composers of tragedy-opera.

The tragic was not dominant in him. The typical Mozart air is light and pellucid, with a touch of tenderness and a touch of sadness, northern sorrow only just impinging upon southern gaiety, yet in places—as in the tremendous entry of the statue in "Don Giovanni"—we feel that he had a great dramatic and tragic power in reserve; and in some of the symphonies (notably the "Jupiter") we feel that he is saying all that Beethoven has to say, and saying it more reticently.

Mozart is one of the brightest stars in the musical firmament. His music breathes the warm-hearted, laughter-loving artist, living in and for art, whose genial nature all the slings and arrows of outrageous fortune might wound, but could not embitter. Joy is the keynote of his compositions; the rare note of tragedy or mourning is but a brief minor episode. From an instinctive repugnance to demonstrative excess of feeling, flowed plastic serenity of form; in his heartfelt melody German depth of emotion is expressed with Italian frankness, making his great dramatic works perennially fresh. That his piano works are less so is due chiefly to a centry of progress in technical means of expression; yet his D major concerto of 1788 (for example) still charms by suave euphony, like many lesser pieces. Among his symphonies the "Jupiter" in C, and those in G minor (1789) and E flat, are prominent. In finish of form,

Chernubini and Mendelssohn are most akin to Mozart; in soulful melody, Schubert is his lineal successor. Like Schubert and Mendelssohn, his productivity was astounding and embraced all departments of musical composition.

## Radio Amateurs

### Upper Hutt Society

THE Upper Hutt Radio Society made a very promising start on Friday last, when an evening's entertainment was held in the Princess Hall, Upper Hutt. A large number of the younger generation were present, and a keen interest in the proceedings was maintained. Prior to commencement, half an hour's gramophone recital from two radio receivers of well-known makes was given.

On the stage were several sets of different types, including a Browning-Drake and a crystal set. During the evening the Browning-Drake, in conjunction with a horn speaker, was used to demonstrate the progress made by radio technique.

The chiming of 2YA officially opened the meeting, and then Mr. A. J. McCurdy, president of the society, addressed a few words to the gathering. He spoke of the early history of radio saying how experiments dated as far back as 600 B.C. He continued and outlined the excellent aims and objects of the society, urging co-operation between listeners for their mutual benefit. In country districts where technical service is not readily to hand an institution like this should flourish. It aims to teach its members how to look after their own sets, and to provide free service for those who are not able to undertake this.

He then introduced the next speaker, Mr. Colin W. Smith, of the "Radio Record," who spoke for a few minutes on the excellent work that the amateur enthusiast had done and was doing for radio. He referred to the great achievement of the amateur when he made short-wave broadcasting possible. He conveyed to them best wishes for success.

The next speaker was Mr. Preston Billing, a very well-known Wellington radio engineer. Mr. Billing presented a specially prepared address on the elements of radio. He used a blackboard to sketch out some of the circuits, and interested listeners with comparisons of the machines on the stage. Mr. Billing's address was listened to with great interest, and he evidently left quite a good impression on the minds of many of the younger folk, whom he urged to take up radio seriously, as there was a great deal to be done. "In a few years," he said, "television will be with us, and it may be one of my young audience will discover how to make it a commercial proposition." At the conclusion of the address further items, both radio and gramophone, were presented. During the earlier part of the evening power interference had spoilt reception of 2YA, but later it cleared up, and the Australian and other New Zealand stations could be received quite well. After this a vocal item was rendered and met with great approval, and the meeting concluded after a few further demonstrations. Keen interest is being shown in its activities in Upper Hutt, and a strong society should result.

## Unusual Experience

### Crystal Set Transmits

THE Editor of the Melbourne "Listener-In" received a report from a most unusual radio experience from a Tasmanian listener: "I happened across a peculiar transmission yesterday. I was warming up my set, preparatory to tuning to our local station's afternoon service. I had given the set more than the usual amount of reaction, and as I tuned toward 7ZL's wave-length I ran into a patch of strange voices. The spot was very near where I pick up 7ZL. I could pick up four voices and the conversation was just the everyday talk, and was quite unlike any broadcast I had ever heard. The voices were a bit hollow, as if talking at the end of the room away from the 'mike.' This went on for about five minutes, and then 7ZL started broadcasting and put a stop to it. I thought at the time that probably 7ZL had some visitors in the studio and the 'mike' had been inadvertently left open, but I thought it strange, as I couldn't get the generator hum, for I am in their shock area. After 7ZL's transmission finished, I tried again, and this time the strange 'transmission' was much better, the voices being much nearer to the 'mike.' By adjusting my set controls I was able to fill my speaker, and could hear every word and noise from this 'new' station. At last out of the peculiar style of entertainment I got the names of the 'artists,' and on logging them I found that they were those of a family of neighbours, three doors away.

"I made inquiries, and found they were using a crystal set, and they had been trying a small cone loudspeaker on it. When I got them to speak near to this speaker, or 'mike,' which it had turned itself into, their voices roared in at my end."

## Australian Licenses

SOME interesting figures are revealed in a statement from the Postmaster-General's Department of the Australian Government. This sets out the number of licenses in that country as follows:—

	Number.	Per 1000 of population.
New South Wales	117,515	4.74
Victoria .....	144,825	8.13
Queensland .....	24,193	5.57
South Australia ..	28,002	1.82
Western Australia	7,547	1.80
Tasmania .....	7,587	3.52
Commonwealth	330,169	5.13

## The Sun Never Sets on the I.C.S.

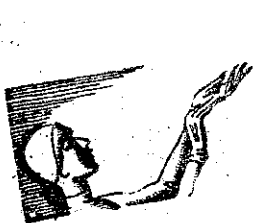
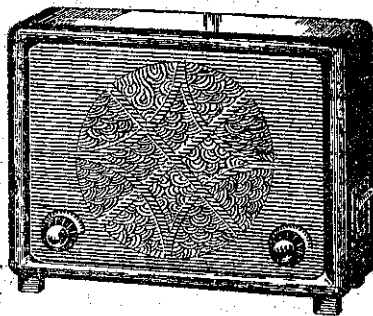
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# Free Use of Records Forbidden

## Gramophone Companies Place Restrictions on Radio Trade

### ALL STATIONS AFFECTED

ALL broadcasting stations have had, from November 1, to cease broadcasting records that are not their own property. This, according to the Listeners' League, who waited upon Mr. Taverner, Minister of Public Works, recently, will mean that many private stations will be forced off the air. In Dunedin only one station will continue to operate and this is owned by a gramophone agency.

Mr. Taverner, in reply, said he knew from a very recent conference which he had had with the Hon. J. B. Donald that the Postmaster-General was anxious to do all he could to stabilise the position and place it on a reasonable basis, which certainly did not exist at present. With regard to the apparent imposition, they would find his colleague very sympathetic.

There was a general feeling that this sort of control had gone beyond reasonable limits. Just what powers the makers of records of the Performing Rights Association had in New Zealand law, he was not in a position to say, but he had reason to believe that that aspect of the question was receiving Mr. Donald's attention.

Mr. Donald had also told him that it was his intention to inform Cabinet that it was not the Government's intention to go in for programme work. The Postmaster-General would probably welcome the assistance of the league.

The message from Dunedin stating that B class stations would have to cease operations after November 1 was referred by a representative of the Wellington "Evening Post" to the managing director of one of the chief gramophone record distributing companies.

He said that such statements were very misleading, for the record distributors had no intention whatever of forcing stations off the air: what they did insist upon, however, was that a fair deal should be given the music trade.

The real position could best be put by quoting from a circular letter sent by his company—very similar letters being sent by all the other distributors—to their retailers:—

"Under instructions from our principals . . . we beg to advise you that on and after November 1, 1930 . . . records are not to be supplied to A or B class broadcasting stations, except they be purchased in the ordinary class of business at retail prices.

No records are to be loaned, given, or sold at less than retail prices.

"There is the whole thing," he said. "We are not saying that the broadcasting of records has to cease: we have no power to say so, but we do say that the stations, either A or B, should purchase those records. The broadcasting of records is a straight-out business proposition: there should be a business return to the people who depend for their livelihood on the sale of records. Record manufacturers are facing a tremendous falling-off in business, very largely due to indiscriminate broadcasting of records. As is clear from the circular letter we are making no difference between A and B stations.

"Surely the Radio Listeners' League, which, I presume, is composed of business people, will recognise that we are asking a fair thing and will be only too glad to assist legitimate business.

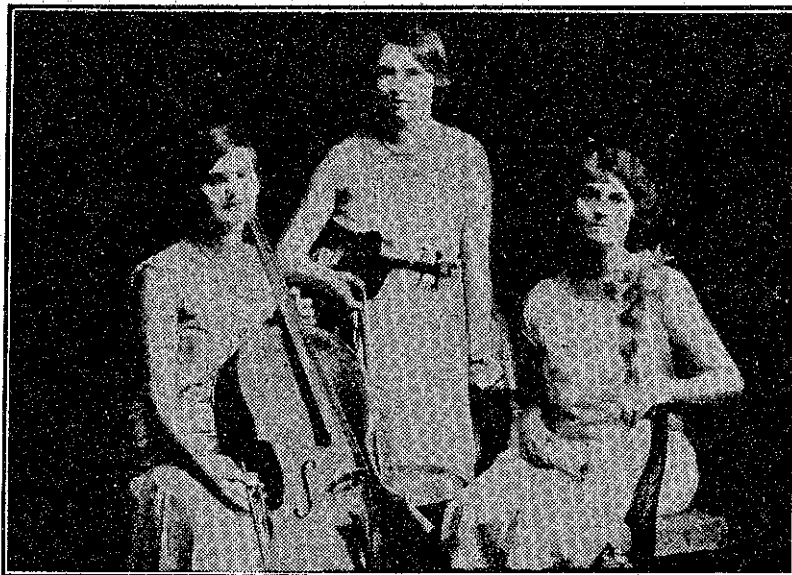
ness by arranging for the quite moderate funds required."

#### Common-sense Broadcasting.

THERE was a great deal of difference between common-sense broadcasting and indiscriminate broadcasting, he continued. It was the latter type which worried the record traders.

Either one station or another would be on the air from breakfast time to bed time, before breakfast sometimes.

In some cases retailers who were station operators had adopted a neat trick when announcing records broadcasted by them, of giving a special shop code number. A listener might like it and decide to buy, and the only shop where that code could be understood would be the broadcaster's. They therefore insisted that retailer-broadcasters should announce the standard number on the record, and not a "fake" special shop number.



THE SALON TRIO, consisting of Miss Jean Clarkson (cello and piano), Miss Helen Gray (violiniste), and Mrs. Freda Evans (soprano). A combination of artists who are heard from 1YA. —S. P. Andrew, photo

and certain records were so effectively killed by endless repetition that no one wanted to hear them again, let alone buy them. It was for this reason that the record traders were asking dealers who were also station operators to eliminate request items altogether.

A record might be put on Monday afternoon; that evening someone rang up and asked for it again; it went on. On Tuesday there was another request, and on it went again, afternoon and evening; and thereafter, to make sure of pleasing a lot more requesters it stayed on at least once a day for the rest of the week. Not only were listeners sickened of that record over the air, but they were made far too sick to buy it.

#### Further Views.

SUPPLYING records free for broadcasting purposes had been doing the gramophone concerns a tremendous amount of harm, said Mr. W. U. Webley, of Webley, Sons, and Gofton, to-day, when the complaint made to the Minister of Public Works (the Hon. W. B. Taverner) by the executive of the New Zealand Radio Listeners' League was referred to him. He contended that it was quite just that broadcasting stations should pay for the records which they put on the air.

"The instructions to stop the supply came from Australia in the first place," said Mr. Webley. "Broadcasting stations are commercial propositions, just as we are. Hitherto they have been

freely supplied by wholesalers and retailers, without cost to themselves, and such a practice has been doing us a tremendous amount of harm. The position has been that the same record was broadcast so often that listeners became sick and tired of it through this continual repetition, and would not dream of buying it for their own gramophones. Continuance of the old policy might keep the radio people on the air, but it certainly will put the small gramophone dealer out of business.

"The Australian Performing Rights Association is insisting that any record broadcast shall not be given more than once a day for the first 14 days after the station gets it, and only once a week after that. That restriction, I am certain, will be welcomed by listeners."

#### Another Explanation.

WHEN interviewed by a "Sun" reporter concerning the above statements, Mr. A. R. Harris, general manager of the Radio Broadcasting Company, said that the position as stated by the gramophone people permitted of another explanation, as far as the A class stations were concerned.

"In the past, the broadcasting stations (A as well as B) had enjoyed the privilege of being lent the necessary recordings and the broadcasting of them has all along been recognised as being beneficial to the record selling business.

"Only comparatively recently has this view changed, due, according to Mr. Webley's statement, to instructions received from Australian interests.

"As far as the A stations are concerned, and apart from the records lent by the gramophone companies, the Radio Broadcasting Company owns a large library of thousands of recordings all purchased from the dealers, and great care is taken that these are not broadcast with undue frequency.

"As for Mr. Webley's statement that records are broadcast until listeners are sick and tired of them, this is pure camouflage, as those records lent to the broadcasting Company are not broadcast more often than at monthly intervals, and then only of considered acceptable to the listener.

"Apart from the fact that it is unwise for the Broadcasting Company in its own interests to overdo any item, the remedy has always been in the hands of the local dealers, whose wishes in every way the Broadcasting Company has always endeavoured to respect as far as it is practicable to do so.

"As has been explained by Mr. Webley, instructions have come from Australia. The New Zealand gramophone dealers must make out as good a case as they can for their principals, but the instructions received will hit some of the 'B' broadcasting stations rather hard. Some of the 'B' stations are run by gramophone dealers, and we understand that they will not be affected by the new conditions, but the other B grade stations which rely on the loan of records will suffer severely."

#### Wellington "B" Station.

DESPITE the embargo on the broadcasting of records, plans for the erection of 2ZW, Wellington's new B (Concluded on page 27.)

# The New Zealand Radio Record

—AND—

## Electric Home Journal

(Incorporating the "Canterbury Radio Journal.")

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WELLINGTON, FRIDAY, NOVEMBER 7, 1930.

### ANOTHER BROADCASTING PROBLEM.

THE troubled sea of New Zealand broadcasting does not appear to be settling. Only a few weeks ago we learned that the Performing Rights Association was going to push its claims and that the "B" class stations would go off the air on September 1. The situation was finally adjusted, and the "B" stations are still operating. Then followed the unexpected and far-reaching statement that at the expiration of the Broadcasting Company's license it would not be renewed, that the Government would directly control broadcasting and that "B" stations were to be encouraged. Following this was the amplified statement that all was in the melting-pot. Now comes the ultimatum from record distributing companies that after November 1 free supplies of their records to all broadcasting stations must be cut out completely. In this respect no distinction has been made between "A" and "B" stations, and many of the latter have intimated that it will be impossible for them to continue after the date nominated.

That the Government was anxious to stabilise the position was assured a deputation of the Listeners' League who waited upon Mr. Taverner, Minister for Public Works, but just what this will mean in terms of direct action has yet to be seen. In the meantime stations either pay retail price for the records of the companies issuing the demand or cease to broadcast them. It appears that only the main record companies have made this demand.

As Mr. Taverner states, just what power gramophone companies or the Performing Rights Association had under New Zealand law is not perfectly clear. In effect the demands are directing retailers as to what they shall do with property they have paid for and just how far this demand is legitimised under New Zealand law remains

to be seen. Violation of the demand would probably bring about the cancelling of the record supply—it is hard to conceive that it could do else—and on a large scale this must reflect upon the sale of the records and give the unrestricted records prominence on the market.

One of the main points advanced by the gramophone companies is that, at present, records are used indiscriminately and that, in certain areas, broadcasting commences before breakfast and continues till 11 p.m. and sometimes later. It is asserted that listeners become tired of the records and sales are killed thereby. Furthermore the indiscriminate broadcasting of request programmes is obviating the necessity for listeners to purchase records. This statement is borne out by a distributor of a well-known electric radio set. He asserts that the sales of gramophone and radio combinations are in inverse proportion to the number of radio stations in the district. Thus Dunedin, with the most stations, handles very few combinations, though the solo radio model sells well. In Wellington, where there is only one station, the sale of combinations is greatest in proportion to solos. This fact agrees with a statement made by one of the music houses to the "Record" that their sales of records had been greatly increased as a result of broadcasting, and that they considered any records loaned to the station did them good service. From this angle unfavourably in the interests of listeners and indeed the stations have it seems conclusive that the large number of stations has reacted brought about their own doom.

There is another and very unfair aspect of the situation. Records broadcast must be bought at retail prices. This may seem a good move on behalf of the companies, but how does it affect the position? Many "B" stations will be unable to pay for the records and the owners must either close down or receive a subsidy from the Government. When it is considered that money spent on records cannot be directed into other amusement all stations must suffer, and if the "A" stations must be subject to another drain, the quality of the broadcasts must necessarily fall. Thus the listener will suffer and already, in many cases, he complains of the quality of the fare. But the main injustice is done to organisations that are not music houses. These latter purchase their records at wholesale rates and even supposing they keep a separate library for no other purpose than broadcasting, they are on a definitely better footing than other stations. They are given a unique monopoly and whether the Government will tolerate this remains to be seen. It is significant that whereas many "B" stations not interested in the sale of records consider they will have to cease operation a new station, in which a Wellington music house has interests, is under construction, and we are assured it is to be completed and to go on the air from December 1.

The radio trade, especially those members who are interested in broadcasting, are being handicapped and an advantage is given the retail gramophone business. On the surface it appears that the warrants issued by the gramophone companies have been brought about by a motive that takes into consideration only the record trade, and has entirely neglected the listener, the radio trade and broadcasters. How this will ultimately act on the public and react upon the trade of the companies concerned must be left to the imagination. In the meantime the position remains.

### Hum Level

### Reduction in Transmission

FROM time to time listeners have written either to us or the Broadcasting Company commenting on the noise level in the transmissions of some of the stations. Many have remarked that 2YA is particularly bad, and the hum is sometimes most annoying. To combat this the chief engineer of the Broadcasting Company paid a special visit to Wellington recently, and has succeeded in greatly reducing the noise level. This is due mainly to the great distance between the studio and the transmitter, and the necessity for using a long land line. There are always parasitic noises on these, and when

they are amplified at the transmitting end the noise level is fairly high.

To overcome this amplifying gear has been transferred from the station on the hill to the modulating room of the studio. This means that the percentage of noise to signal has been materially reduced. Listeners will no doubt note the greater clearness of 2YA's transmission as a result.

### Celebrities Broadcast

IGNACE Paderewski broadcast a piano recital in London recently to the delight of British and Continental listeners-in. Bernard Shaw recently appeared before the microphone, and is quoted as saying he enjoyed the experience. His hearers liked his talk.

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## Musical Renaissance

## Due to Broadcasting

**PUBLISHED** in a contemporary is an interview with Mr. Carl Atkinson, well known in the music world of New Zealand for his lecture recitals at IYA and as musical consultant for Messrs. Howles Ltd., of Auckland. Music making and the pleasures of listening were once the privilege of the wealthy. To-day they are within the reach of all—to-morrow they will be as much a part of our daily lives as eating and sleeping. And the most important factor that is speeding the coming of the "Musical Renaissance" is the gramophone, says Mr. Atkinson. It is fifty years since the gramophone came into existence, and within the second half of that half-century the interest in music in New Zealand, and, indeed, throughout the world, has outgrown all previous conceptions.

Interestingly recalling the old-time "musical evening," Mr. Atkinson remarks: Then came the gramophone, the player-piano, the radio, and finally the astonishing vitaphone. Most musicians and music lovers rejoiced upon the discovery of these marvellous means of preserving musical genius and disseminating master interpretations.

As Mr. Atkinson says, the gramophone, and of more recent years the radio receiving set, are materially contributing to improved musical taste. With his remarks Mr. A. R. Harris, General Manager of the Radio Broadcasting Company, heartily agrees. He opines that even the most biased listener must often experience a thrill as he hears a recording, made perhaps a year ago in Berlin, London or New York, when an orchestra sat down and played, and now is heard, through means of gramophone and radio, by people living in cities, towns and villages and on the most out-back farms in every land throughout the world. The gramophone cabinet has eclipsed Pandora's box.

## 4YA Silent

## Playing With Fire

**A** CURIOUS happening put 4YA off the air for a few minutes one evening recently. Investigation found that it was due to a misadventure which befel an inquisitive mouse which was prosecuting researches among the wires of the transmitter. He caused a short-circuit, and subsequent proceedings interested him no more. He had enjoyed an ambitious, but brief, career as an investigator in radio matters.

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## Enlarged Schedule for YA Stations

## Popular and Dance Music Receives Prominence

**FROM** December 1 an enlarged programme schedule will come into operation at the YA stations. The rota which has hitherto been followed has proved very acceptable to listeners, providing as it has done a choice of a variety of entertainments, and listeners will cordially welcome the extension of the service as shown in the schedule published below. Devotees to the lighter forms of entertainment will be specially pleased.

The schedule, according to which the programme organisers at the various stations prepare their entertainments is designed to provide listeners throughout New Zealand with the choice of programmes of the greatest possible variety, and is so arranged that, as far as possible, four programmes of different types are broadcast nightly by the YA stations.

This specially applies to four nights of the week. A glance at the schedule will show that those who appreciate a band concert can listen-in to such a recital, from one New Zealand station or another, on any of the four nights, but on no evening are any two stations broadcasting a band concert. For instance, when a band is performing at 3YA a programme of a different nature is coming over the air from 2YA and 4YA. Those listeners in search of operatic and classical numbers on any evening can tune in to the station broadcasting that type of entertainment.

On the Friday and Saturday evenings, variety and vaudeville programmes are broadcast from all stations, the concert sessions being a pot pourri of all manners of things. Sunday evening is, of course, devoted to the broadcasting of church services, followed by an appropriate concert.

The schedule of programmes published below is worthy of careful analysis by all listeners. In future, operatic and classical programmes, hitherto occupying two evenings, will be coalesced into one and will be followed by a session of dance music. Thus, one more night every week from every station will be devoted to a concert of the "popular" type.

From one station or another, on every week night, dance music will be broadcast. Dance music will be available from 2YA on three nights of the week and from 1YA, 3YA and 4YA on two nights. On Saturday evening all stations have a dance music session.

## THE NEW SCHEDULE.

	1YA	2YA	3YA	4YA
Monday .....	Silent	Operatic-Classical and Dance	Band	Popular
Tuesday .....	Operatic-Classical and Dance	Popular	Silent	Band
Wednesday ..	Band	Silent	Popular	Operatic-Classical and Dance
Thursday ....	Popular	Band	Operatic-Classical and Dance	Silent
Friday .....	Variety	Variety and Dance	Variety	Variety
Saturday ....	Vaudeville and Dance	Vaudeville and Dance	Vaudeville and Dance	Vaudeville and Dance

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## Song-Writing Competition

## Winning Entry Decided

**THE** judging of the 333 entries received in the song writing competition promoted by the IYA Musical and Dramatic Committee has concluded, and the award of the judges, Messrs. A. Mulgan, James Tait and A. B. Chappell, M.A., is as follows:—

Winner: Mr. W. F. Chambers, Wellington.

Very Highly Commended: Miss Patricia Lusher, Auckland.

It is the intention of the IYA Musical and Dramatic Committee to hold another competition in connection with this poem, when a prize will be offered for the best musical setting for the words.

The winning poem is entitled "Love's Gift," and it reads as follows:

*I have no flowers to give thee  
(No garden do I own)  
Save these few violets I found  
Beside a mossy stone.*

*I have no songs to sing thee,  
A sorry minstrel I,  
But God's own lark shall sing for me  
His love-songs of the sky.*

*I have no gifts, Beloved—  
The silver stars above  
Bear witness of my poverty:  
I have no gift, save Love.*

## 4YA to Broadcast Series of Special Programmes

**A** SERIES of interesting programmes is scheduled for 4YA next week.

On Monday, "A West Country Revel," an entertainment symbolical of life in the western counties of merry England, will be broadcast.

On Tuesday there is to be another original programme, entitled "Life in India with the British Army." This will be provided by the St. Kilda Band, with descriptive and explanatory remarks by Major Lampen and songs by Miss F. Elmes.

An entertaining interlude will be provided in Wednesday's popular concert, when a well-known Dunedin auctioneer will describe a day in the life of an auctioneer.

On Friday there will be a "Mozart programme."

Somewhat similar in idea to "A West Country Revel" will be 3YA's programme for Thursday, November 13, when "The English Countryside" will be presented. This programme will depict an English country day, from sunrise to evening.

Next Monday evening 2YA will be broadcasting Spohr's oratorio, "The Last Judgment," to be presented by the combined Anglican Church choirs.

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## A Fascist Decree

AN Italian lawyer, who was recently arrested at Nice and charged with broadcasting anti-Fascist news from his villa there, has been sentenced in Rome to imprisonment for 10 years and nine months to be followed by three years of police supervision. A clear indication of the importance attached to radio as a means of reaching the people.

## A Questionable Device

A FRENCH inventor has developed a speaking signal for motor-cars. Just in front of the driver is a microphone. As a pedestrian starts across his path the driver, without raising his voice, says into the instrument, "Look out, please; you'll get run over!" Some New Zealand motorists we have met would scarcely be so polite.



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# More Australian Stations

## Eight "B" Class Near Completion

BEFORE the end of the year eight new "B" class broadcasting stations, all Australian-made, will be operating in various parts of Australia, making the total number of broadcasting stations thirty-one.

Sites of the stations are Brisbane and Townsville in Queensland; Albury, Moss Vale, Goulburn and Canberra in New South Wales; Bendigo in Victoria; and Launceston in Tasmania. It is understood that the licensees contemplate tying up with class "B" stations, 2UW, Sydney, and 3DB, Melbourne, for the purpose of relaying over the entire network programmes originating in the capital cities.

In each case the contract for the design, manufacture and installation of the transmitting equipment has been secured by Amalgamated Wireless, which company is now busy manufacturing the apparatus in its new radio-electric works at Ashfield, near Sydney. The plant is of the most up-to-date type, the transmitters being provided with both crystal control and master oscillators. None of the stations will be of high power, but modulation of the carrier wave to the full 100 per cent. will give an effective range far beyond what might be expected from the nominal rating.

Full information concerning the stations is not yet available, but the following details have been procured:—

THE Albury station is 2AY, the license being held by Mr. C. Rice, proprietor of the Mid-State Radio Company. The masts are 75 feet high, and the station will operate with 50 watts of power in the aerial. On a wavelength of 227 metres (1320 kc.) a service of about six hours a day will be given, including relays of 2UW, Sydney, and 2DB, Melbourne.

The Brisbane station, 4BC, the license of which has been granted to J. B. Chandler and Co., is already in operation—or at least a temporary plant has been installed pending the construction of a new and up-to-date transmitter. This will be a modern instrument working on a wavelength of 223 metres (1345 kc.), with a power of 200 watts in the aerial. The masts are 160ft. high, giving an excellent range. The studio is situated in the offices of Chandler and Co., Adelaide Street, Brisbane.

THE Launceston Station, which will be owned by Wills and Co. Pty., Ltd., will be known as 7LA, and will have a power of 200 watts in the aerial. On a wavelength of 273 metres (1100 kc.) this station will be heard throughout Tasmania and on parts of the mainland of Australia. The site of the transmitting station is three miles from the Launceston Post Office, being the highest point outside the city, approximately 650 feet above sea level. The studio will be in Findlay's Buildings, Brisbane Street, Launceston. As Wills and Co. Pty., Ltd., are a well-known musical firm well established in the musical life of Tasmania, it may

be anticipated that the programmes of 7LA will set a very high standard.

At Moss Vale (2WL) will be a 50-watt station of the latest type, and will be located a mile from the town on a high elevation. The studio will be situated at the transmitting site. This station will be owned by a company formed from the business com-

### Race Week at 3YA

During Carnival Week in Christchurch, when there will be race meetings daily and the annual show at Addington, 3YA will be busy. Special arrangements have been made for securing and broadcasting the race results as promptly as possible, and holiday programmes have been arranged for each evening. There will be no silent day.

munity of the district. The wavelength will be 201 metres (1490 kc.), and as the apparatus is well under way, it is expected that 2WL will be on the air early in December.

The Goulburn Station will be similar to that of Moss Vale, having masts of 120ft. high and a power of 50 watts in the aerial. The site of the transmitting station is 1½ miles from the town on a hill 200ft. or more in height. The license for this station is held by Russell's, Ltd., a well-known firm of radio dealers.

Canberra, Bendigo, and Townsville stations, which are still in the embryo stages, will be similar in type to the Albury station.

MR. A. J. RYAN, of Canberra, has been granted a "B" class license for a station in Canberra, Federal Capital Territory. The station is now being tested under the call sign VK2LE on Sundays between 5 and 12 p.m. (New Zealand time), and at various unscheduled times, when 2BL is off the air. The present wavelength is 285.7 metres (1050 kc.), which will be increased in a few months' time to 480 metres (625 kc.). The station has an unmodulated aerial power of 50 watts, and the call sign, when it commences regular services, will be 2CA.



## Tips and Jottings

A SLIGHT smear of oil, followed by a polish with soft, clean duster, will often restore an ebonite panel that has gone "off-colour."

IF the aerial is allowed to touch or swing near a gutter pipe, tin roof, or similar large metal surface, you may be troubled by "fading."

IF you are troubled by loud speaker rattle do not forget that this is sometimes due to a small nut becoming loose.

WHEN two aerials run close together there will be interaction between them, and this will affect the selectivity of both sets.

KEEP your aerial as far away from your neighbour's as possible, as running them close together will give rise to many undesirable effects.

ONE of the lesser known advantages of the output filter circuit for the loud speaker is the fact that it frequently improves stability, more so in shortwave.

"B" BATTERIES which are partly run, down will often give rise to buzzing and cracking noises which are particularly noticeable if good audio transformers are used in the set.

ONE old-fashioned cure for electrical interference picked up from adjacent electrical machinery is to try a new earth. A fixed condenser placed in series with this can often eliminate or greatly reduce hum.

IF your detector seems to work just as well without a grid leak as with one, it is possible that there is a leak across the valve holder or on the base of the valve.

GENERALLY speaking, it is inadvisable to modify the circuit of a portable set except to a very small extent, owing to the fact that there is no space to spare in such a set.

MANY experimenters have found that better results may be secured in the operation of screen grid receivers if the lead between the coil and the cap of the valve is shielded, and in some cases earthed. An inexpensive makeshift for this purpose may be arranged by taking a piece of insulated wire, such as rubber-covered stranded wire, cutting pieces of tinfoil 4in. wide, and 4 or 5in. long, and then winding these strips of tinfoil smoothly around the rubber covering on the wire. After this operation, a flexible wire may be bound round the end of the tinfoil and then taken to earth, if desired.

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## Notes and News from the North

AN interesting new artist who is to be heard from 1YA during November is Mr. Bert Skeels, late of the Westminster Glee Singers. Mr. Skeels, who terms himself a male alto, will sing from the Auckland station for the first time on November 21. Another new singer, Miss Norma Calder, contralto, will be heard from 1YA on November 23.

ALONG interesting programmes to be given from 1YA during November are the following:—Wednesday, November 26, the Auckland Training College Glee Club in choral and solo items, and also a sketch entitled "Walking Off" by Mr. O. H. Box; Thursday, 27, concert by the Orpheus Club, assisted by Mr. Frank Sutherland; Friday, 28, a full evening's programme of dramatic sketches and solo items arranged by Mrs. Zoe Bartley-Baxter; and Saturday, 29, a special St. Andrew's Day programme, including items by the Auckland and District Highland Pipe Band, Miss Rita MacCullay, vocalist, and Sandy and Mac, humourists.

THOSE Auckland listeners, and they were numerous, who sat up late on Saturday night and early on Sunday morning to hear the results of the New South Wales elections, were well repaid. Reception of both the Sydney and Melbourne stations was excellent and the manner in which the results and figures were announced made the broadcast most interesting.

WHO would not have a radio receiving set? The set on which "Call Up" has lately been doing most of his listening was built at a total cost of three shillings and fivepence! It is only a humble crystal, but it brings in 1YA as clearly as could be desired and when that station is not on the

air can pick up 1ZB, Auckland. The aerial used is the wire mattress of the bed in which the writer sleeps.

THE Auckland Radio Society is not a very active body nowadays. In the winter their activities lapse owing to the icy atmosphere of their meeting room and in the summer there seem to be too many other diversions. No doubt this inactivity is quite a good sign and indicates a state of fairly general satisfaction with radio matters in New Zealand. All the same, it is often helpful for radio enthusiasts to meet and exchange news and views and it seems a pity that this society does not do more to keep radio enthusiasts together.

THE items from 1YA by the Congress Hall Band on Wednesday evening were enjoyable and it is to be hoped that this band will be heard over the air again. The contract for the broadcasting of the Municipal Band has still not been arranged for the next twelve months and listeners have not heard the band for some weeks. Even if the contract is not renewed, the Congress Hall, Birkenhead and Devonport United Bands should be able to provide Auckland listeners with good music.

## Tightening Terminals

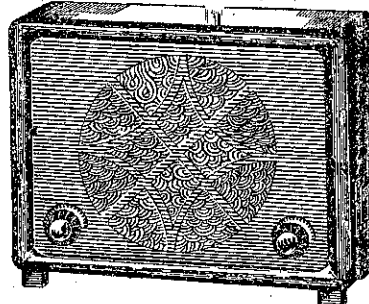
HOW many enthusiasts make a point of testing the tightness of all terminals before screwing down the parts. Much annoyance is saved if this rule is followed, as there is generally at least one loose terminal in, say, three or four valve holders. A hot soldering iron invariably seems to loosen an already loose contact, and when connecting wires are being tightened down by screwing home the nut of a terminal the least slackness will allow the terminal to work loose.

## Laboratory Jottings

### Blue Spot Receiver

THERE is no doubt that the popularity of the local station receiver is becoming progressively more popular, and the introduction of another low-priced electric receiver will be welcomed. This is the Blue Spot local station set, the New Zealand agents for which (Messrs. Scott and Holladay) have supplied us with a receiver for test.

In appearance it is decidedly neat. It is self-contained, small, light and portable. In the front are the grille



covering the speaker and the two controls—tuning and reaction. It is well-finished, properly balanced and unique in appearance. At the back are the protruding valves, three in number, rectifying detector and power valve, two sockets for the aerial plugs, earth terminal, plugs for a gramophone pickup, a wave change knob and a diaphragm adjuster. To safeguard the valves from falling out or becoming dislodged, they are held in position by spring caps.

For local station reception, the set can be regarded as a portable. It can be shifted to any part of the house, or even outside, providing there is a light socket handy, and with a small piece of wire be made to work at excellent strength. We used the set for this purpose and found that it would receive quite well with a piece of insulated wire 10 feet long laid anywhere handy. There was no need to erect a proper aerial. One of the aerial sockets is specially designed for this type of aerial for it is tightly coupled to the aerial circuit and makes use of the slightest impressed signal. The other terminal we found of little practical use, for although its use resulted in quite loud signals and sharp tuning, it was nevertheless of no great value, as selectivity is not required in such a set.

The tone of this set is good, all things being considered. It is distinctly in the leading class of this type of set and very enjoyable tone is secured. It uses an adjustable cone speaker of the "Blue Spot" type and this is an undoubted assurance that the quality will be as good as that type of cone is capable of producing. It will handle quite comfortable room strength without rattling, and as a gramophone amplifier it is quite as good as the table model machines.

Apart from the qualities of the instrument as a receiver of the local station, it has quite good qualities as a distance getter and can provide a considerable amount of enjoyment on the silent night. Without much difficulty we were able to receive the four New Zealand "A" stations, 2B1, 2FC and 4QG at comfortable speaker strength. This test was made quite

## Musical Thunder

MUSICAL thunder, accompanied by a vivid electrical display, was encountered by radio engineers recently in experiments with high-powered short-wave broadcasting. The thunder, created artificially, was converted into music corresponding to the input at the radio microphone. In handling powers above fifteen kilowatts on the short waves, the engineers found that vivid coronas flashed when attempts were made to modulate.

Since the power supplying the arc was modulated with music, the arc alternately collapsed and built up according to the modulation, this action setting up air-wave vibrations similar to thunder. Instead of the roar and roll of real thunder, however, it was a musical sound similar to the music being broadcast, and persons 400 feet away thought they were hearing the output of a giant loudspeaker. The arc finally melted the copper and caused the antenna to drop.

The trouble was solved when larger antenna wire was used, and a large corona plate was placed at each end, making it possible to obtain thirty-five kilowatts, perfectly modulated in the antenna, without coronas.

## Communication With Mars

THE projected attempts to communicate with the planet Mars are meeting with a great deal of comment. The latest in the field of such commentators is Edouard Branley, inventor of the famous Branley coherer. Professor Branley is decidedly sceptical of the ultimate success of such communication, even though, as he himself is inclined to believe, the radio or other waves did reach their mark.

## Time Signals from 2YA

THE advent of summer time automatically brought the Dominion Observatory time signal, as broadcast by 2YA, from 7.30 to 7 o'clock. This arrangement has not proved as satisfactory as the clock time of 7.30, and the Broadcasting Company has now made arrangements with the Dominion Astronomer for the time signal to be sent out at 7.30. For the duration of summer time, therefore, the signal (which will be one impulse instead of the three as heretofore) will be broadcast at 7.30.

early in the evening before the Australian stations had reached maximum strength. At the time of the test there were many other stations that we did not stop to identify, and anyone interested in reaching for the smaller Australian stations could derive endless fun from the set. The slow motion dial and the smoothly acting reaction makes tuning to these distant stations relatively easy.

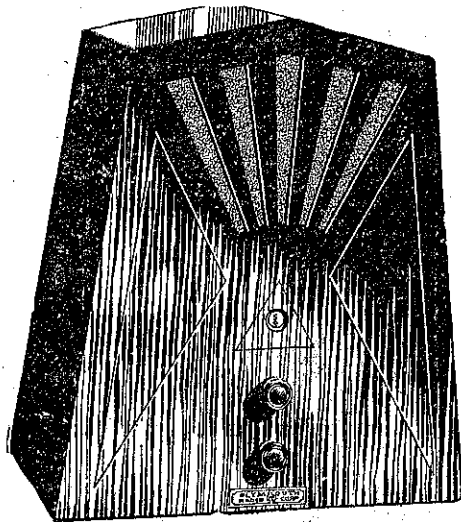
It is necessary to alter the position of the three-way switch at the back to receive all the stations usually heard. The switch covers three bands, viz., 180-400 metres, 250-650 metres and 700-2000 metres. Although this latter band is of little use in this country, many who wish to listen to the Morse in those regions will find it of interest.

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# How Broadcasting Grew from an Idea

## Story of Radio from Maxwell to To-day



It is indeed difficult to get a true perspective of the history of broadcasting, for the science, as we know it, is only a few years old. To go right to the fundamentals would take us very far back in history, back perhaps, to 600 B.C., when the magnetic effects of the lodestone were discovered. We cannot speak of the work of Faraday, of Volta and Ampere, whose researches in electricity made radio possible, but we must start with James Clerk Maxwell, the greatest theoretical physicist, Newton excepted.

Maxwell was a brilliant Cambridge mathematician, and was able to formulate a mathematical theory of the inner relations of magnetism and electricity. Maxwell likened electricity to an immaterial fluid pervading all space, and in 1865 deduced the possibility of electrical waves in space travelling onward in all directions from any electrical or magnetic disturbances, and was even able to calculate the travel rate of these waves, pointing out the remarkable fact that it coincided with that of light.

The full experimental proof of the acceptance of Maxwell's mathematically demonstrated waves did not come for 20 years, although during that time an Englishman came very near to a working system of broadcasting.

This was Professor David Hughes, who, in a series of experiments between 1879 and 1886, actually listened on a microphone of his own invention to waves that were generated as far distant as 500 yards.

Hughes was a familiar figure crouching about the London streets, bending over his telephone listening for the precious sounds. But he did not receive encouragement, and all his work went for naught. It has taken years to realise the value of his work. Of him Sir Oliver Lodge says:

"He was a man who thought with his fingers, and who worked with the simplest home-made apparatus—made of wood and metal, stuck with cobbler's wax and sealing wax. Such a man, constantly working, is sure to come upon phenomena inexplicable by orthodox science, and orthodox science is usually, too, ready to turn up its nose at phenomena which it does not understand and so thinks it simplest not to believe in."

And orthodox science turned up its nose at Hughes's work and he directed his creative brain to more profitable channels.

**B**UT Maxwell's astounding statements were not to go unchallenged, and to prove or disprove these theories the German scientist Hertz crossed over to England and commenced the first real researches in wireless telegraphy.

Hertz constructed a coil which fed high voltage surges to two balls of metal and, at a distance of some 20 or 30 feet was able, through the medium of a bent wire, to get a spark moving in resonance with the current in the balls.

This was the first oscillator, and it proved Clerk Maxwell's theory, but Hertz's discovery, limited though it was as far as voice transmission was concerned, enabled the use of the code of dots and dashes introduced earlier by Samuel Morse. Hertz did not know of Hughes's microphone, but did know the apparatus was unsuitable for commercial work, so he left the field of wireless. He had done enough to show scientists that radio transmission was possible.

Shortly afterwards, in 1891, Brandley, a Frenchman, invented the coherer—an instrument which detected the presence of wireless waves, though probably he did not then realise that the effect was produced by the waves which Hertz had discovered,

Told by  
**COLIN W. SMITH, B.A.**

a few years previously. Lodge, however, grasped the significance of Brandley's work, and in 1894 he repeated all Hertz's experiments with a Brandley coherer as detector, and signalled by wireless over distances of up to 150 yards. He also introduced the tuning coil by which stations can be separated.

**A**ND now we come to Marconi, the father of radio, but before him we must mention Preece, the English telegraphist who, in 1892, transmitted speech across the Bristol Channel, but not on the Hertzian wave. When Marconi, the brilliant young experimenter, came to English shores it was Preece who

The accompanying account is, in the main, the reproduction of a talk broadcast from 2YA on Saturday last by our Technical and Associate Editor.

introduced him to the English Post Office, and assured his footing in England. By doing this he was signing the death warrant of his own invention, for Marconi was only 15 when Hertz published the results of his experiments.

"I could scarcely conceive," he says, "that it was possible that their application to useful purposes could have escaped the notice of eminent scientists."

The boy had seen in a flash what remained unseen to all those great scientists who had been working on the fringe of the subject for several years. As Sir William Preece said: "They all knew the egg, but Marconi showed them how to make it stand on end."

Marconi, using part of the Hertzian generator, hooked up to an aerial, and a coherer for detector, developed a system which later was used to transmit the Morse code from England to France. This was in 1899, and in December 1901, just about 29 years ago, Marconi set out to accomplish his dream to conquer the Atlantic. He had built at Poldhu, in Cornwall, a powerful wireless station. The antenna system was supported by a ring of 20 wooden masts, each 200 feet high, for he had found out that the higher the mast the greater the distance that messages could be transmitted. 2YA's masts are 154 feet, so you can see that it was really a big undertaking at that time. A similar station was erected at Cape Cod, in Massachusetts, but the unforeseen happened. Storms swept both stations and destroyed the aerial systems. The inventor was not to be sidestepped by an accident, and he decided to make a preliminary test with a much more simple aerial.

On November 26, 1901, Marconi and his two assistants sailed for Cape Cod on the greatest adventure of their lives. The morning of December 12—that set aside for the great experiment—broke cold and rough. With the aerial system destroyed, a kite, carrying an aerial wire some 400 feet long, was flown in a raging gale, and at the appointed time the operators strained for the first signal to cross

the Atlantic. It was arranged that this should take the form of the letter "S"—three dots. We will let Marconi relate his own version of what happened. "Suddenly, at about half-past two, a succession of three faint clicks on the telephone sounded several times in my ear beyond the possibility of a doubt. I asked my assistant for corroboration, and he replied that he had heard the same signal.

"I knew then I had been justified in my anticipation, and that the enormous distance of 1700 miles had been bridged by radio. They had been unimpeded by the curvature of the earth, which so many considered to be a fatal obstacle, and they were now audible in my receiver in Newfoundland."

This ended the first chapter in the Romance of Radio. The Atlantic had been bridged. Now voices traverse the world, and a conference in London can be heard on a crystal set in New Zealand.

### Speech Transmission.

**B**EFORE wireless could be made commercially possible the relatively insensitive detector must be improved. However, although Sir Ernest Rutherford, the eminent New Zealand scientist, and Marconi each invented a detector, no serious advance was made until the crystal detector was developed by two Americans in 1906. Speech, however, could not yet be transmitted, and attention was concentrated on it. Fessenden, of America, was the first to achieve substantial success, and in 1900 he used an alternator for transmitting wireless telephone messages in Maryland, over a distance of a mile. In 1906 he had greatly increased the range of working and he even spanned the Atlantic, being heard at a station in Scotland. In 1908 he was working on a practical wireless telephone circuit over a distance of 400 miles. Another device for transmitting speech was the Polsen Arc, invented in 1903, and used until 1925.

### The Valve.

**I**N the early 'eighties of last century Edison noticed that when electric lamps burnt out the glass bulbs became blackened. In investigating this phenomenon Sir Ambrose Fleming, an Englishman, found the space between the hot carbon filament and a metal cylinder in a vacuum would pass current more readily in one direction than in the other.

In other words, detection could be carried out as it was with the crystal.

This was the next great advance in radio, and filled in the gap left by Marconi. Two years later, in 1906, Dr. Lee de Forest introduced a third electrode in the form of a perforated metal plate or grid.

It was the addition of the third electrode or "grid" intermediate between the other two which converted the valve into the marvellous instrument as we now have it.

For the invention of the three electrode valve, Dr. Lee de Forest, of New York, deserves well to stand in the ranks of the world's greatest inventors. For the addition of this third electrode, combined with a local battery to drive a stream of electrons from hot filament to plate through the intervening "grid" not merely enables the valve to function as an efficient converter of high frequency electrical oscillations into direct currents of proportional strength; it permits it also to function as a "relay," infinitely surpassing the delicacy of control and faithfulness of reproduction the finest mechanical relay ever yet constructed. (Concluded on page 28.)

"SWITCH" has just received advice of yet another case in Wellington where the certain sale of an £85 radio receiving set and gramophone combined was lost through local electrical noises. The prospective buyer had the set on trial for over a week, and neither he nor the radio trader was able to bring in outside stations so that they could be listened to with any degree of pleasure. All day and throughout the night the roar of electrical noises persisted.

THE trader who mentioned the above fact to the writer stated that he had missed many sales in Wellington through electrical leakages. "Switch" was invited to visit the prospective buyer's home, and the trader's report was confirmed. There was a constant roar which would drown any station excepting 2YA. The locality is within a stone-throw of the intersection of Courtenay Place and Kent Terrace.

THE above raises the question whether the P. and T. Department is carrying out its duty to listeners. A percentage of every license fee is retained by the P. and T. Department, and one wonders what return the listeners receive from the department. There are a certain number of radio inspectors, but are their services wholly devoted to assistance to broadcasting or are these men engaged in other duties?

"STRANGLER" (Kilbirnie) writes: "I quite agree with your criticism of the commentators at wrestling matches. There has been far too much of the 'I' about some of these gentlemen. Another thing, too, is that during the one-minute spells between the wrestling rounds instead of giving us the score up to the moment they have talked a lot of uninteresting twaddle. Listeners, and there must be many like myself, sometimes accidentally miss the first round or two and are anxious to know how the bout has gone up till the moment they tune in."

"TIP-TOP" (Thorndon) writes: "I notice that first-rate vaudeville items, not to mention the excellent items by the Ashfield Band, are included in the fare of the community singing programmes at the Ashfield Town Hall, Sydney, which are broadcast regularly. Can you tell me whether the public has to pay admission to these shows?" No charge for admission is made, but collection boxes are placed in a convenient position at the entrance to the main hall. The proceeds go to a fund to provide and maintain hospitals with broadcast receiving equipment.

THE musical critic of the Melbourne "Listener-In" has some trenchant remarks on the A.B.C. Novelty Orchestra playing at 3LO, Melbourne. He says: "There's no musical tonality or the rhythm. Sounds 'dead'—like a leaden drum played with a carrot." The critic writes of 3AR, Melbourne: "Over 3AR 8.15-10.20, two hours of records. This is not fair to listeners. Living artists are due to us anyway after 8 p.m. and you get your share of

the license fees to see this is done. We can get plenty of records—almost more than we want from 3DB and 3UZ! Two hours for highbrows without relief."

"SPILL" (Hataitai) writes: "Have you noticed that some broadcast station is heterodyning with 2BL, Sydney, in the early evening? I thought at first it was a howling valve, but it

### Reception Table for Australian Stations

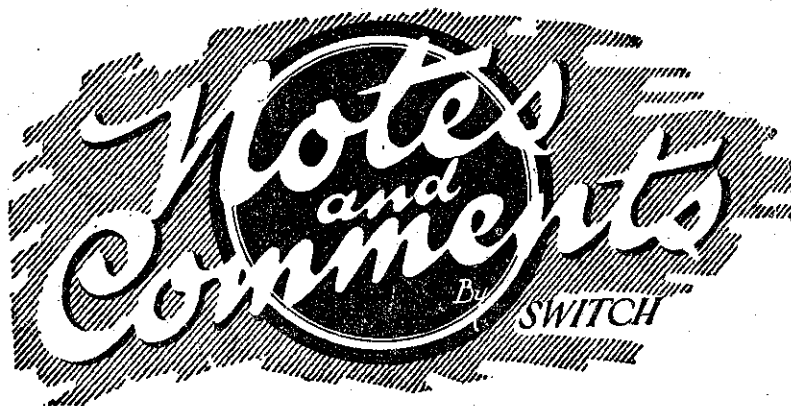
FOR the guidance of those who wish to check their reception of the Australian stations, "Switch" prepares weekly a table showing the average relative strength with which he has obtained reception at 11.30 p.m. during the past week:—

2FC, Sydney .....	10
2BL, Sydney .....	9
4QG, Brisbane .....	8
2GB, Sydney .....	7½
3LO, Melbourne .....	7
3AR, Melbourne .....	6
2UE, Sydney .....	5½
3UZ, Melbourne .....	5½
3DB, Melbourne .....	5
7ZL, Hobart .....	3½
5CL, Adelaide .....	3
6WF, Perth .....	2
2KY, Sydney .....	1½

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

is there continuously, although it 'swings' a little." "Switch" has heard something heterodyning with 2BL on several occasions lately, and has observed the variation in pitch of the heterodyne note. It is not a howling valve.

NOVICES occasionally question "Switch" as to the relation between the silverying inside a valve and its efficiency. There is no connection between the silverying and the efficiency of the valve. The silvery deposit is a film of condensed magnesium. In the progress of evacuation, which is in itself not an easy task, a small piece of metallic magnesium is affixed to the plate of the valve. The plate is then heated, using high frequency induction currents. Volatilisation of the magnesium takes place, the metallic vapour absorbing the remaining gasses, and, upon cooling, condensing on the surface of the valve. The condensation does not obey any fixed law as it is where most of the deposit will occur, hence its irregularity.



sure that Mr. Forbes, New Zealand's Prime Minister, expressed himself as being strongly in favour of the scheme, according to the cabled reports. It will be recalled that prior to Mr. Forbes's departure from the Dominion the Wellington Radio Society forwarded a letter to him urging the desirability of an Empire short-wave broadcast station.

AT the conclusion of the Sydney to Melbourne cycle race, "Switch" listened to the speeches in connection with the presentation of trophies in Melbourne to the three placed riders. Councillor Frank Beaurepaire, the ex-champion swimmer, made the presentations. The Frenchman Maclair, who won the race, spoke in his native tongue, which was subsequently translated into English by another speaker. Bidot, the other Frenchman, spoke first in French and then in English. He finished third. Hubert Opperman, the Australian, who finished second, gave a neat little speech.

FADING has been most intense of late, and even 2FC Sydney has been a conspicuous victim to this complaint. The Japanese stations have not been up to their average lately, and they have been affected by protracted and severe cycles of fading. A station which has been coming in with unprecedented volume is 2GB Sydney, and the tone has been second to none of the Australian stations.

ALYALL Bay listener informs "Switch" that on a recent night he obtained good loudspeaker reception of WGY, Schenectady, on 380 metres (790 kilocycles). This is on a slightly longer wave-length than that of 3LO, Melbourne, 375 metres (800 kilocycles). WGY employs a power of 50,000 watts, but is 8200 miles, in a direct line, from Wellington.

THOSE interested in the establishment of an Empire short-wave broadcast station will note with plea-

"SWITCH" has received a number of letters appreciative of his instrumentality in having the map of New Zealand, with distances from the various broadcast stations, published in last week's "Record." The scale published with the map renders it easy to measure off the exact distance between any two points in New Zealand. One correspondent states that previous to the publication of the map he had no idea that Dunedin was so far as 375 miles from Wellington.

## Christmas and New Year Holidays

### REDUCED RAIL FARES!

15

15

15

Back from the sea, town and countryside—bronzed, healthy and fit! How appealing it sounds after the toil and strain of strenuous work during the year. It can be a reality, too, with the substantial reductions in rail fares now offering.

Holiday excursion tickets will be issued from December 15, 1930, to January 15, 1931, available for return until February 15.

Remember the Dates—the Three Fifteens.

Save 6/- in the £

RESERVE NOW AT RAILWAY OFFICES.

## Addresses and Addressees Wanted

Could anyone give me the address of SRO, Rome?

H.H. (Mercury Bay). Address of W.F.A.A. is Dallas "News and Journal," Dallas, Texas, U.S.A.

Will A. H. Hassan (Bay of Plenty) send his address to the "Radio Record," as R.T.R. (Palmerston North) wishes to communicate with him?

Squeak (Christchurch): WBBM, Atlas Investment Co., Chicago, Illinois, U.S.A.

J.C. (New Plymouth): VK5HG, M. M. Cooper, 51 Hastings Street, Glenelg, South Australia.

## Stations Identified

W. FLANNIGAN and Baldwin point out that the station above KGO is KTM, Los Angeles, not KGM, as identified by "Metre" and T.R.W. last week.

"JAKA," Hataitai: Station heard on lecture, October 18, was KRLD., Dallas, Texas, on Scripture talk. We received it with good volume, and left it about midnight, when he went on with organ music.—A.H.R. (Waitati).

"WISEMAN" (Gisborne): WBBM, Chicago, 389 m., 770 k.c.—Squeak (Christchurch).

A. D. Rogers (Wellington): Station you heard on 25.4 metres calling Tokio, Japan (not Torquay); it sounded very much like that at first, is "Radio Saigon," French Indo-China. He called "Allo! Allo! Tokio, Here is Saigon."

# NEWS AND VIEWS OF THE D.X. CLUB

Then said "Here is some music."—T.C. (Plymouth).

"Wiseman" (Gisborne): Probably KTM, Los Angeles. Gives call as KTM, Los Angeles and Santa Monica. J.C.S. (Beckenham): KMTR, Hollywood, 526 metres. "Clematis" (Raurimu): Might be WGES, Chicago.—R.T.R. (Palmerston North).

## Identification Wanted

STATION operating on about 220 metres on Wednesday morning about 8.30 a.m.—Baldwin (Southbridge).

Station sounded like an American, 2 degrees above KPO, October 26, on jazz, also another on 7HO's frequency at 6 p.m.—Squeak (Christchurch).

Is there a station with the call of 3GB Melbourne. The announcer speaks fast, and I am not sure if it is 3GB or 3DB.—N. Reinheimer (Grey-mouth).—Yes, 3DB (Ed.).

Thursday, October 23, an American station about 1½ degrees below 221, Hastings. He was testing a new transmitter and I think he said that he was transmitting from the Hotel Chaise or Chase, Sixth Avenue (?).—His

call was —K, and he was constantly receiving telegrams from places like Utah, Georgia, Alabama, etc., reporting on transmission.—Willie (Timaru).

Station 6 degrees below 2YB on October 27 at 10.40 p.m. Boisterous volume. Three records were played "Valencia," duet "Let's Say Good-night to This Morning," and "Who." Announcer then asked two men, whose names he mentioned, for reports on last three records.—Taka (Hataitai).

At a station just a shade above 4QG Brisbane there was speaking a lady with foreign accent, giving a long lecture in English on the laws and customs of the English people—a very lengthy discourse about "tea," which is served in English countries between 4 p.m. and 6 p.m., a trolley being wheeled in, laden with many dainty cakes. She also mentioned that English gentlemen do not mind assisting the ladies at this time in handing the food to the guests. She had quite a lot to say about the laws of hospitality. I could not get the station number, as 4QG Brisbane kept drowning the sound. Also, just above the gap, and below Auckland on dial, 63.61, was a station broadcasting a play. Some of the players or characters were as follows:—Major, a foreign highness; Dr. Basil Treherne, and, I think, the Major's wife. The first act was a very nasty scene between husband and wife—when he told her she was "too beastly respectable to kick over the traces" and she told him in an angry voice that "she was the mother of his children!"—H.H. (Mercury Bay).

A Californian station on October 19 on 384-metres (780 kc.). I have heard it several times, but have not caught the call-sign. On this night I logged him at about 8.30 p.m. and heard the following: 8.30 p.m., gramophone recordings; 8.45 p.m., an advertisement, regarding the luxurious accommodation of a certain hotel, the phone number being 65—01. 8.50 p.m., more gramophone recordings. Guests for different people (the announcer said: "Here's a snappy one for Ruth"). 8.55 p.m., "Springtime in the Rockies." 9.2 p.m., close down. American accent was very prominent. Reception: Signals about B4, but every two or three minutes fading completely (uneven reception), slight static. It is a Californian, I am sure.—Keith A. Dixon.

Sunday, October 26, 7.15 p.m. to 7.55 p.m. American heard just above 2BL Sydney, on 860 kilocycles. Broadcasting from Oregon Ballroom. Some of the dance numbers I heard were: "Go Home and Tell Your Mother."

7.15 p.m.: "Whispering," 7.20 p.m.: "Kiss Waltz," 7.30 p.m.: "Yours and Mine," 7.35 p.m.: "Don't Tell Her What Happened to Me," 7.40 p.m.: 7.55 p.m., closed down, announcer saying, "It is now Sunday; I will say good morning." Static spoilt call sign, but the last word sounded like "Nebraska."—J.S.

A Jap. operating a little below 2BL, dial setting 33, 32, 31, and another which operates a little below 4QG, Brisbane. A station on 2ZF's wavelength heard on Sunday, 26th. Closed down at approximately twenty-seven minutes to ten. Came in at good phone strength, static bad; last item was Hawaiian guitar; announcer spoke real good English and stated that they were closing down till 8.30 the following morning. Heard the word "California."—N.R. (Grey-mouth).

[Note.—Dial settings alone are not sufficient to identify a station.—Ed.]

Station heard 2 degrees below 4 QG, Brisbane, between 7.30-8 p.m. October 21. Somebody spoke for a while and then music was played. Another on 1230 k.c. (243 metres) at 10.30 p.m. on October 21. Violin solos in progress.—T.A.L. (Wellington).

SUNDAY, October 26, between 1 and 3 a.m., a foreign station on 900 k.c. (approx.), dial 35½, calling KEL. Evidently Chinese, as he said "Allo, KEL" several times, then "Alright, tank you." Then another foreigner, on about 800 k.c., dial 47, also calling KEL. The speech was in what I took to be Chinese; then someone answered in English. Where is KEL?—E.A.C.

TWO Dutch stations operating on 23 and 24 metres (approx.) on Friday night on telephony and music. Dutch station on 14 metres calling, "Hullo, Amsterdam." Is this PLE, Java? Foreign station on 24.5 metres (approx.). Woman talking in a foreign language.—T.C. (New Plymouth).

## D.X. Topics

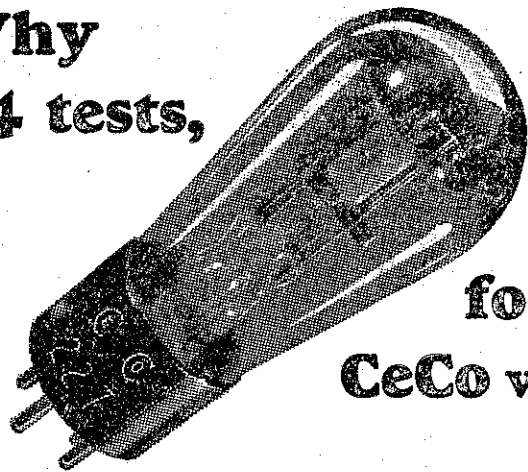
### Indian and South African Stations.

WHEN are the best times to receive Indian and South African broadcasts? What American operates one degree above KFOX?—"Bob" (Lyall Bay).

### WENR, Chicago.

I NOTICE you received WENR, Chicago, Illinois, says a correspondent to "Switch." I received him first at 6.20 p.m. and held him until he closed down at about 7.40 p.m. "Switch" mentions. I am using a six-valve radio of my design and a home-made dynamic speaker. One item in particular, "I Want a Girl Like That," came through with great volume; all items from about 7.30 p.m. to the final one could be heard right across the street. Wednesday is the night for Berhampore while 2YA is off the air. I honestly think that there is a competition going on here to see who can make his set oscillate the low and

## Why 64 tests,



## for CeCo VALVES?

EVERY CeCo Valve receives 64 separate tests before it comes to you—to make sure they will bring to your loud speaker the true tones exactly as broadcast. That is why CeCo Valves enable your set to reproduce the full range of the radio universe—the softest

lullaby or crash of drum and cymbal—with amazing naturalness and beauty. Your present valves may still light and yet be tone "dead". Replace them with a set of CeCo Valves and get the most from your set for the longest time.

## CeCo RADIO VALVES

Write to-day for free booklet "Q"  
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# Metrodyne

WRITE OR CALL AT  
**RADIO FOR TONE & DISTANCE**  
ROYDS-HOWARD CO. 553 COLOMBO ST., CH. CH.

longest, and, believe me, it is going to take some judge to declare the winner.  
—R. L. Munro (Berhampore).

### WCCO and WOI.

**SUNDAY** night, October 26, I received two American stations listed in the "New Zealand Radio Listeners' Guide" as not being heard in New Zealand. The stations are: WCCO Brooklyn, New York, and the other is WOI Amos, Ohio. My set is an eight-valve a.c. WCCO I received at 11.45 p.m. and WOI at 9.30 p.m.—P.C. (Wellington).

### A Good Day.

**SUNDAY**, October 19, the Americans were coming in well here KFI, WBBM, KGO, WENR, KFWB were heard at good speaker strength, on my Browning Drake, and new stations logged since are KFRC San Francisco, KWK St Louis. The latter was heard on 222m. (1850 kc.), giving a special test programme, and calling KMOX. This was at times drowned out by KGER, and is given in the "Guide" as not reported in New Zealand. 2ZI, 2ZL, and 1ZJ, were also logged, the latter testing, and comes in here at great volume. KFVD was heard on Tuesday, and is just below 3YA. A few weeks ago I received a verification

## DX Correspondents

**WOULD** correspondents observe the following courtesies:—

1. In asking for the identification of a station it is necessary to give more than the dial setting. Give the item broadcast, and before the stations can be definitely identified some other DX member should have heard that particular station giving the item. Otherwise there is far too much guesswork without any results.

2. When writing to different sections of the DX Club please keep the items separate, and write legibly. For example, do not mix up a paragraph for the DX Topics with a request for a station to be identified. Of paramount importance—be brief.

3. DX Topics should be of general interest to all DX readers, and not merely a statement that your log comprises so many stations received on such and such a set.

4. As far as possible try to follow the form of questions and notes that is set out in the page.

5. If possible express frequency in kilocycles and metres.

6. All communications addressed to "DX Editor, Box 1032, Wellington." Trade names will not be accepted as pen names.

7. A coupon is unnecessary.

from KGMB Honolulu, and a complimentary card for the use of their station.—"Lastoro."

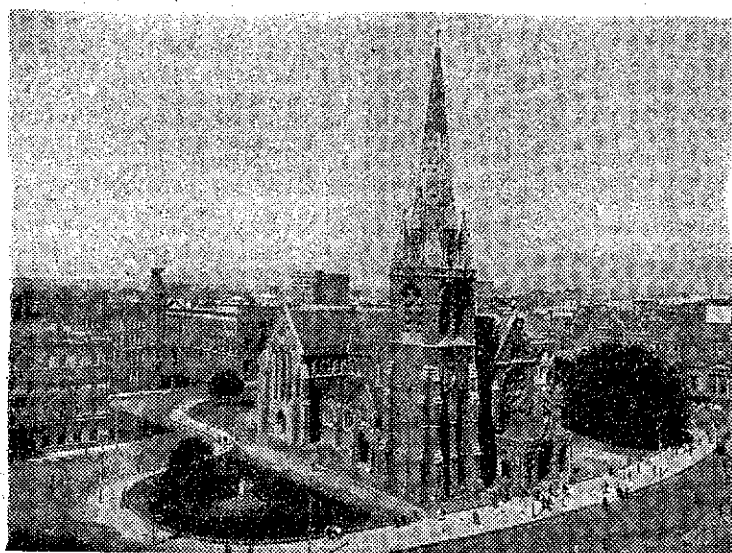
### 2ZA Palmerston North.

**I** LOGGED a new station on October 29, from 9.55 p.m. onward, testing. Call given was 2ZA Palmerston North. Could not get address as static was very bad. It comes in here at good speaker strength, and transmits on the same frequency as 2ZF.—"Jaka" (Haitaitai).

### Early Morning Station.

**I** HAVE recently cleared up an early-morning station on 598 metres as LTD, Durban. I think the one on 370 metres is LTC, Cape Town. Also am

## Carnival Week in



## CHRISTCHURCH

from

November 10 to November 16,

3YA will Broadcast

## Special Holiday Programmes

No Silent Day.

practically sure one between 2FC and 6WF is TB, Johannesburg, as I have heard "Johannesburg" mentioned after most items. On 500 metres I heard a foreign station, and on 280 metres a man talking. Others were heard on 394, 400, 434, 384, 468, 441, 275, 285, 430, 290, 357, 353, 326, 309, 430, 341. These were heard between 4 o'clock and 6, some fair strength, and others just audible.—R.T.R. (Palm. Nth.).

### American Reception Good.

**I** HEARD WFAA on Sunday evening at 6 p.m., when the announcer said "Good night" about 6.30 p.m., saying it was midnight. KSL, Salt Lake City Tabernacle organ recital, came through clearly on the speaker of our 4-valve set, on October 23, at 8 p.m. HMX or KMOX, California—fairly close to KSL, October 23, 8.30 p.m. on loud-speaker. Two items were, "Johnny, Sam so Blue," and "Lazy Daddy." Announcer stated he would reopen at 6.45 a.m. for morning exercises.—H.H. (Mercury Bay).

### An Unusual Verification.

**I** HAVE recently received a verification from KSL, Salt Lake City. It was a facsimile of the one lately received by KDB (Taumarunui). I was surprised, however, to receive the following, under separate cover, by the same mail. It is from the Chamber of Commerce and Commercial Club of Salt Lake City (centre of scenic America):—

"In connection with your recent letter addressed to Radio Station KSL of this city, we are enclosing a folder descriptive of Salt Lake City and Utah, for your information.—J. G. King, assistant secretary." The folder is nicely illustrated, and gives schedules for seven different one-day trips, in and around Salt Lake City and Utah. These Americans are quick to seize any opportunity which may produce revenue.—Amazon (Palm. Nth.).

### Whalers on Duplex.

**SUNDAY**, September 31, at 12 to 1 p.m., I had the "Kosmos" and the "Sir James Clarke Ross" at R9 on duplex. I did not hear ARD1, however. Last night, 31/10/30, 1ZJ was at R9. WTAM, Cleveland, Ohio, informed me that they would be putting over a special New Zealand programme in December, but they would notify the newspapers of the exact date.—Baldwin (Southbridge).

### 4PK, Brisbane.

**REGARDING** the station reported lately as 4BK, Brisbane, I have heard this station several times lately, and am positive the call is 4PK, not 4BK, as I heard the call several times quite distinctly. I have written for verification. Hearing him for the first time on October 12 with gramophone records, interspersed with advertisements for an hotel, in which their transmitter was located.—V. G. Cunliffe (Tasman).

## A Radio Altimeter

### For Safe Flying

**AN** altimeter that will tell aeroplane pilots exactly how high they are above the ground immediately beneath them, rather than their approximate altitude with reference to the point of departure, has recently been invented by an American radio engineer.

The serious drawback with the old or barometric type of altimeter is that it varies with weather conditions. Also, assuming constant air pressure, which is rarely encountered over large areas, it indicates only the altitude above the starting point, always providing the pilot remembered to set the pointer to zero before taking off. Flying blind, he might run into a mountain, with his altimeter registering 3000 feet.

The perfection of the radio altimeter has removed all such dangers. Its operation depends on a newly-discovered principle that a radio receiver can be slightly tuned by the influence of an outside wave as well as by variation of the tuning controls. However, conditions are seldom such that this effect is noticed upon the home broadcast receiver.

A low-powered transmitter and an oscillating receiver are installed in the 'plane, and so arranged that a beat note or squeal is heard when headphones are plugged into the receiver. The waves from the transmitter are reflected by the ground beneath the 'plane back to the 'plane again, and, as the altitude varies a phase difference can be noticed. The "phase difference" describes the relationship between the wave returning to the 'plane and the wave generated in the oscillating receiver. At certain altitudes the reflected wave arrives on the 'plane at just the right time to be perfectly in phase with the local wave. At other altitudes, the two waves are out of phase.

The beat frequency or whistle varies noticeably with the phase changes, definite points being noticed for every half wavelength difference in altitude. Thus, if the transmitter is working on 50 metres, a peak will be noticed every time the altitude changes by 25 metres (approximately 80ft.). These peaks can be made to actuate lights or instruments calibrated in altitude, revealing to the pilot exactly how high he is above the reflecting surface—that is, the ground directly below his 'plane.

### Australian Amateurs.

**I** NOTICED that quite a number of DX enthusiasts are picking up the Australian amateurs, and are asking for addresses. In the July 18 issue of the "Wireless Weekly" appeared a 16-page booklet, with the calls and addresses of the Australian amateurs.—"Squeak" (Chch.).

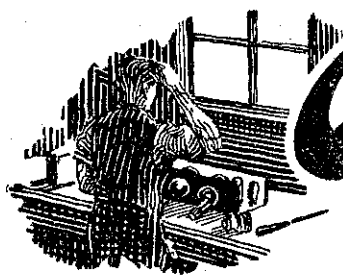
Use Our Booking Offices in Advance

**S-O-S**

TRAVEL IN COMFORT BY  
CAR

WELLINGTON — PALMERSTON  
NEW PLYMOUTH





# Questions and Answers



**SPARKS (Christchurch):** Can a transformer which reduces 230 volts to 12 be used for charging a 6-volt battery or otherwise supply a power pack for 6-volt valves?

A.: If enough current at 12 volts could be supplied it could be rectified and smoothed to supply the power for six-volt valves. You would need a resistance of 6 ohms to regulate the voltage. The smoothing apparatus would consist of a choke such as that described in this week's "Record," and a 2000 mfd. electrolytic condenser.

2. Which is the better for a shortwave adapter—the one in the 1929 "Guide" or the detector stage of "R. the W 2"?

A.: There is very little difference. The one from the "Guide" would be possibly easier to construct, but omit the Imfd. by-pass condenser between the plate and earth.

3. How can hand and body capacity be stopped?

A.: The best way to ensure that there will be no body capacity is to have all moving parts of the condensers earthed to a metal panel. This means that a separate coil must be used for reaction.

**MACA (Heretaunga):** I have incorporated a 30 ohm rheostat between my battery charger and set as you recommended, but get a noise loud enough to spoil reception.

A.: We took it for granted that you would be using smoothing devices between your charger and your set. Evidently you did not do this. Try a 2000 mfd. electrolytic condenser across the charger, and if hum still persists use a choke such as described in the "Record" this week. This

will be followed by the resistance, and it would be advisable to have a voltmeter permanently installed across the smooth output to check up on the voltage.

**FRANK (Mercer):** On two occasions my set of valves has blown out when the set has not been turned on.

A.: As yours is a commercial set you should contact with those who sold it to you, for undoubtedly there is something wrong. A fuse between the "A" and "B" battery would prevent this re-occurring.

2. Would the H.R. or B.D. set give better results than a 5-valve neutrodyne?

A.: Yes, either of these should be better than a neutrodyne.

3. Can you recommend anything better than either of these sets for selectivity distance getting and tone?

A.: Yes, we propose to describe the two stage screen grid B.D. very shortly, and this should be an improvement on either of these two models.

4. Do you recommend four or six-volt valves?

A.: Six volt are more sensitive, but if you have a set of four volts it would not be wise to change them until they are done.

5. Where can I obtain detailed descriptions of the two sets in question?

A.: The B.D. was described in the 1929 "Guide" and the H.R. in the 1930 edition.

6. I have an earth of tinned copper wire, 80 feet long. Is this all right?

A.: If at least 70 feet are coiled and buried in the earth—yes. The coil should be kept damp.

**F.M.K. (Waitanguru):** Where can I obtain advice concerning the Daniel cell charger?

A.: It is being described very fully this week.

2. Where can I obtain scrap zinc?

A.: A foundry should be able to supply it to you. You could write to one of the big city newspapers who may have some old blocks they would be only too pleased to dispose of.

**KRAND (Khandallah):** Will you supply details of valve base coils for use with a .0003 moving condenser?

A.: Reduce the capacity to .00015 by a .0003 fixed condenser in series with the tuning condenser, and wind the coils described in the Questions and Answers page recently.

**REVAL (Morrinsville):** The lower frequencies on my set are received very weakly. Can they be improved?

A.: Some sets bring in the low frequency stations not as well as the high, and this evidently is what is happening in your case. You cannot do anything to overcome it providing everything is in order. It might be worth mentioning to your dealer.

**KAURI (Whangarei):** I cannot get Japan on my set. Can you suggest a better combination of valves?

A.: No, but your valves may need re-tuning; other than that we are at a loss to make a reasonable suggestion. If you are not satisfied with the results you are getting you should write A.W.A. Nimmo's Building, Wellington.

**YZ (Palmerston North):** I have recently purchased a short-wave adapter for my set, but cannot hear the sta-

tions strongly enough when the set goes out of oscillation. Can a stage of radio be added?

A.: A stage of radio is not a practicable proposition. Try altering the grid leak—it should be as high as 10 megohms for short-wave—and increase the detector voltage.

**FOXY (Hokitika):** Can I make a shortwave adapter for my set, and would it be the price?

A.: A super heterodyne adapter was described in last week's issue, and an ordinary adapter has been described in the 1930 "Guide." In neither case should the cost exceed £5, and it is probable that it would not be as much. We do not publish blue prints.

**O.J.C. (Auckland):** What stations other than the New Zealand and Australian should I be able to receive on my six-valve set? Can I receive stations after midnight?

A.: As so much depends upon locality it is difficult to say whether or not your results are good. Your valve combination appears to be a good one, though perhaps if you replace the PM.6 in the last stage with a PM.256 you would do better. See the DX club notes for hours of reception of different stations.

2. A month after I purchased the set one of the valves burnt out.

A.: Without investigating the set we cannot tell you why this happened unless the valves were at fault.

3. Would a burnt-out transformer cause a howl when the set is turned on to six valves.

A.: Quite probably the transformer is at fault.

**SIGNAL (Dunedin):** Can I add another valve to my Midget set?

A.: No, the set is designed for the number of valves now operating, and an increase would not be economical.

**E.F.B. (South Dunedin):** I have a detector and two audio stages, using g.p. valves. Could I obtain better results by using different valves?

A.: If you wish to continue using Philips use 215 as detector, 209 as first audio, and B205 in the last stage. The B.G.E., 31-37 Taranaki Street, Wellington, were the New Zealand agents.

2. I wish to receive 2FC, 2BL, or 4QG with sufficient volume for dancing. How can I do this?

A.: By using your detector to feed a power amplifier, but even then you are ambitious. You really need a set with high frequency amplification.

3. Why can I not receive 8AR or 7ZL?

A.: These are on low frequency, and evidently your set will not go down to those frequencies.

4. What is the correct C voltage?

A.: For B205 with 90 volts, about 9.

5. My set is variometer tuned. Is this efficient?

A.: Yes, but not as efficient as condenser tuned.

6. Could I receive Morse on extra coils?

A.: Yes, but it would be difficult to design the coils, and then you would only get commercial stations.

**D.X. (Dunedin):** On a four-valve set should I be able to get 2YA without interference from 4YA, and 3YA without interference from 4ZM or 4ZL?

A.: It is most unlikely that you will receive these stations without interference, as one stage of screen grid is not selective.

2. The tuning is very broad. How can I make it sharper?

A.: By using a wave-trap, by incorporating loose coupling in the aerial circuit, or by using a shorter aerial.

3. The set will not oscillate below 315 meters. I am using 18 volts on the detector.

A.: Your detector is not high enough. Try 45, or if that causes instability, 22½.

4. Would .0003 reaction condenser be too big or too small for the job?

A.: It would be the right size.

## N.Z.'S OWN RADIO BOOKSHOP

The **TE ARO BOOK DEPOT**, Wellington.

Booking orders now—"Handy's Handbook," 7th edition expected shortly, 5/3 posted.

**JUST ARRIVED**—Prices include postage:

"Collins' Wireless Diary, 1931," 4/- posted (Amateurs and Broadcasters—150 pages useful information).

"1001 Radio Questions and Answers, 1930," 2/9.

"Short-Wave Manual, 1930," 2/9.

"Radio Trouble Finder," 1/10.

Above published by "Radio News" Co.

"Radio Amateur Call Book," June, 1930, 5/3

"Projection Engineering"—a monthly, 21/- per annum.

"Radio Manual," by Sterling and Kruse, latest edition, 26/-.

"Elements of Radio Communication," by Morecroft, 19/-.

"Thermionic Vacuum Tube," by Van der Bijl, 26/-.

"Radio Receiving Tubes," by Moyer and Wostrel, 14/-.

"Practical Radio Construction and Repairing," by Moyer and Wostrel, 14/-.

"Electric Wiring," by Ibbotson, 10/-.

"How Radio Receivers Work," by Roberts, 8/-.

Also all leading English, American and Australian wireless magazines.

Mr. F. W. Sellens' list of Shortwave Broadcasting Stations, 7d.

Last year's "N.Z. Radio Listeners' Guide" still selling well, 2/9.

"Modern Wireless," 1/7.

"All About the All-Electric," 1/7.

"N.Z. Radio Handbook Annual, 1930," 2/9.

(contains list of the World's broadcasting stations).

Blue prints and complete instructions on following—1/9 each:—

7-Valve Super-Het.

6-Valve Neutrodyne.

5-Valve Neutrodyne.

Batteryless Neutrodyne.

Selective Crystal Set, 2-stage Audio.

All about Aerials.

Simple Wave Trap and Clarifier.

At 2/6 each.

Cockaday Receiver.

5-Valve Cockaday Receiver with P.P. Amplification.

Tropadyne Superadio.

"Radiando Three."

At 5/- each.

"Building 18ft. Sailing Canoe."

Money refunded if unsuitable and returned in good condition. New stocks by every overseas mail. Write us.

**TE ARO BOOK DEPOT**

64 Courtenay Place, Wellington.

**LISTENERS** must attach this coupon to all queries sent to the Technical Editor (Box 1032, Wellington). Questions arriving without it are likely to go astray or be delayed.

Name of set .....

Number of Valves .....

Name .....

Address .....

Nom de plume .....

To be kept in subsequent inquiries.

Date .....

Please Note:—

- (1) Be specific and brief, tabulating, if possible.
- (2) Write legibly, and on one side of the paper.
- (3) We do not design circuits, but accept suggestions for feature articles.

Solving trouble, as different from advice, is difficult by correspondence and while letters are given every consideration, answers are not necessarily correct—they are only our opinion based on the matter supplied, which may be quite inadequate. Intricate and involved specifications cannot be supplied without a specialist's fee.



G. M. (Dunedin): Can a 20 ohm rheostat be used instead of the amperite in "R. the W. Two"?—Yes.

2. Can one of the windings of the earphones be used as an r.f.c.?—No.

3. Can you send me a diagram of how to make valve base coils for the Cossor Melody Maker?

A.: The making of valve base coils has been described in the 1930 "Guide." You will have to reduce the capacity of your condenser by a suitable tuning condenser and following specifications given for a .00015. Probably you will need a .0002 fixed condenser.

A. E.S. (Timaru): Where does the extra terminal go when connecting a pentode to a set?

A.: To the highest B plus tapping on your battery.

Note.—Thank you for your offer. It should prove very interesting.

L. E. (Taupiri): I made the short-wave adapter described in the 1930 "Guide." With several adaptations, I can receive Morse and static but no broadcast.

A.: Apparently you are not used to short-wave tuning, as when you are receiving morse you are oscillating, and to receive broadcast you must be on the verge of oscillation. You should have followed the description in the "Guide" as you may now be getting a certain amount of hum. We know of no better a.c. circuit. You should have used a coupon.

JACKO (Auckland): I want to replace the valves in my four valve B.D. What do you advise me to use?

A.: You can still keep using the A609 in the radio stages. For the detector try 615 Philips, or PM6D Mullard. For first audio any of the following: A609, PM5X, 221A, L610. For the last stage: B605, PM256, UX112, P610.

A. C.B. (Rotherham): Volume has become considerably reduced and I have checked over all the connections. Everything seems O.K.

A.: We regret we cannot help you as you have given us no clue to work on. Contact the dealer who sold you the set.

H. H. (Christchurch): Can A and B current be taken from a "B" eliminator?

A.: No, the winding on the secondary will not supply enough current.

C. D. (Auckland): My set will not oscillate when the aerial is connected to the centre tap of the coil and the earth is on, but when the earth is removed it will oscillate freely.

A.: This is due probably to damping effects of the aerial which are countered when the earth is removed.

2. Why does 12B come in stronger than 1YA?

A.: Probably your set amplifies frequency in the region of 12B greater than those near 1YA.

A. R. L. (Featherston): With the detector rheostat on about a quarter turn and the amplifier on full I can get only very weak strength. When I touch the first valve there is a whistle.

A.: This appears to be due to poor emission. The valves are paralysed and should be replaced.

COILFORMER (Hikurangi): Please design secondary and reactions coils to cover the waveband from 20 to 80 metres. Ribbed formers 2 1/2 in. outside diameter secondary wire 22 s.w.g. bare spaced an eighth of an inch, reaction wire 30 dsc. tuning condenser .0001 slow-motion reaction condenser .0002, valve A615.

Band.	Secondary.	Tickler.
16/27 metres	2 1/2	4
27/48	6	4 1/2
47/84	11	8

J. C. (N.E. Valley): One of your answers to my queries did not seem to agree with what I had worked out myself. This is in relation to the number of turns on the primary of an r.f. transformer. I worked out to be about 14 and you say 11. Which is correct?

A.: Both; the impedance of the valves varies according to the frequency it is receiving, so that anywhere between 11 and 15 turns would be correct.

2. I have a 201A in the last stage of my 6-valve set. The signals do not seem to be as loud as they should do.

A.: The 201A should not be in the last stage. Put in a power valve. In respect to the first audio valve see that the primaries are not reversed in relation to the secondary winding.

ANGUS (Wanganui): I am troubled with coupling between the r.f. and detector coils of my 4-valve screen-grid set.

A.: Try a 1mfd. by-pass condenser across the radio and detector battery lead. Do not use a common lead in the "B" battery leads to the s.g. and any other valves. Use separate leads and wiring, otherwise place large radio frequency chokes in leads. This is a common complaint in your type of set. Reduce the grid leak value and look very carefully over your audio side where oscillation is really taking place.

2. Are the signal strengths referred to by Sellens of 'phone or speaker?

A.: Both. If you consult the table which was published a short time back you will notice that some of the higher numbers refer to speaker strength. Others are 'phones.

3. How is the centre tap of the variometer volume control in a 5-valve Stewart Warner neodyne connected to the rest of the set?

A.: The two grid returns of the r.f. valves are brought to the centre tap and the outside terminals go to the "A" battery.

C. V. N. B. (Feilding): I find the voltage supplied by my home-made charger is correct, but the charging rate is too high. When I bring the voltage down the amperage immediately jumps up.

A.: This is quite correct; the higher the voltage used in charging the lower the amperage and conversely the lower the voltage the higher the amperage when using apparatus of this description. You need a power clorostat (Radio, Ltd., Auckland) or a power rheostat (National Electric Engineering, Wellington). You

## Coastal Radio Stations

### A Comprehensive Network

ADVANCES in radio are being made so rapidly nowadays that many of the everyday services are often overlooked. One of the most interesting wireless organisations in the Southern Hemisphere is the Pacific coastal radio service, which comprises over thirty stations, scattered throughout Australia and the Pacific islands. Many people are scarcely aware of their existence, yet throughout the 24 hours of the day the coastal operators are continuously sending and receiving messages to and from vessels within a radius of thousands of miles.

The coastal operator not only communicates with ships at sea, but he acts the part of a traffic director. Sometimes several ships are trying to "talk" to him at the same time, and it is his prerogative to tell one to proceed with his message, another to call him again in half-an-hour, and another to stand-by until he is called. The most important function of the coastal operator, however, is to listen for distress signals. He is eternally on the watch for the S.O.S., and the moment that call is heard he sends out in eight letters a call, which is an order to all stations to cease transmitting and listen.

It is the coastal operator who determines which vessel can most readily render assistance, and thus he reports to the navigation authorities. Recently, when the Tahiti sank in mid-ocean, the operators of Suva radio had complete command of shipping in the Pacific. Through their agency the messages from the sinking vessel were not only communicated regularly to the rescuing craft and other shipping, but the Tahiti's owners in New Zealand were kept in constant touch.

Many improvements have been made in the coastal radio stations since 1922. In that year the A.W.A. company took them over from the Postal Department, which was never adequately organised for a radio service. The old spark transmitters were then in use, and an extensive research was immediately commenced with a view to developing an efficient valve transmitter with which to replace them. The experiments were successful, and now the most modern of transmitters are installed throughout the coastal stations.

In order to ensure a trouble-free service, each station is also equipped with an auxiliary universal wave transmitter. This is a low-powered instrument, which can be operated on any wavelength as simply as a radio receiver is tuned in to various broadcasting stations. Although these sets use no

more power than would light an ordinary house, they have a normal range of 500 miles by day and 1200 miles by night.

HAVE you renewed your subscription to the—

"Radio Record and Electric Home Journal"?

12/6 in Advance; 15/- Booked.  
BOX 1032, WELLINGTON.

## BARGAIN CORNER

### This Week's Specials

1. Silver Marshall Low-loss S.L.F. Short-wave Condensers, .00014. **5/6 each.**

2. Green Flyer Electric Gramophone Motor, complete with turntable, 230V. A.C. **\$5/5/- each**

3. Blue Spot type 66K Four-pole Balanced Armature Loud Speaker Units. **25/- each**

4. Igranix Variable 3-Coil Mounts. These are not universally used now. If they are any use you can have them for **2/6 each**

5. Centralab Adjustable Grid Leaks enable you to adjust your grid potential to the one correct value which will give you the maximum signal strength. You will be able to tune a little sharper and kill that annoying squeal. Were 5/6 each but we have too many. Yours for **2/- each**

6. THE LUCKY PACKET No. 1. **5/-** Each packet contains a different assortment of Grid Leaks, Fixed Condensers, Brackets and all those small parts so useful to experimenters and set builders. We guarantee you will not find the assortment listed in any N.Z. Catalogue under **10/-**. Trust us with 5/-; you will be well satisfied with what you receive.

Goods sent by mail are returnable to us if you are not satisfied and return them to us within 7 days, and your money will be refunded in full.

—THE—

## ELECTRIC LAMP HOUSE LTD.

27 MANNERS STREET, WELLINGTON.

No. 2.—

## A series of Unsolicited Testimonials about FARRAND INDUCTOR SPEAKERS

(Originals on file at our office.)

"The tone is very clear, the ability to handle volume much above that obtained with other cone speakers that we have tried, and the high and low notes are reproduced equally well. We wish to keep this speaker in the writer's home to replace a dynamic speaker of a well-known make with which we were well satisfied prior to trying out the Farrand."

SOLE AGENTS:

## L. M. SILVER & CO., LTD.,

30 TORY STREET, WELLINGTON.

might try four yards of 18 gauge nicrome wire in series with your lowest tap.

MUSHY (Nelson): When listening to 2YA reception is mushy, more so than any other station.

A.: This may be due to your locality, as your set would hardly distort on one station.

K. A.D. (Hawke's Bay): Could you give me the address of "Crystal and One Valve, Auckland"?

A.: We cannot make addresses public without the wish of the person concerned, but if "Crystal and Valve" cares to send his address to us we shall forward it on to you.

# Solving "A" Battery Problems

## Use of Daniel Cells



**B**ATTERY problems, especially those of the "A," loom largely in the troubles of set owners who are far removed from electric power. Dry cells generally prove an expensive item, for they are constantly running down. Accumulators have sometimes to be taken long distances over rough roads, often impassable in winter, to be charged. They are not infrequently damaged, when not only inconvenience but expense is involved.

Some time ago, in an article by "Hardup" the Daniel cell type of primary battery, which figured largely in the early days of electricity, was mentioned as being a good charger for "A" accumulators. This aroused a considerable amount of interest and letters came from all parts of New Zealand. Further details were given on different occasions in Questions and Answers and just recently the writer happened to mention in the "Exporter" that particulars of this battery would be supplied on request. The amount of correspondence resulting from that remark was amazing, and there was apparently only one thing to do, and that was to go into the whole question fully and prepare a special article.

The details which are now given have been kindly supplied by a very satisfied user of this type of battery—Mr. Watson, of Brooklyn, Wellington. Mr. Watson has done a considerable amount of experimenting, and has evolved the strengths of the solution to a nicety, but he is not alone, for several correspondents have written us stating that they have had great success with this charger. It is not universally used because it requires a fair amount of attention, and unless a person is interested in keeping the battery always in the best condition it is no use his attempting

it. In many cases it can be used without an accumulator, though a small capacity one is preferable. The battery of primary cells is permanently connected to these and so the accumulator constantly receives a charge.

Here are the parts required for one cell, which will total approximately 1.1 volt:—A glass jar at least 3in. wide at the mouth—telephone type of glass Leclanche containers are the best, but anything will do providing it is about the size of a 2lb. jam jar. In fact one of these would do quite well if the top were cut off to allow the porous pot to be inserted. An open mouthed jam jar would be even better.

One porous pot. Correspondents have had difficulty in obtaining these and so we have entered into an arrangement with the Post and Telegraph Department that they may be obtained at the price of 6d. each upon application to the Stores Manager, P. and T. Department, Wellington, or Chief Postmaster, Christchurch.

A quantity of copper sulphate, or, as it is better known, bluestone. For eight or nine cells 2lbs. will be required every fortnight.

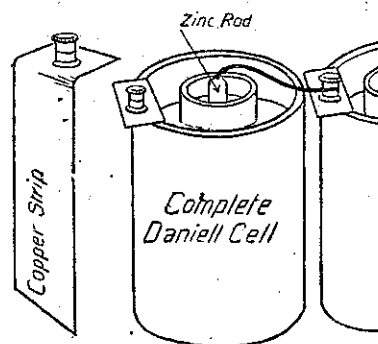
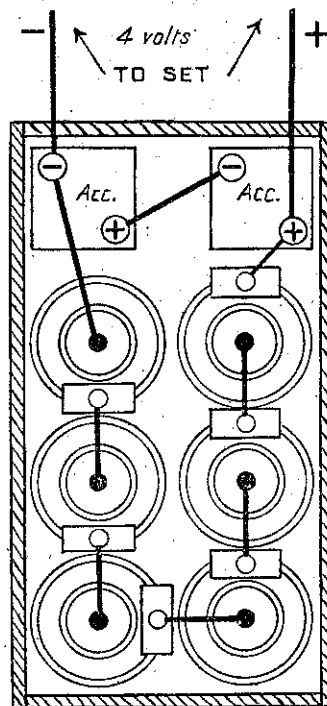
Sulphuric acid. This should be obtained from a chemist who sells it 99 per cent. pure. If this is used one part in 60 to 80 parts of water by weight will make a sufficiently strong solution. The amount, of course, will vary with the number of cells to be used.

A quantity of copper sheet. A quantity of scrap zinc, which can be obtained from any foundry or the "tin" lining of packing cases.

Distilled or pure rain water collected in an earthenware jar.

An ounce of mercury to each pot. This is not essential but it lengthens the life of the zincs.

For a six-volt accumulator about 9 cells will be ample and should, if valves of light filament consumption are used, keep the battery fully charged. For four volt valves 6 or 7 will be ample and for two volt, 4 will be needed. The assembly can be quite well understood from the accompanying diagram.



A charger for a four-valve set. Two two-volt low-capacity accumulators are shown in series.

The scrap zinc is collected, melted down, and moulded into rods 7-8ths or an inch thick and long enough to clear the porous pot. While in the mould place a terminal taken from an old "A" cell. This has a long shank, and will make a good contact with the zinc, otherwise a copper wire properly cleaned should be pushed in. It should be long enough to connect with the copper of the next cell. Those who do not wish to go to the trouble of making

their own zincs can obtain them ready made. These are amalgamated and will make unnecessary the use of mercury. The thicker rods which can be home-made as we have described will give better service.

Having moulded the rods, the next task is to prepare the copper. There is no wear on this, so the thinnest sheet copper can be used, 24-gauge being quite suitable and can be obtained from an ironmonger or metal worker. It is cut into strips 6½in. x 2in. wide. A terminal from the outside zinc container of an old "A" cell should be soldered on to the short side for contact with the wire on the zinc of the next cell.

It will be found after a cell has been operating for some time that the copper will become heavier. This is due to a deposit from the copper sulphate, or bluestone. The deposit is pure copper, and one of our correspondents at least sells this when it becomes too thick and obtains the price of a new set of plates thereby.

Into the porous pots, which should be thoroughly clean, pour an ounce of mercury. This should be just sufficient to thinly cover the bottom of the pot. This is, of course, unnecessary if the zinc is amalgamated or if the constructor does not intend to use mercury. On the zinc pour a solution of sulphuric acid and water.

To make this solution with pure sulphuric, put 10lb. weight of water into a container and pour in very slowly two ounces weight of sulphuric acid.

The method of mixing sulphuric acid and water is very important. Pour the sulphuric acid slowly on to the water, not the water on to the sulphuric. The latter will probably cause an explosion.

Those who cannot obtain pure sulphuric could use commercial, which, being not so pure, must be mixed at a strength of one part to 40 by weight. Epsom salts may be used instead of the sulphuric, and a half-saturated solution is made by mixing 6½ ounces Epsom salts to a pint of water. The sulphuric acid solution is now poured into the porous pots, which are placed in the jars. Put a handful of bluestone into each pot and pour upon it the distilled water. Now insert the zincs and the cells are complete.

THEY are connected up as is shown in the diagram. The zinc of one is connected to the copper of the other until the required number of cells are connected up. There will be a zinc and

## STALLOY ∴ CONDENSERS

New shipments have just been received of Stalloy suitable for Chokes and Transformers.

STALLOY is .018 inches thick and obtainable in

STAMPINGS,

STRIPS 2in., 1½in., 1¼in., 1in. and ¾in. wide,

SHEETS, 36in. x 24in.

BRITISH DUBILIER CONDENSERS

Are now obtainable in 1, 2, and 4 mfd. suitable for D.C. working voltages of 150, 350, 750, 1000 and 1200 volts.

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58-62 Victoria Street, Wellington.

"WHERE THE QUALITY GOODS ARE SOLD."

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Patent Attorneys

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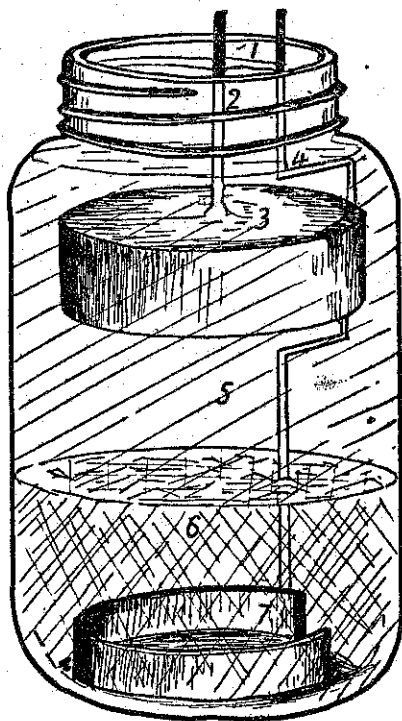
**WELLINGTON**

copper left and these will be the negative and positive of the charger. Connect these to the terminals of the accumulator. Do not worry because the voltage of the charger is higher than the voltage of your valves, because if an accumulator is between the two there will be no damage to either.

If, however, they are running a set of valves direct, the voltage must be the same.

At an "A" battery the Daniel Cell will supply at least half an amp, so will be quite suitable for 4 or 5 valves sets using low filament consumption valves. If your set uses .06 valves of the 221 or "A" type the charger will do quite well as an "A" battery.

As we mentioned previously, the battery will need an amount of attention. Copper sulphate must be added every fortnight, and the zincs will probably wear through in about six months.



#### GRAVITY TYPE DANIEL CELL.

A useful expedient where regular Daniel cells cannot be used.

(1) Wooden plug,  $\frac{3}{4}$  in. diam.; (2) brass rod, about 1-8 in. diam.; (3) zinc plate,  $\frac{1}{2}$  in. thick; (4) copper wire; (5) distilled water; (6) blue-stone; (7) copper plate, 6 in. x  $\frac{1}{2}$  in. x 1-16 in. The water should cover the zinc plate.

Apart from this, the battery should give excellent service.

If anyone is in difficulty with this charger or requires further information they may obtain it by writing the Technical Editor.

**Would you like to be one of those who get about and SEE PLACES?**

Qualified Radio Operators see the world under ideal conditions. Start learning to-day. For full particulars

**JOHNSON'S WIRELESS SCHOOL**  
BRANDON STREET, WELLINGTON.

# Audio Choke Construction

## Detailed Account for Amateurs

IN response to applications from many correspondents, we are republishing a section of the 1930 "Listener's Guide," dealing with choke construction. We regret that so many of our readers have been unable to obtain copies, and are doing our best to meet the situation by reprinting the most wanted sections in the "Record."

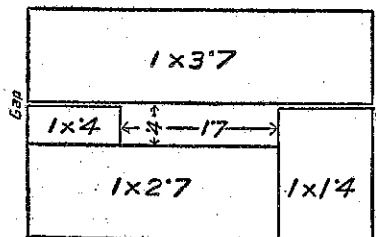
Assembly of chokes differs from that for a transformer on account of the "gaps," which are breaks in the continuity of the core introduced to prevent the core becoming magnetically "saturated," as even before saturation point is reached the inductance lowers considerably. On account of this it will be seen that a choke holds only its nominal inductance so long as the specified mills carried is not exceeded. Saturation is avoided when increased mills. are carried, by increasing the width of the gaps, but this also lowers the inductance, therefore it must be recognised that the carrying capacity of a choke is fairly limited if the nominal inductance is to be maintained, that heavy carrying capacity can only be obtained by the employment of a massive core and ample gaps—sometimes up to  $\frac{1}{4}$  in.

The pieces of stalloy that pass through the centre of the winding are cut to project the width of the stalloy at each end. These are packed in tightly, after which the remainder of the core is assembled. Squares of cardboard of suitable thickness to form the gaps are stuck to the sides of the projecting central core, and the short pieces of stalloy assembled against these. Clamps, which may be of wood, are provided at each end and bolted together. Four sizes of stalloy are used in building a choke core, one heap the thickness of the core for each size. That is, for a  $1\frac{1}{2}$  in. core, each pile would be  $1\frac{1}{4}$  in. high.

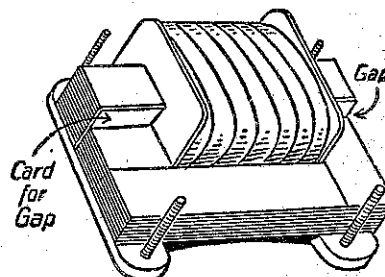
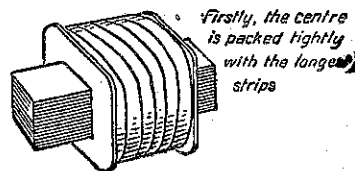
Enamel is the only practical insulation for wire to be used in small chokes, because the inductance depends

the cross-section of the core is halved the inductance will be halved. It is thus seen that an alteration in the number of turns has a much greater effect than an alteration in core cross-section. Causing the turns to occupy too great a space is equivalent to reducing their number, as the distance from the core renders them less effective. This un-

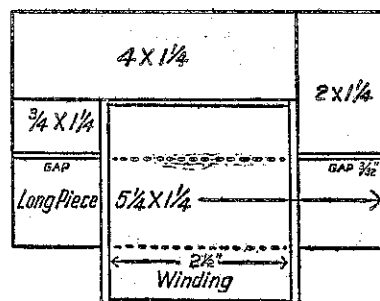
### Choke Construction



Core Dimensions for Small Chokes



Then the remainder of the Core is assembled



#### 0.5 Henry Smoothing Choke

largely upon the number of turns that can be put into given space, or, in other words, upon how near to the core the turns may all be placed.

Inductance varies as the square of the turns, and proportionately to the cross-section of the core. If the number of turns is halved, the inductance drops to one-quarter the value, but if

will safely carry the current to be passed.

Chokes to carry not more than 10 milliamperes are sometimes made without gap, giving a very high inductance. This type can be utilised for impedance or choke coupling in audio amplifiers.

The ends of the winding are usually brought out to two terminals in a strip of ebonite, which is attached to the wooden clamps in a suitable position.

A table is given of particulars of core and number of turns of wire for small audio frequency chokes for eliminators, choke coupling, suppression of "motor-boating," etc. Dimensions are also given of a core suitable for chokes wound with wire not heavier than 34. The smaller dimension of the window may be altered to suit the requisite turns. A further table shows approximately how many turns of a given gauge of wire may be put into a "window" of given size, whilst the following tables enables the approximate resistance to be found by multiplying the figure there given by the number of thousand turns to be used, whilst at the right-hand of the same table the weight of wire per thousand turns is given. Thus the weight to be purchased for a given size may easily be calculated, although a small amount in excess should always be allowed, also bearing in mind that not less than  $\frac{1}{2}$  lb. can be purchased.

If a choke is constructed to give a certain inductance when the maximum specified current is passing, then the more current is reduced, the higher will the inductance value rise.

#### Chokes for "A" Eliminators.

A GOOD low inductance choke is essential to an "A" eliminator, and the one here outlined will be found to answer the purpose well. Details of choke construction will be found in (Concluded on page 29.)

### Audio Choke Specifications

Henry's	Core 1 x 1				Core 1 1/4 x 1 1/4			
	Turns	Gap	Mills	Wire S.W.G.	Turns	Gap	Mills	Wire S.W.G.
20	6250	05	90	32	4800	05	120	30
	4700	03	70	34	3750	03	90	32
30	7400	05	75	34	5800	05	100	32
	5700	03	50	36	4500	03	70	34
50	9500	05	60	34	7900	05	75	34
	7300	03	45	36	5900	03	50	36

Thinner wire may be used if maximum current not passed

Length of Window					
Width of Window	2 1/2"	3 1/2"	4 1/2"	5 1/2"	6 1/2"
3 in	3000	3000	5000	6000	7500
4	4000	4200	6000	8200	11500
5	5000	5200	7500	10000	15000
Resistance per 1000 turns of Wire - 2" Window			Approx. Weight of Wire per 1000 turns		
Core		Gauge of Wire S.W.G.	Core		Gauge of Wire S.W.G.
1 x 1	1 1/4 x 1 1/4		1 x 1	1 1/4 x 1 1/4	
43 ohms	51 ohms	32	2'8ozs.	3'3ozs.	
58	70	34	2'0	2'4	
85	102	36	1'34	1'62	
156	165	38	0'85	1'2	
213	260	40	0'543	0'653	

Multiply above figures to ascertain Total

necessary spacing may be caused either by using too heavy gauge of wire, or by using wire with bulky insulation. In gauges of wire smaller than 26 s.w.g. double cotton covering occupies more space than the conductor, and of 26 only half the number of turns of d.c.c. can be put in the space occupied by a given number of turns of enamel. Coming down to 36 gauge, it is found that d.c.c. occupies over 4 times as much space as enamel, therefore d.c.c. wire cannot be used for small chokes if high inductance is required, without unduly increasing bulk and direct-current resistance on account of the excessive number of turns required.

The foregoing also shows that in order to keep the inductance high, the gauge of wire should be no larger than,

## THE WEEK

### Sunday School Anniversary

2YA, Sunday.

### "Last Judgment"

2YA, Monday.

### West Country Revel

4YA, Monday.

### Maori Quintet

2YA, Tuesday.

### "Life in India"

4YA, Tuesday.

### "English Countryside"

3YA, Thursday.

### Mozart Evening

4YA, Friday.

### Radio Rascals

3YA, Saturday.

## SUNDAY

### 1YA Broadcast

THE evening service will be relayed from St. Andrew's Church, the preacher being the Rev. Ivo Bertram, and the organist Dr. Neil McDougall. A new artist in the person of Miss Kathleen Morrison, mezzo-soprano, will appear on the after-church programme. Miss Morrison has a delightful voice and a fine sense of interpretation. She will be singing "Mary Magdalene," "Dawn," "Pale Yellow Rose" and "Wind on the Wheat." Mr. J. F. Montague, well-known elocutionist, will give renderings of poems from his scrap-book and a further number, "The Little Irish Number." Instrumental items by the Studio Trio, including a piano solo by Mr. Eric Waters, will also be included.

### Notes from 2YA

AT 3 o'clock the 150th Anniversary Commemoration of Robert Raikes, founder of the Sunday

# Feature Peeps at Future Programmes

School, will be relayed from the Town Hall. This function is being held under the auspices of the Wellington Sunday School Union, the speakers being Mr. W. E. Howe (president of the union) and Pastor W. G. Carpenter.

The evening service will be relayed from the Trinity Methodist Church, Wellington South, the preacher being the Rev. T. W. Vealie, the organist Miss Lillian Thawley, L.A.B., and the choirmaster Mr. W. McLellan. Following the church service there will be a studio concert by the Wellington Artillery Band. The band, under the conductorship of Captain T. Herd, will play the descriptive overture "Peace and War," the serenade "O Beauteous Night," a descriptive number, "A Sunday Parade," a selection, "Satanella" (by Balfe) and two marches. They will be assisted by prominent 2YA artists.

### From Christchurch

THE service in the Christchurch Anglican Cathedral will be broadcast. A studio concert will follow.

### 4YA Programme

THE evening service to be held in St. Paul's Cathedral, followed by a relay of 3YA's after-church concert will be broadcast.

## MONDAY

### 2YA Items

MR. H. C. SOUTH'S fortnightly talk on "Books, Grave and Gay," will be broadcast by 2YA at 7.40.

THE evening programme will be devoted to a special studio presentation of Spohr's oratorio, "The Last Judgment," to be presented by the combined Anglican Church choirs of Wellington.

The soloists will include many well-known Wellington artists. The choir will perform under the conductorship

of Mr. W. A. Gatheridge and the pianist will be Miss Iris Mason. The supporting items to be played by Signor Truda's Orchestrina will include the "Madonna" overture by Mozart, Haydn's "Seven Last Words," Verdi's famous "Requiem," the "Gloria" from Haydn's "Mass in B. Flat," and an orchestral arrangement of the famous bass solo from Mendelssohn's "Elijah" — "Lord God of Abraham."

### 3YA Notes

A DIALOGUE on "The Story of the Garden," being elementary botany as applied to garden plants, will be given by Messrs. E. E. Wiltshire and F. C. Fairclough. This will be the first of a series of such talks.

The popular New Brighton Band, under Conductor J. Nuttall, assisted

lar Welsh songs. Mr. Jack Clarke is to present that typically English and well-known "catch" entitled "John Barleycorn." The evening's programme will open appropriately with Edward German's selection "Merrie England," and the orchestra will later render "Devonshire Cream and Cider." The overture "Plymouth Hoe," also to be played, depicts in musical form the characteristics of the great Devon seaport. Quilter's "Country Dance" and "Merry Pranks," together with a complete suite of "Lights o' London," concludes the instrumental section of this session. Recordings of "Glorious Devon" and "Young Tom o' Devon," by Foster Richardson, have also been included in the evening's entertainment. To-night's two hours of bright music has a motif which



### THE CLARSAX DUO.

Mr. S. C. Lewis and Mr. Bert. Kingsland. A very entertaining musical combination at 1YA.

—S. P. Andrew, photo

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by the Christchurch Broadcasting Trio and other artists, will provide a very bright programme.

### From Dunedin

TO-NIGHT'S programme will be unique and novel. It is entitled "A West County Revel."

A special orchestral combination comprising some of the finest players available in Dunedin has been engaged and has been rehearsing this particular programme for some time. The items on the programme will be typical of the West Counties of England. Characteristic music, including many Welsh airs, will be played by the orchestra, and numerous folk songs will be heard. One of the Welsh airs, by Myddleton, that brilliant English orchestral arranger, is entitled "The Leek Selection," and incorporates numerous Welsh melodies. Mr. J. Davies will sing four of the most popu-

## TUESDAY

### Auckland Topics

AT 7.40 p.m. Sir Carrick Robertson will give a talk on "Cancer."

Appearing on the programme will be Miss Joyce Seth-Smith, mezzo-soprano, who will sing "Hindoo Song" (from "Sadko"), and two other operatic numbers. Excerpts, solos, and duets from light operas will be given by Miss Sarah Stacpoole (soprano), and Mr. Frank Sutherland (bass-baritone). They have chosen items from "The Vagabond King," "The Desert Song," "Veronique," and "Lilac Time." Mr. A. B. Chappell, M.A., will give a further Topical Talk. Some very fine numbers have been arranged for the String Octet, including the selection "La Traviata," and that beautiful suite,





**MISS CATHLEEN MULQUEEN.**  
Mezzo-contralto soloist and a member of the 1YA Broadcasting Choir.  
—S. P. Andrew, photo.

"Ballet Suite" from "Le Lac des Cygnes," by Tchaikowsky.

### Broadcast from 2YA

**L**ISTENERS will welcome the well-known Petone Maori Light Quintet, who will make their first studio appearance this evening. The talented combination is not unknown to listeners, having been heard several times during band concert relays.

The quintet will give fifteen minutes of popular vocal and instrumental numbers. Also appearing on this programme will be a new performer in the person of Mr. Arthur Weller, a promising young bass-baritone. Soprano solos of a light nature (two being from musical comedies) will be given by Miss Phyllis Martin, and the humorous portion of the programme will be in the capable hands of the popular entertainer, Mr. Len Ashton. The Salon Orchestra, under the conductorship of Mr. M. T. Dixon, will play suitable incidental music.

### 3YA On the Air

**T**HE station will not observe a silent day, but will go on the air at noon for the Metropolitan Trotting Club meeting at Addington. In the evening there will be a holiday concert.

### 4YA Notes

**T**HE popularity of the first novelty fantasia, presented over the air in New Zealand by the Kalkorai Band some time ago, attained such success that it has encouraged others to follow, and this evening the St. Kilda Band will present a programme depicting "Life in India with the British Army." Every item on the programme will be characteristic of India.

At 8.23 a talk, interspersed with descriptive selections by the band, will be given by Major F. H. Lampen. Major Lampen's long military service in India will add interest to this par-

ticularly fine programme, and it is his intention to describe with as much detail as possible what a British officer's life in India really is like. Major Lampen has an excellent broadcasting voice and possesses a keen sense of humour, so that listeners will be entertained and interested in hearing of his experiences in this country.

The fantasia opens with a selection, describing in musical form "The Battle of Delhi," which was fought in 1857. This selection begins with the chiming of a clock in the Mogul's palace, and is followed by music depicting the break of day, with the songs of the birds in the tropical forest. In the distance is heard Indian airs sung and played by the mutineers. Then an attack is launched, an advance is made by the British cavalry; there is fighting, the banging of the guns, the flight of the rebels, and the ultimate victory, the "Stretto" of which contains "The Campbells Are Coming," and completes a very bright selection. Amy Woodforde-Finden, who is well known for her compositions of the "Pagoda of Flowers" and "Indian Love Lyrics" is represented in the fantasia. A recording of Ketelbey's "Jungle Drums" will be presented as a musical back-

and a young Englishman, Mr. J. Philip Mayhew, who possesses a true bass voice of beautiful quality. These young singers will be heard in several ballads.

### Christchurch Notes

**D**URING the afternoon results from Riccarton will be broadcast. Excerpts from "The Country Girl," "Dorothy," "Rose Marie," "The Geisha," "Merry England," and "The Arcadians" will be sung by the Melodious Quartet; while Miss Nancie Bishop, an elocutionist who was very successful on the professional stage when she was with the Allan Wilkie Shakespearean Company, and who made her first appearance at 3YA recently, will recite a dramatic and two humorous numbers. An attractive instrumental programme will be presented by the Studio Octet under Mr. Harold Beck.

### From 4YA

**T**HE afternoon talk by the Home Science Extension Department of Otago University will be on "Sandwiches and Sandwich Fillings." The evening talk for farmers will be by Mr. C. Weighton on "Shearing Troubles."



**MISSSES EMILY AND DESTIN STRANG,**  
popular duettists from 1YA.  
—S. P. Andrew, photo

ground for the story of a jungle hunt by Major Lampen. To conclude the programme the band will play "Echoes of England." Miss Freda Elmes, soprano, who is the possessor of an exceptionally brilliant broadcasting voice, with perfect diction, will sing three beautiful Indian songs: Rimsky-Korsakoff's "Song of India," Bemberg's "Hindu Song," and Knight-Logan's "Pale Moon."

## WEDNESDAY

### Gleanings from 1YA

**A**LWAYS on the look-out for new talent of a high standard, 1YA has been fortunate in obtaining the services of the Devonport United Band, under the direction of Mr. A. W. Tatton. This band is greatly appreciated by the citizens of Auckland and the suburbs. Three new vocalists also appear on this programme: Miss Sylvia Dobbs, a young soprano; Mr. Jack Johnstone, a young Irishman recently arrived in New Zealand and the possessor of a remarkable voice;

At 4YA the Kenz Orpheans will present a programme of the very latest popular song "hits" and dance tunes. Mr. W. Tait of this combination will present a cornet solo, "Absent," by Metcalfe.

An interesting talk, the first of a series on "Trades and Professions," is included on the programme for this evening. It is the intention of 4YA to broadcast from time to time talks by representatives of the various professions and trades, and Mr. Marshall, the popular auctioneer of Messrs. Clarke and Marshall, will be the first speaker. His subject is entitled "A Day in the Life of an Auctioneer." Mr. Marshall is a very engaging talker, and many of the humorous instances which occur daily in the auction market will be recounted in his fifteen minutes' lecture.

## THURSDAY

### "Home Economics"

**T**HE home science talk from 1YA, 2YA, and 3YA will be on "Home Economics." The talk has been pre-

pared by the Home Science Extension Department of Otago University.

### Auckland Topics

**O**N a recent appearance of the 1YA Broadcasting Choir, two short community sings were held, and these were very much appreciated by listeners all over the country.

This evening, assisted by Mr. Reg Morgan's Orchestra, the choir will again conduct community singing under the direction of Mr. Len Barnes.

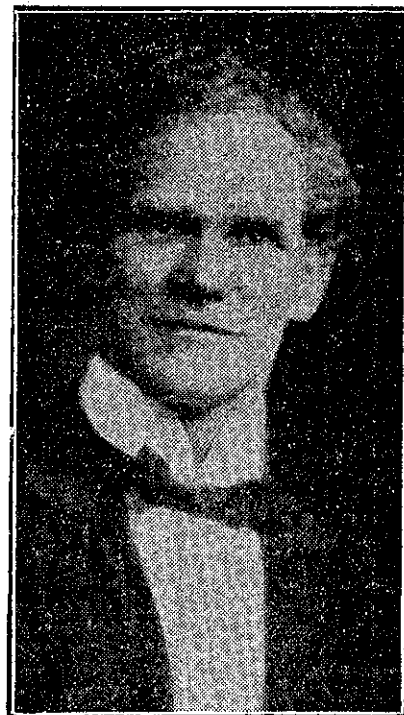
Many of the old songs will be sung, and there will be an atmosphere of joyousness right throughout the proceedings. Two of the members of the choir, Miss M. G. Davidson (contralto) and Mr. P. F. Nash (bass) will contribute solos. During the evening the dramatic sketch, "The Drum," written especially for broadcasting by Mr. E. J. Landon, of Auckland, will be given by members of the choir. Many listeners have expressed appreciation of another sketch entitled "The Signal," written by Mr. Landon, and "The Drum" will be equally dramatic. Dance music will be provided until 11 p.m. by Mr. Reg. Morgan's orchestra.

### Notes from Wellington

**"A TALK on Teeth,"** arranged by the Dental Division of the Department of Health, will be given at 7.40 this evening.

The Wellington Commercial Travelers' and Warehousemen's Association Orchestra and concert party will provide the whole of the evening programme. The orchestra, under Mr. J. F. Woodward, will play a selection of standard and popular light numbers as well as several novelty items. Well-known Wellington artists, including Miss K. McIver (a prize-winner at the recent Competitions), will contribute.

(Concluded on page 29.)



**MR. ARTHUR WRIGHT,**  
a popular bass-baritone, often heard from 1YA.  
—S. P. Andrew, photo.



# Full Programmes for Next

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

## Sunday, November 9

### 1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, NOVEMBER 9.

- 3.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.  
 6.0 : Children's Song Service, conducted by "Uncle Bert."  
 6.55 (approx.): Relay of Divine Service from St. Andrew's Church (Preacher, Rev. Ivo Bertram; Organist, Dr. Neil McDougall).  
 8.30 (approx.): Concertbegoww Orchestra, "Symphony No. 8" (Beethoven).  
 Mezzo-soprano—Miss Kathleen Morrison, (a) "Mary Magdalene" (Harry), (b) "Dawn" (Curran).  
 Trio—Studio Trio, "Liebestraume" (Liszt).  
 Elocution—Mr. J. F. Montague, "From My Scrap-Book" (third series).  
 Piano—Mr. Eric F. B. Waters, "March Grotesque" (Sinding).  
 Choral—Sheffield Orpheus Male Voice Choir, "Hymn Before Action."  
 Mezzo-soprano—Miss Kathleen Morrison, (a) "Pale Yellow Rose" (Phillips), (b) "Wind on the Wheat" (Phillips).  
 Studio Trio, (a) "Serenade" (Drdla), (b) "Liebesfrend" (Kreisler).  
 Elocution—Mr. J. F. Montague, "The Little Irish Mother" (O'Brien).  
 Studio Trio, (a) "Melody in F" (Rubenstein), (b) "The Rosary."  
 Band—P.A.F. Band, "Bells Across the Meadows" (Ketelbey).  
 9.30 (approx.): God save the King.

### 2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, NOVEMBER 9.

- 3.0 : Chimes. From the Town Hall—A relay of "The 150th Anniversary Commemoration of Robert Raikes—the Founder of the Sunday School," to be held under the auspices of the Wellington Sunday School Union. Speakers: Mr. W. E. Howe, President Wellington Sunday School Union; Pastor W. G. Carpenter.  
 6.0 : Children's song service, conducted by Uncle George, assisted by the Taranaki Street Methodist Sunday School Choir.  
 7.0 : Relay of evening service from the Trinity Methodist Church, Wellington South. Preacher, Rev. T. W. Vealie. Organiste, Miss Lillian Thawley, L.A.B. Choirmaster, Mr. M. McLellan.  
 8.15: (approx.) Studio concert by the Wellington Artillery Band, (Conductor, Captain T. Herd) and assisting artists.  
 March—Band, "Austria" (Nowotny).  
 Descriptive overture—"Peace and War" (Round).  
 Soprano—Mrs. E. F. Hollands, "Carissima" (Penn).  
 Cello—Gaspar Cassado, "Melodie Arabe" (Glazounov).  
 Baritone—Mr. Ernest Short, "The Lord is My Light" (Allitsen).  
 Cornet, with band accompaniment—Sergt. W. H. Bowman and Wellington Artillery Band, "The Amateur" (Greenwood).  
 Tenor—Mr. Les Stapp, "A Song and a Dream" (Cadman).  
 Descriptive piece—Band, "A Sunday Parade" (Hawkins).  
 Weather report and station notices.  
 Soprano—Mrs. E. F. Hollands, (a) "The Reason" (Del Reigo), (b) "The World is Waiting for the Sunrise" (Seitz).  
 Serenade—Band, "O Beateous Night" (Evans).  
 Baritone—Mr. Ernest Short, "The Erl King" (Schubert).  
 Violin—Efrem Zimbalist, "Kuruka Kuruka" (Yamada).  
 Selection—Band, "Satanella" (Balfé).  
 Tenor—Mr. Les Stapp, (a) "Onward" (Liddle), (b) "Thoughts."  
 March—Band, "The Copper King" (Fulton).  
 God save the King.

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, NOVEMBER 9.

- 3.0 : Special Afternoon Session.  
 Instrumental—Philadelphia Symphony Orchestra, "Toccata and Fugue in D Minor" (Bach).  
 Talk—Rev. L. McMaster, B.A., B.D. (Christchurch Ministers' Association) "The Churches and World Peace."  
 Vocal solo—Miss L. Corkill, "On Earth, Peace."  
 Talk—Mrs. T. E. Taylor, (North Canterbury W.C.T.U.) "Women and World Peace."  
 Esperanto Song—Miss Joan Carter, "Esperanto Land" (English Translation by Mr. N. M. Bell, M.A.).  
 Talk—Mr. R. M. Laing, M.A. (Christchurch League of Nations Union), "Disarmament and World Peace."  
 Recitation—Master J. Alfrey, "Two Roosters" (Extract from "Disarmament").  
 Talk—Mr. C. R. N. Mackie, (National Peace Council), "The Individual and World Peace."  
 Choral—Trinity Choir, "God So Loved the World" (Stainer).  
 4.0 : Musical recordings.  
 5.30: Song Service by children of Anglican Sunday Schools.  
 6.15: Chimes from studio.

- 6.30: Musical recordings from studio.  
 7.0 : Relay of evening service from Christchurch Anglican Cathedral.  
 8.15 (approx.): Vienna Philharmonic Orchestra, "2nd and 3rd Movements from Symphony No. 8 in F Major" (Beethoven).  
 8.23: Tenor—Mr. Jas. Shaw, "O Vision Entrancing" (Goring-Thomas).  
 8.27: Piano—Mark Hambourg, "Sonata in C Sharp Minor" (Beethoven).  
 8.30: Soprano—Miss Hilda Hutt, "Elizabeth's Prayer" (from "Tannhauser") (Wagner).  
 8.34: Harp—Mr. H. G. Glaysher, "The Minstrel's Adieu to His Native Land."  
 8.40: Bass—Mr. R. S. H. Buchanan, (a) "The Ballad of the Knight" (Lohr), (b) "Come Cushion Your Head" (Coningsby-Clarke).  
 8.45: Soprano and Tenor—Rasona Duo, "A Night in Venice" (Lucantoni).  
 8.49: Choral—Marise Beaulon, Mr. Bordon and Chorus, "Church Scene" (from "Faust") (Gounod).  
 8.56: Tenor—Mr. Jas. Shaw, (a) "Vale" (K. Russell); (b) "If I Might Come To You" (Squire).  
 9.0 : Weather forecast and station notices.  
 9.2 : Band—H.M. Coldstream Guards, "Iolanthe" (Sullivan).  
 9.6 : Soprano—Miss Hilda Hutt, "April Morn" (Batten).  
 9.10: Harp—Mr. H. Glaysher, "Fantasia on Scottish Airs" (Templeton).  
 9.16: Bass—Mr. R. S. H. Buchanan, (a) "Drummer Boy" (Edens); (b) "I Gave You Roses" (Aylward).  
 9.21: Soprano and tenor—Rasona Duo, "It is the Merry Month of May."  
 9.24: Selection—Marek Weber's Orchestra, "Cavalleria Rusticana." God save the King.

### 4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, NOVEMBER 9.

- 3.0 : Chimes. Selected gramophone items.  
 5.30: Children's Song Service, conducted by Big Brother Bill, assisted by Knox Church Sunday School.  
 6.15: Close down.  
 6.30: Relay of evening church service from St. Paul's Cathedral. Preacher: Canon Nevill. Organist and Choirmaster: Mr. E. Heywood, F.R.C.O.  
 7.45: De Greef and Royal Albert Hall Orchestra, "Hungarian Fantasia."  
 Tenor—Richard Crooks, "Open the Gates of the Temple" (Knapp), "The Star of Bethlehem" (Adams).  
 Detroit Symphony Orchestra, "Spanish Rhapsody" (Chabrier).  
 8.15: Relay of concert programme from 3YA, Christchurch.  
 9.30: God save the King.

## Monday, November 10

### 1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, NOVEMBER 10.

SILENT DAY.

### 2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, NOVEMBER 10.

- 3.0 : Chimes—Selected studio items.  
 3.30 and 4.30: Sporting results to hand.  
 5.0 : Children's session, conducted by Uncle Jeff.  
 6.0 : Dinner music session.  
 Suite—Ketelbey's Concert Orchestra, "In a Fairy Realm" (Ketelbey).  
 1—The Moonlight Glade; 2—The Queen Fairy Dances; 3—Gnomes' March.  
 6.12: Tacet.  
 6.15: Columbia, Symphony Orchestra, "March of the Bojaren" (Halvorsen).  
 Cello—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.  
 6.42: Tacet.  
 6.45: J. H. Squire's Celeste Octet, "Memories of Mendelssohn" (arr. Sear).  
 Columbia Symphony Orchestra, "Bridal Procession" (Grieg).  
 6.57: Tacet.  
 7.0 : News session, market reports and sports results.  
 7.40: Book Review—Mr. H. C. South, "Books—Grave and Gay."  
 8.0 : Chimes.  
 Special Studio Presentation of Spohr's Oratorio, "The Last Judgment," by the Combined Anglican Church Choirs of Wellington. Soloists: Soprano, Miss Dorothy Russell; contralto, Mrs. Ray Kemp; tenor, Mr. Roy Hill; bass, Mr. Ray Kemp. Mr. W. Binet Brown will sing the bass parts in quartet numbers. Conductor, Mr. W. A. Gatheridge. Pianiste: Miss Iris Mason.  
 Overture—2YA Orchestra (Conductor, Signor A. P. Truda), "Maddonna" (Mozart-Moses).

# Week-all Stations-to Nov. 16

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

## PART I.

- 8.9 : Chorus (with soprano and bass soli), "Praise His Awful Name."  
 Bass solo—"Come up Hither!"  
 Tenor recitative—"And Lo! a Throne."  
 Tenor solo and chorus—"Holy, Holy, Lord God of Hosts."  
 Soprano recitative—"Behold, the Lamb that was Slain."  
 Tenor solo—"Weep no More."  
 Soprano recitative—"And the Elders Fell Down before the Lamb."  
 Soprano solo and chorus—"All Glory to the Lamb."  
 Tenor recitative—"And Every Creature."  
 Tenor solo and chorus—"Blessing, Honour, Glory and Power."  
 Tenor recitative—"And Lo! a Mighty Host."  
 Soprano recitative—"These, who Passed."  
 Chorus and quartet—"Lord God of Heaven and Earth."  
 8.39 : Selection—2YA Orchestrina, "The Seven Last Words."  
 8.47 : Cello—Pablo Casals, (a) "Traumerel" (Schumann); (b) "Melody in F" (Rubinstein).  
 8.53 : Suite—2YA Orchestrina, "Requiem" (Verdi, arr. Roberts); (a) "Ah! Remember"; (b) "Oh, Lord God."  
 9.0 : Weather report and station notices.  
 9.2 : Cornet—Alex Harris and Halle Orchestra, (a) "Trumpet Voluntary" (Clive Twelvrees); (b) "Solemn Melody" (Purcell).  
 9.10 : Suite—2YA Orchestrina, "Requiem" (Verdi, arr. Roberts), (c) "Sanctus"; (d) "Oh, Lamb of God."

## PART II.

- 9.18 : Bass solo and recitative—"Thus Saith the Lord."  
 Duet for soprano and tenor—"In this Dread Hour Forsake Me Not."

- Chorus—"If with Your Whole Hearts."  
 Tenor solo—"Jehovah now Cometh to Judgment."  
 Chorus—"Destroyed is Babylon."  
 Tenor solo—"It is Ended."  
 Quartet and chorus—"Blest are the Departed."  
 Soprano recitative—"I Saw a New Heaven."  
 Alto recitative—"No Earthly House is Here."  
 Tenor solo and quartet—"Behold, He Soon Shall Come."  
 Chorus and quartet—"Great and Wonderful are all Thy Works."  
 9.48 : Cello—Lauri Kennedy, "Hungarian Rhapsody" (Popper).  
 9.52 : Selection—2YA Orchestrina, (a) "Lord God of Abraham" (Mendelssohn); (b) "Gloria" (from "Mass in B Flat") (Haydn).  
 10.0 : God save the King.

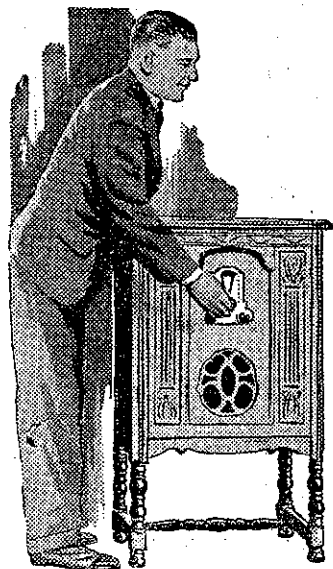
## 3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, NOVEMBER 10.

- 12.0 : Noon—Results of Canterbury Jockey Club's meeting at Riccarton—Interspersed with musical recordings from studio.  
 5.0 : Children's hour, conducted by "Scatterjoy."  
 6.0 : Dinner session.  
 Military Band (of specially selected musicians), "Ever or Never."  
 Sir Hamilton Harty, conducting the Halle Orchestra, "An Irish Symphony—Scherzo" (Sir Hamilton Harty).  
 New Concert Orchestra, "Life in Vienna, Parts 1 and 2."  
 6.14 : Tacet.  
 6.15 : New Concert Orchestra, "Life in Vienna, Parts 3 and 4."  
 Military Band (of specially selected musicians), "The Guards' Patrol."  
 Dinicu and His Orchestra, "Crepuscle" Tango (Bianco).  
 6.29 : Tacet.  
 6.30 : J. H. Squire's Celeste Octet, "Traume" (Wagner, arr. Willoughby).  
 Gustav Holst, conducting the London Symphony Orchestra, "Marching Song" (Gustav Holst).  
 J. H. Squire's Celeste Octet, "Albumblatt" Wagner, arr. Willoughby).  
 The Elite Dance Orchestra, "In Einer Konditorei" Tango (Raymond).  
 6.44 : Tacet.  
 6.45 : Regimental Band of H.M. Grenadier Guards, "Sylvia Ballet, Parts 1 and 2" (Delibes, arr. Kappey), (a) "Valse Lente"; (b) "Pizzicato"; (c) "Barcarolle"; (d) "March."  
 Halle Orchestra, "Londonderry Air" (Hamilton Harty).  
 6.57 : Tacet.  
 7.0 : News session.  
 7.30 : Dialogue—Mr. E. E. Wiltshire and Mr. F. C. Fairclough, "The Story of the Garden." Elementary botany as applied to garden plants.  
 8.0 : Chimes. Band Programme by New Brighton Municipal Band (Conductor, J. Nuttall), and assisted by 3YA Artists.  
 8.1 : March—Band, (a) "Boulder City" (Ord Hume); (b) "You Wanted Someone Else to Play With" (Gilbert).  
 8.8 : Tenor—Mr. C. R. Williamson, (a) "A Dream" (Bartlett); (b) "Love's Garden of Roses" (Haydn Wood).  
 8.14 : Christchurch Broadcasting Trio, "Trio No. 2 in C" (Bohm), (a) "Allegro"; (b) "Largetto"; (c) "Finale."  
 8.24 : Soprano—Miss Lottie Colville, (a) "Golden Dancing Days" (Coningsby Clarke); (b) "Little Lady of the Moon" (Coates).  
 8.30 : Selection—Band, "A Summer's Day" (Greenwood).  
 8.39 : Humour—Mr. H. Instone, "Me and Father" (arr. Instone).  
 8.43 : Circolo Mandolinistico, "Semiramide Overture" (Rossini).  
 8.51 : Cornet duet—Bandsmen J. Nuttall and H. Wilkins, "Jollification."  
 8.55 : Duet—Layton and Johnstone, "Oh Kay Medley" (Gershwin).  
 8.59 : Weather forecast and station notices.  
 9.1 : Chorus—Columbia Light Opera Company, "Gems from Rio Rita."  
 9.5 : Tenor—Mr. C. R. Williamson, (a) "At Dawning" (Cadman); (b) "Charming Chloe" (German).  
 9.11 : Broadcasting Trio, (a) "Berceuse de Jocelyn" (Godard); (b) "Andante Scherzo" (Mathias).  
 9.21 : Humour—Clapham and Dwyer, "At the Races" (Clapham and Dwyer).  
 9.27 : Foxtrots—Band, (a) "Jollity Farm" (Sarony); (b) "Don't Be Like That" (Pinkard).  
 Onestep—Band, (a) "Stein Song" (Colcord-Fenstad).  
 9.36 : Soprano—Miss Lottie Colville, "The Kerry Dance" (Molloy).  
 9.40 : Humour—Mr. H. Instone, "Scottish Patter" (arr. Instone).  
 9.52 : Novelty—Rudy Vallee, "Outside" (Flynn).  
 9.56 : Waltz—Band, (a) "Beautiful Danube" (Strauss); March (b) "Gippsland" (Lithgow).  
 10.5 : God save the King.

## 4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, NOVEMBER 10.

- 3.0 : Chimes—Selected gramophone items.  
 4.25 : Sporting results.  
 5.0 : Chimes. Children's hour, conducted by Big Brother Bill.  
 6.0 : Dinner music.  
 Berlin State Opera Orchestra, "Mignon" (Thomas).

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DIVISION

AUCKLAND

CHRISTCHURCH

WELLINGTON

- Grand Symphony Orchestra, "Tales of Hoffman—Barcarolle."
- 6.12: Tacet.
- 6.15: Edith Lorand's Orchestra, "Faust" Fantasia (Gounod); "Wedding of the Winds" (Hall).
- 6.27: Tacet.
- 6.30: Berlin State Opera Orchestra, "Italiana in Algeria" (Rossini).
- 'Cello—Orabio de Castro, "Nocturne in E Flat" (Chopin).
- 6.42: Tacet.
- 6.45: Grand Symphony Orchestra, "Fra Diavolo" (Auber); "Tales of Hoffman—Entr'acte and Minuet" (Offenbach).
- 6.57: Tacet.
- 7.0 : News session.
- 8.0 : Chimes. Special programme: "A West County Revel." Selection—Orchestra, "Merry England" Nos. 1 and 2 (German).
- 8.16: Baritone—Mr. Jack Clark, (a) "John Barleycorn" (Traditional); (b) "Fairings" (Easthope-Martin).
- 8.22: Selection—Orchestra, "Leek Selection" (Welsh Tunes) (Myddleton).
- 8.29: Tenor—Mr. J. E. Davies, (a) "A Deryn Pur" (Traditional); (b) "Mentra Gwen" (Traditional).
- 8.36: Novelty—Nightingales and Beatrice Harrison, (a) "Nightingales"; (b) "A Summer Night Idyll."
- 8.42: Overture—The Orchestra, (a) "Plymouth Hoe" (Ansell); (b) "Land of Hope and Glory" (Elgar).
- 8.54: Soprano—Miss Dorothy Dagg, (a) "Go Down to Kew in Lilac Time" (Peel); (b) "The Enchanted Forest" (Phillips).
- 9.0 : Weather report and station announcements.
- 9.2 : Patriotic ode—Ketelbey's Concert Orchestra and Choir, "Men of England" (Campbell-Ketelbey).
- 9.10: Selection—The Orchestra, (a) "Merry Pranks"; (b) "Country Dance" (from "As You Like It" Suite) (Quilter).
- 9.17: Tenor—Mr. J. E. Davies, Two Welsh Folk Songs, (Traditional), 1—"The Fair Isle"; 2—"Hunting the Hare."
- 9.23: Chorus—Light Opera Company, "Vocal Gems from the Arcadians."
- 9.31: Suite—The Orchestra, "Lights O' London" (Thorne and Lowry). 1—"Dawn"; 2—"Noon"; 3—"Dusk"; 4—"Midnight."
- 9.46: Baritone—Mr. Jack Clark, (a) "Ballad-monger"; (b) "Jock the Fiddler" (from "Four Songs of the Fair") (Martin).
- 9.52: Squire—Celeste Octet, "The Grasshoppers' Dance" (Bucalossi).
- 9.55: Soprano—Miss Dorothy Dagg, "Someone Brought Me Daffodils."
- 9.58: Descriptive sketch—Fodlin's Brass Band, "The Mill in the Dale."
- 10.2 : God save the King.

## Tuesday, November 11

### IYA, AUCKLAND (900 KILOCYCLES)—TUESDAY, NOVEMBER 11.

- 9.0 : Afternoon session—Selected studio items, including Literary Selection by the Announcer.
- 3.15: Talk—Mrs. Les Crane, "Health of Mind and Body in Relation to Diet."
- 3.30: Further studio items.
- 5.0 : Children's session, conducted by Uncle Dave.
- 6.0 : Dinner music session.
- Royal Albert Hall Orchestra, "Carmen Prelude, Act 1" (Bizet).
- National Symphony Orchestra, "Sylvia Ballet Cortege de Bacchus."
- Organ—Reginald Foort, "Schon Rosmarin" (Kreisler).
- 6.12: Tacet.
- 6.15: Marek Weber's Orchestra, "Vienna by Night" (Komzak).
- 'Cello—Lauri Kennedy, "Hungarian Rhapsody" (Popper).
- 6.27: Tacet.
- 6.30: National Symphony Orchestra, "Bohemian Girl" Selection (Balfe).
- Royal Albert Hall Orchestra, "Carmen Prelude, Act 2" (Bizet).
- Organ—Reginald Foort, "A Brown Bird Singing" (Haydn-Wood).
- 6.42: Tacet.
- 6.45: Royal Opera Orchestra, "Hungarian Dance No. 5" (Brahms).
- H.M. Coldstream Guards, "H.M.S. Pinafore" Selection (Sullivan).
- 6.57: Tacet.
- 7.0 : News and market reports.
- 7.40: Talk—Sir Carrick Robertson, "Cancer."
- 8.0 : Chimes.
- Overture—National Military Band, "The Flying Dutchman" (Wagner).
- 8.9 : Soprano—Miss Sarah Stacpoole, (a) "Some Day" (from "The Vagabond King"); (b) "One Alone" (from "The Desert Song").
- 8.16: Selection—IYA String Octet, under the direction of Mr. Whitford Waugh, "Opera Bouffee" (Finck).
- 8.26: Duet—Miss Sarah Stacpoole and Mr. F. Sutherland, "Trot Here and There" (from "Veronique") (Messenger).
- 8.30: Suite—String Octet, "Petite Suite de Ballet"; (a) "Pas de Deux"; (b) "Pas Seul"; (c) "Ensemble Finale" (Finck).
- 8.40: Mezzo-soprano—Miss Joyce Seth-Smith, "Hindoo Song" (from "Sadko").
- 8.44: Talk—Mr. A. B. Chappell, M.A., "Topical Talk."
- 8.59: Evening forecast and announcements.
- 9.1 : Mandolin Band—Circolo Mandolinistico, "Semiramide Overture."
- 9.9 : Bass-baritone—Mr. Frank Sutherland, (a) "The Desert Song" (from "The Vagabond King") (Romberg); (b) "If I Were King" (from "The Vagabond King") (Coslow).
- 9.16: Selection—String Octet, "The Three Musketeers" (Friml).
- 9.27: Duet—Miss Sarah Stacpoole and Mr. Frank Sutherland, "The Flower Duet" (from "Lilac Time") (Schubert and Clutsam).
- 9.31: 'Cello—W. H. Squire, "Riegen" (Popper).
- 9.35: Selection—String Octet, "La Traviata" (Verdi, arr. Finck).

- 9.40: Mezzo-soprano—Miss Joyce Seth-Smith, (a) "Nuit Resplendissante" (from "Cinq Mars") (Gounod); (b) "Deh! Non Voler Costringere" (from "Alla Bolena") (Donizetti).
- 9.47: Organ—Arthur Meale, "Pilgrim's Song of Hope" (Batiste).
- 9.51: String Octet, (a) "Valse Desalouettes" (from "The Ballet, Les Millions d'Arlequin") (Drigo); (b) "Ballet Suite" (from "Le Lac des Cygnes") (Tchaikowsky). No. 2—"Dance of the Swans." No. 3—"Danse Hongroise."
- 10.0 : God save the King.

### 2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, NOVEMBER 11.

- 3.0 : Chimes—Selected studio items.
- 3.30 and 4.30: Sporting results to hand.
- 5.0 : Children's session, conducted by Big Brother Jack.
- 6.0 : Dinner music session.
- Reg. King's Orchestra, "Garden in the Rain" (Gibbons); "The Song I Love" (de Sylva).
- International Concert Orchestra, "Gold and Silver" (Lehar).
- Victor Olof Sextet, "Cherry Ripe" (Scott).
- 6.12: Tacet.
- 6.15: International Concert Orchestra, "La Spagnola" (Di Chiara).
- Victor Concert Orchestra, "Romance" (Tchaikowsky).
- Violin—Isolde Menges, "Salut D'Amour" (Elgar).
- 6.26: Tacet.
- 6.30: Piccadilly Orchestra, "Friend O' Mine" (Sanderson); "None but the Weary Heart" (Tchaikowsky).
- Orchestra and grand organ—International Concert Orchestra, "My Treasure" (Becucci).
- Victor Olof Sextet, "Minuet" (Boccherini).
- 6.42: Tacet.
- 6.45: Jack Hylton's Orchestra, "Melodious Memories" (Finck).
- International Novelty Orchestra, "Emperor" (Strauss).
- 6.57: Tacet.
- 7.0 : News session, market reports and sports results.
- 7.40: Lecturette—Representative, Agricultural Department, "For the Man on the Land."
- 8.0 : Chimes.
- Overture—Salon Orchestra (Conductor, Mr. M. T. Dixon), "If I Were King" (Adam).
- 8.9 : Bass-baritone—Mr. Arthur Weller, (a) "Four by the Clock" (Mallinson); (b) "Trottin' to the Fair" (Stanford).
- 8.15: Novelty instrumental and vocal—The Petone Maori Light Quintet, in fifteen minutes of popular vocal and instrumental numbers.
- Vocal quartet—"Your Mother and Mine" (Goodwin).
- Steel guitars—"The Laughing Rag" (Moore-Davis).
- Song—R. Paaka, "South Sea Rose" (Baer).
- Duet with steel guitars—Messrs. H. Puketapu and T. Love, "High, High on the Hill Top" (Abraham).
- Vocal quartets with novelty instrumental accompaniment—(a) "The Gipsy Vagabond" (from "Gipsy Love") (Lehar); (b) "Chicken Pie" (Original).
- 8.30: Salon Orchestra, "Eine Kleine Nachtmusik" (Mozart).
- 8.40: Humour—Mr. Len Ashton, "When I Met Connie in the Cornfield."
- 8.46: Soprano—Miss Phyllis Martin, (a) "Whip-poor-will" (from "Sally") (Kern); (b) "The Bubble Song" (from "High Jinks").
- 8.52: Salon Orchestra, "Request Item."
- 9.0 : Weather report and station notices.
- 9.2 : Bass—Mr. Arthur Weller, "Quiberon Bay" (Alison Travers).
- 9.6 : Selection—Salon Orchestra, "Moon Moths" (Kussner).
- 9.14: Humour—Mr. Len Ashton, "The Umbrella" (Weston and Lee).
- 9.19: Soprano—Miss Phyllis Martin, "Spring's Awakening" (Sanderson).
- 9.23: Selection—Salon Orchestra, (a) "Siesta" (Norton); (b) "Scarfy Dance" (Chaminade).
- 9.30: Dance Programme.
- Foxtrots—Tom Gerun and His Orchestra, "The New Step."
- Jack Denny and His Mount Royal Hotel Orchestra, "Blondy" (Rubila); "Hang on to Me" (Klages-Greer).
- Vocal—Bob Miller and His Hinky Dinkers, "When I Put on My Long White Robe" (Miller).
- Foxtrots—Slatz Randall and His Orchestra, "I'd Do Anything For You."
- 9.45: Foxtrot—Lloyd Huntley and His Isle o' Blues Orchestra, "Head Low."
- Waltz—Carl Fenton and His Orchestra, "Rock Me to Sleep in Your Arms" (A. P. and C. de Voll).
- Foxtrots—Tom Gerun and His Orchestra, "The Web of Love."
- 9.54: Jack Denny and His Mount Royal Hotel Orchestra, "Pretty Little You."
- Mill's Hotzy Totsy Gang, "Some Fun" (Von Eps).
- Jack Denny and His Mount Royal Hotel Orchestra, "Why Can't You Love that Way" (Bourne-Val-Creamer).
- Vocal duet—Al and Pete, "At Nesting Time" (Bontsema).
- Foxtrots—Louis Kaizman and His Brunswick Orchestra, "Once Upon a Time" (Thompson-Stamper).
- 10.9 : Jesse Stafford and His Orchestra, "Feelin' the Way I Do."
- Lloyd Huntley and His Isle o' Blues Orchestra, "Same Old Moon, Same Old June" (Friend).
- Tom Gerun and His Orchestra, "Sing You Sinners."
- Waltz—Bob Haring and His Orchestra, "All That I'm Asking is Sympathy" (Davis-Burke).
- Foxtrots—Meyer Davis' Hotel Astor Orchestra, "A Year From To-day."
- Slatz Randall and His Orchestra, "Blame It on the Moon."
- 10.24: Tom Gerun and His Orchestra, "In My Little Hope Chest."
- Meyer Davis' Hotel Astor Orchestra, "He's So Unusual."

- Vocal—Bob Miller and His Hinky Dinkers, "Golden Wings" (Miller).  
 10.33: Foxtrots—Jesse Stafford and His Palace Hotel Orchestra, "I Don't Want Your Kisses" (Fisher-Broones).  
 Tom Clines and His Music, "Time Will Tell" (Gilbert-Baer).  
 Meyer Davis' Hotel Astor Orchestra, "Love."  
 Tom Clines and His Music, "Perhaps" (Quizas).  
 Waltz—Jesse Stafford and His Palace Hotel Orchestra, "Until the End" (Fisher-Broones).  
 10.51: Foxtrots—Jimmie Joy and His Orchestra, "Harmonica Harry."  
 Jesse Stafford and His Orchestra, "Last Night Honey."  
 Jimmy Joy and His Orchestra, "Can't You Understand."  
 11.0 : God save the King.

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, NOVEMBER 11.

- 12.0 : Noon—Results of New Zealand Metropolitan Trotting Club's Trotting Club's meeting at Addington—Interspersed with musical recordings from the studio.
- 6.0 : Dinner session.  
 Edison Bell Symphony Orchestra, Paris, "Ballet Egyptien" Parts 1-4.  
 Marcu's Roumanian Orchestra, "It is Written on Your Lips."  
 6.14: Tacet.  
 6.15: Edison Bell Symphony Orchestra, Paris, "Manon" Parts 1-4.  
 The Scala Trio, "Après un Reve" (Faure).  
 6.29: Tacet.  
 6.30: Edison Bell Symphony Orchestra, Paris, "Carmen" Selection (Bizet).  
 Band of H.M. Scots Guards, "The Grasshoppers' Dance" (Bucalossi).  
 Edison Bell Symphony Orchestra, Paris, "Light Cavalry—Overture."  
 6.44: Tacet.  
 6.45: La Scala Orchestra, "Say It With Song" Selection (de Sylva, Brown, Henderson, Jolson).  
 The Scala Trio, "Elegie" (Massenet).  
 Marcu's Roumanian Orchestra, "Two Red Roses, a Gentle Kiss."  
 6.57: Tacet.  
 7.0 : News session.  
 7.30: Sports results.  
 8.0 : Chimes. Concert Programme.  
 Overture—Band of H.M. Grenadier Guards, "Sir Harry Lauder Medley" (Lauder).  
 8.8 : Bass—Mr. E. J. Johnson, (a) "Kings of the Road" (Bevan); (b) "There's a Land" (Allitsen).  
 8.16: Violin—Miss Irene Morris, "Romance" (Tours).  
 8.21: Negro spiritual—Fisk Jubilee Singers, "Ezekiel Saw The Wheel."  
 8.24: Mezzo-soprano—Miss Lucy Fullwood, (a) "Time's Roses" (Barry); (b) "I Love the Moon" (Rubens); (c) "Wake Up" (Phillips).  
 8.34: Broadcasting Trio, (a) "Prelude in C Sharp Minor" (Rachmaninoff); (b) "Songs of the Volga Boatmen" (Traditional); (c) "Mazurka Russe" (Glinka).  
 8.42: Humour—Mr. George Titchener, "My Advice" (Godden).  
 8.47: Valencia Quartet, (a) "The Lass of Richmond Hill" (Eaton Fanning); (b) "Begone Dull Care" (Eaton Fanning).  
 8.52: Guitar—Roy Smeck and Art Kahn, (a) "Itchin' Fingers" (Robison).  
 Saxophone—Rudy Wiedoeft, (b) "Rubenola."  
 8.58: Weather forecast and station notices.  
 9.0 : Selection—Australian Commonwealth Band, "Slidin' Thro' the Rye."  
 9.6 : Tenor—Mr. T. G. Rogers, (a) "Land of Dreams" (Idle); (b) "If You Were Here" (Squire).  
 9.13: Chorus—Sheffield Orpheus Male Voice Choir, "The Lincolnshire Poacher" (Traditional).  
 9.16: Violin—Miss Irene Morris, "Liebeslied" (Kreisler).  
 9.19: Miss Jean Johnson, (a) "Can't Remember" (Goatley); (b) "Love the Pedlar" (German).  
 9.26: Broadcasting Trio, (a) "Nocturne" (Widor); (b) "Pierette" (Chaminade); (c) "Tarantelle" (Trouselle).  
 9.36: Tenor and baritone—Valetta Duo, "Tenor and Baritone" (Wilson).  
 9.40: Humour in song and story—Mr. George Titchener, (a) "The Song Without a Name" (Hastings); (b) "The Future Mrs. 'Awkins."  
 9.47: Sheffield Orpheus Male Voice Choir, "There is a Tavern in the Town."  
 9.50: Valincia Quartet, (a) "The Spanish Cavalier" (Hendriksen); (b) "It Was the Time of Roses" (Robertson).  
 9.59: Foxtrots—Jack Denny and His Mount Royal Hotel Orchestra, "Hangin' on the Garden Gate" (Kahn, Florito).  
 Ben Bernie and His Orchestra, "Have a Little Faith in Me."  
 Jack Denny and His Mount Royal Hotel Orchestra, "A Night of Happiness" (Conrad).  
 Waltz—Castlewood Marimba Band, "Springtime, Lovetime, You."  
 Foxtrots—Colonial Club Orchestra, "I Never Dreamt."  
 Bob Haring and His Orchestra, "I'm in the Market for You."  
 10.18: Vocal trio—Earl Burtnett's Biltmore Trio, "If I Can't Have You."  
 Foxtrots—Tom Clines and His Music, "So Sympathetic."  
 Ben Bernie and His Orchestra, "Let Me Sing and I'm Happy" (Berlin).  
 Tom Clines and His Music, "Alone With My Dreams."  
 Waltz—Castlewood Marimba Band, "Melancholy Moon."  
 10.33: Foxtrots—Lloyd Huntley and His Isle O'Blues Orchestra, "Just Another Night With You" (Newman).  
 Tom Clines and His Music, "The Free and Easy."  
 Lloyd Huntley and His Isle O'Blues Orchestra, "Take Me."  
 Vocal trio—Earl Burtnett's Biltmore Trio, "Out in the Past."  
 10.45: Foxtrots—Colonial Club Orchestra, "I'm on a Diet of Love" (Gilbert, Baer); "Like a Dream" (Rose, Russell, Solomon); "We'll Build a Little World of Our Own" (Brockman).  
 Bob Haring and His Orchestra, "Just Like in a Story Book."

- Waltz—Tom Clines and His Music, "It Must Be You" (Turk, Ahlert).  
 11.0 : God save the King.

### 4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, NOVEMBER 11.

- 3.0 : Chimes—Selected gramophone records.  
 5.0 : Chimes. Children's hour, conducted by Uncle Bert.  
 6.0 : Dinner session.  
 Grand Symphony Orchestra, "Raymond Overture" Parts 1 and 2.  
 Edith Lorand's Orchestra, "Wine, Woman and Song" (Joh. Strauss).  
 Orchestra Mascotte with Edith Lorand, "Siren Magic" (Waldteufel).  
 6.13: Tacet.  
 6.15: Orchestra of the Opera Comique, Paris, "Scenes Pittoresques," (a) "Marche"; (b) "Fete Boheme" (Massenet).  
 Dr. Ormandy's Instrumental Trio, "Barcarolle" (Offenbach).  
 Edith Lorand's Orchestra, "Minuet" (Boccherini).  
 6.29: Tacet.  
 6.30: Edith Lorand's Orchestra, "Tales from the Vienna Woods."  
 The Royal Music Makers, "Ah! Sweet Mystery of Life."  
 Orchestra Mascotte with Edith Lorand, "I'd Like to Kiss the Ladies."  
 6.44: Tacet.  
 6.45: Edith Lorand's Orchestra, "Toreador and Andalous" (Rubinstein); "Roses of the South" (Joh. Strauss).  
 Dr. Ormandy's Instrumental Trio, "From the Land of the Sky-Blue."  
 The Royal Music Makers, "Kiss Me Again" (Herbert).  
 6.57: Tacet.  
 7.0 : News session.  
 7.40: Talk—R. W. Coupland, "Tourist Resorts."  
 8.0 : Special Studio Programme, entitled, "Life in India with the British Army" by St. Kilda Band, under the conductorship of Mr. Jas. Dixon, assisted by 4YA Artists.  
 March—Band, "Cavalry of the Clouds" (Alford).  
 Intermezzo—Band, "Evening Revels" (Ham).  
 8.14: Soprano—Miss Freda Elmes, (a) "Hindoo Song" (Bemberg); (b) "Pale Moon" (Knight-Logan).  
 8.20: Organ—Jesse Crawford, "Indian Love Call" (Friml).  
 8.23: During the presentation of the following band and orchestral descriptive items, Major F. H. Lampen will talk on "A British Officer's Life in India."  
 Fantasia—The Band. 1—"The Battle of Delhi" (Pridham).  
 Synopsis: The Mogul's Palace—Break of Day—Indian airs in the distance—Advance of British Cavalry—Flight of Mutineers—Victory—Campbells are Coming.  
 Song cycle—Band. 2—"Four Indian Love Lyrics" (Finden).  
 Weather report and station announcements.  
 Fantasia—Band. 3—"A Hunting Trip" (Holloway).  
 4—Ketelbey's Concert Orchestra, "Jungle Drums" (Ketelbey).  
 Selection, 5—Band, "Country Life" (Le Dua).  
 9.45: Soprano—Miss F. Elmes, "Song of India" (Rimsky-Korsakoff).  
 9.49: Selection—Band, "Echoes of England" (Greenwood).  
 God save the King.

## Wednesday, November 12

### 1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, NOVEMBER 12.

- 3.0 : Afternoon session—Selected Studio Items, including literary selection by the Announcer.  
 5.0 : Children's Session, conducted by "Uncle Tom."  
 6.0 : Dinner session.  
 Herman Finck's Orchestra, "Waldteufel Memories" (Arr. Finck).  
 Cello—W. H. Squire, "Gavotte" (Mehul).  
 Mandolin Band—Circolo Mandolinistico, "Torna A Surriento".  
 6.13: Tacet.  
 6.15: B.B.C. Wireless Military Band, "Dance of the Tumblers."  
 Squire's Celeste Octet, "Funeral March of a Marionette" (Gounod).  
 Saxophone—Chester Hazlett, "Valse Inspiration" (Hazlett).  
 Plaza Theatre Orchestra, "Pearl o' Mine" (Fletcher).  
 6.28: Tacet.  
 6.30: Waltz—New Concert Orchestra, "Nights of Fragrance" (Ziehrer).  
 Quartet—Squire's Celeste Octet, "Air on G String" (Bach).  
 Saxophone—Chester Hazlett, "To a Wild Rose" (MacDowell).  
 Plaza Theatre Orchestra, "Bal Masque" (Fletcher).  
 6.43: Tacet.  
 6.45: Selection—Circolo Mandolinistico, "Stephanie Gavotte" (Czibulka).  
 B.B.C. Wireless Military Band, "Goliwog's Cake Walk" (Debussy).  
 Cello—W. H. Squire, "Madrigale" (Simonetti-Squire).  
 New Concert Orchestra, "Vienna Maidens" (Ziehrer).  
 6.58: Tacet.  
 7.0 : News and Market Reports.  
 7.40: Talk—Miss Briar Gardner—"Pottery."  
 8.0 : Chimes.  
 Selection—Devonport United Band, under conductorship of Mr. A. W. Tatton, "Knight Errant" (Trussell).  
 8.11: Tenor—Mr. Jack Johnston: (a) "Duna" (McGill); (b) "Believe Me if all Those Endearing Young Charms" (Moore).  
 8.18: March—Devonport United Band, "St. Elmo" (Keller).  
 Selection—"Saffo" (Pacini).  
 8.34: Soprano—Miss Sylvia Dobbs, "Little Boy Blue" (Nevin).  
 8.38: Piano—Mark Hambourg, "Rakoczy March" (Liszt).

- 8.42: Polka—Devonport United Band (Soloist: Mr. H. Tatton), "Titanla" (Rimmer).  
 8.48: Bass—Mr. J. Philip Mayhew, "Blow, Blow Thou Winter Wind" (Sargeant).  
 8.52: Waltz—Devonport United Band, "Willowdene" (Rimmer).  
 9.0: Evening weather forecast and announcements.  
 9.2: Selection—Marek Weber's Orchestra, "Tales from the Vienna Woods".  
 9.10: Tenor—Mr. Jack Johnston, "Passing By" (Purcell).  
 9.14: Selection—Devonport United Band, "Maritana" (Wallace, arr. Trussell).  
 9.29: Soprano—Miss Sylvia Dobbs: (a) "Melisande in the Wood" (Goetz); (b) "At Twilight" (Nevin).  
 9.36: Euphonium—Mr. J. Robinson, "Broken Melody" (Van Biene).  
 9.42: Sea Chanteys—John Goss and Cathedral Male Quartet: (a) "Lowland" (Arr. Taylor); (b) "Highland Laddie" (Harris).  
 9.46: Bass—Mr. J. Philip Mayhew: (a) "Within These Sacred Bowers" (Mozart); (b) "Mine Enemy" (Rudd).  
 9.53: Cornet—Mr. W. Elder, "A Perfect Day" (Bond).  
 March—Devonport United Band, "El Abanico" (Hume).  
 10.1: God save the King.

**4YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, NOVEMBER 12.**  
**SILENT DAY.**

**3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, NOV. 12.**

- 12 noon: Results of Canterbury Jockey Club's meeting at Riccarton, interspersed with musical recordings from studio.  
 5.0: Children's hour, conducted by "Uncle John."  
 6.0: Dinner session:  
 New Symphony Orchestra, "Le Cid" Ballet Music: (a) Castillane, (b) Aubade, (c) Andalouse, (d) Aragonaise (Massenet).  
 Violin—Heifetz, (a) "Joha" (De Falla), (b) "Puck" (Grieg).  
 Marek Weber and His Orchestra, "Menuett No. 1" (Paderewski).  
 6.14: Tacet.  
 6.15: Band of H.M. Coldstream Guards, "Iolanthe" (Sullivan).  
 The London Orchestra, "Valse Memories," Parts 1 and 2 (arr. Somers).  
 Organ—R. E. McPherson, "Ninette" (Maud).  
 6.28: Tacet.  
 6.30: New Symphony Orchestra, "Le Cid" Ballet Music: (a) Madrilene, (b) Navarraise (Massenet).  
 Violin—Heifetz, "On Wings of Song" (Mendelssohn).  
 Band of H.M. Coldstream Guards, "Pirates of Penzance" (Sullivan).  
 6.43: Tacet.  
 6.45: Marek Weber's Orchestra, "I Pagliacci" (Leoncavallo).  
 Organ—R. E. McPherson, "A Japanese Sunset" (Deppen).  
 Marek Weber's Orchestra, "Cœur Brise" (Gillet).  
 6.59: Tacet.  
 7.0: News session.  
 8.0: Chimes. Light operatic and miscellaneous programme:  
 Overture—Band of H.M. Coldstream Guards, "Martha" Selection.  
 8.8: Mezzo-contralto—Miss Millicent Jennings with choral refrain, "Under the Deodar" (from "The Country Girl"—Monckton).  
 Bass—Mr. T. D. Williams, "A Chip of the Old Block" (Squire).  
 8.14: Studio Octet (Conductor, Harold Beck), (a) "Excerpts from 'Rienzi' Overture" (Wagner), (b) "Entr'acte" (Dubois).  
 8.21: Soprano—Miss Frances Hamerton, "Moon Enchanted" (Besley).  
 8.24: Piano—Miss Ellis Gilders, "Andante and Rondo Capriccioso" (Mendelssohn).  
 8.30: Mezzo-contralto and bass—Miss Millicent Jennings and Mr. T. D. Williams, "No More" (Messenger).  
 8.33: Halle Orchestra, "Rosamunde" Ballet Music" (Schubert).  
 8.41: Recitation—Miss Nancie Bishop, "The Crowning of Dreaming John."  
 8.45: Studio Octet, (a) "Dance Triste" (Hahn), (b) "Scene de l'Essagne" (from "La Fete chez Therese"—Hahn).  
 8.52: Chorus—Melodious Quartet, "You Swear to be Good and True" (from "Dorothy"—Cellier).  
 8.56: Piccolo duet—Gennin Bros. and Bournemouth Municipal Orchestra, "Merry Brothers" (Gennin).  
 9.0: Weather forecast and station notices.  
 9.2: Studio Octet, selection from "Faust" (Gounod).  
 9.15: Soprano and tenor—Melody Duo, "Indian Love Call" (from "Rose Marie"—Friml).  
 Chorus—The Melodious Quartet, "Happy Japan" (from "Geisha").  
 9.21: Piano—Miss Ellis Gilders, "Nocturne No. 13" (Chopin).  
 9.26: Chorus—Melodious Quartet, "The Rajah of Bhong" (Monckton).  
 Mezzo-contralto and tenor—Miss Millicent Jennings and Mr. Russell Sumner, "Quarrelling" (Monckton).  
 9.32: Studio String Quartet, "Scherzo" (Cherubini).  
 9.40: Bass—Mr. T. D. Williams, "My Mother" (from "Arcadians").  
 9.43: Tenor and chorus—Mr. Russell Sumner, "Under the Moon" (Messenger).  
 Humour—Miss Nancie Bishop, (a) "Greetings" (Phyllis Parker), (b) "Out of Her Reckoning" (Anon.).  
 9.59: Studio Octet, (a) "Gipsy Air" (Sarasate), (b) "Traumerei" (Schumann), (c) "Il Bacio" (Arditi).  
 10.0: Soprano and tenor—Melody Duo, "Lightly, Lightly" (Messenger).  
 Chorus—Melodious Quartet, "The Barley Mow" (German).  
 10.5: March—Band of H.M. Grenadier Guards, "Anglo-American March."  
 10.8: God save the King.

**4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, NOVEMBER 12.**

- 3.0: Chimes. Selected gramophone items.  
 3.15: Lecturette—"Sandwiches and Sandwich Fillings," talk arranged by Home Science Extension Department of Otago University under auspices of 4YA Primary Productions Committee.  
 4.25: Sporting results.  
 5.0: Chimes. Children's hour, conducted by "Big Brother Bill."  
 6.0: Dinner session:  
 International Novelty Orchestra, "Emperor" (J. Strauss).  
 Vienna Philharmonic Orchestra, "Ruins of Athens" (Beethoven).  
 Organ—Sydney Gustard, "Poupee Valsante" (Poldini).  
 International Novelty Orchestra, "Gold and Silver" (Franz Lehar).  
 6.14: Tacet.  
 6.15: The Palladium Orchestra, "The Grasshopper's Dance" (Bucalossi).  
 Vienna Philharmonic Orchestra, "Turkish March" (Mozart).  
 Band of H.M. Coldstream Guards, "Morning, Noon, and Night" (Suppe).  
 The Rhythmic Eight, "Neapolitan Nights" (Zamecnik).  
 6.29: Tacet.  
 6.30: The Palladium Orchestra, "La Siesta" (Barcarolle) (Norton).  
 Zonophone Salon Orchestra, "Love's Garden of Roses" (Haydn-Wood).  
 Organ—Sydney Gustard, "Un Peu d'Amour" (Silesu).  
 Zonophone Salon Orchestra, "Mighty Lak' a Rose" (Nevin).  
 6.44: Tacet.  
 6.45: Marek Weber and His Orchestra, "Faust" Selection (Gounod).  
 Band of H.M. Coldstream Guards, "Pique Dame" Overture (Suppe).  
 6.57: Tacet.  
 7.0: News session.  
 7.15: Talk—Mr. C. Weighton, under auspices of 4YA Primary Productions Committee, "Shearing Troubles."  
 8.0: Chimes. Overture—Colonial Club Orchestra, "Rio Rita Medley."  
 8.9: Baritone—Mr. R. W. Fox, (a) "The West's Awake" (Davis), (b) "Thy Beaming Eyes" (MacDowell).  
 8.15: Popular melodies—Kenz Orpheans, (a) "Pickin' Petals Off of Daisies" (Henderson), (b) "Lucky Me, Lovable You" (Ager).  
 8.23: Talk—Mr. Marshall, "A Day in the Life of an Auctioneer."  
 8.38: Foxtrot—Kenz Orpheans, "Without You, Emlaine" (Rose).  
 8.46: Soprano—Miss Rita Holmes, "Live, Laugh, and Love" (Klein).  
 8.49: Cornet—W. Tate, of Orpheans, "Absent" (Metcalfe).  
 8.53: Scotch humour—Mr. B. Brown, "When I Met McKay" (Lauder).  
 8.57: Popular melodies—Kenz Orpheans, "Singin' a Vagabond Song."  
 9.1: Weather report and station announcements.  
 9.3: Baritone—Mr. R. W. Fox, "Pass Everyman" (Sanderson).  
 9.6: Valse and foxtrot—Kenz Orpheans, (a) "Another Kiss" (Schertzinger), (b) "Punch and Judy Show" (Black).  
 9.14: Soprano—Miss Rita Holmes, (a) "Some Day Waiting Will End" (Caryll), (b) "Love's Old Sweet Song" (Molloy).  
 9.20: Valse—Kenz Orpheans, "Love Me" (Aivaz).  
 9.24: Scotch humour—Mr. B. Brown, (a) "I Like My Old Home Town" (Lauder), (b) "Bonnie Lizzie Lindsay" (Lauder).  
 9.30: Dance session:  
 Foxtrots—Tom Clines and His Music, "Miss Wonderful" (Bryan-Ward).  
 Roger Wolfe Kahn and His Orchestra, "Cooking Breakfast for the One I Love" (Rose-Tobias).  
 Tom Clines and His Music, "Somebody Mighty Like You."  
 Herbert Gordon and His Hotel Ten Eyck Whispering Orchestra, "You Can't Believe My Eyes" (Bryan-Meyer).  
 Abe Lyman and His California Orchestra, "The Rogue Song."  
 9.45: Vocal—Dick Robertson, "Singin' in the Bath tub."  
 Foxtrots—Herbert Gordon and His Hotel Ten Eyck Whispering Orchestra, "If I Can't Have You" (Bryan-Meyer).  
 Isham Jones's Orchestra, "Nina Rosa" (Caesar-Romberg).  
 Abel Lyman and His California Orchestra, "When I'm Looking at You" (Grey-Stothart).  
 Waltz—Isham Jones's Orchestra, "Your Smiles, Your Tears."  
 10.0: Foxtrots—Jack Denny and His Mount Royal Hotel Orchestra, "A Night of Happiness" (Conrad-Mitchell-Gottler); "Beside an Open Fireplace" (Denniker-Osborne); "Hangin' on the Garden Gate" (Kahn-Fiorito); "Just Can't Be Bothered with Me" (Kahn-Simons).  
 10.12: Vocal—Belle Baker, "I'm Walking with the Moonbeams."  
 Foxtrots—Roger Wolfe Kahn and His Orchestra, "When a Woman Loves a Man" (Rose-Rainger).  
 Bob Haring and His Orchestra, "Do Ya' Love Me?"  
 Waltz—Carter's Orchestra, "California Sunshine" (Ford-Earl).  
 10.24: Foxtrots—Bob Haring and His Orchestra, "Where You Are."  
 Ben Bernie and His Orchestra, "West Wind."  
 10.30: The A. and P. Gipsies, "Gipsy Dream Rose."  
 Colonial Club Orchestra, "Why Do You Suppose?"  
 Bob Haring and His Orchestra, "Under a Texas Moon" (Perkins).  
 10.39: Vocal—Dick Robertson, "Lady Luck" (Perkins).  
 Foxtrots—Colonial Club Orchestra, "My Man is on the Make."  
 Ben Bernie and His Orchestra, "The One Girl" (Youmans).  
 Waltz—Carter's Orchestra, "Old Virginia Moon" (Crawford-Kahn).  
 Foxtrots—Abe Lyman and His California Orchestra, "Lucky Me, Lovable You" (Yellen-Ager).  
 Fred Hamm and His Orchestra, "We Love Us."  
 Abe Lyman and His California Orchestra, "Love Ain't Nothin' but the Blues" (Goodwin-Alter).  
 11.0: God save the King.



# Thursday, November 13

## 11A, AUCKLAND (900 KILOCYCLES)—THURSDAY, NOVEMBER 13.

- 3.0 : Afternoon session—Selected studio items, including Literary selection by the Announcer.
- 3.15: Lecture—"Home Economics." Talk arranged by the Home Science Extension Department, Otago University.
- 3.30: Further selected studio items.
- 5.0 : Children's session, conducted by Peter Pan."
- 6.0 : Dinner session.
- Royal Opera Orchestra, "Praeludium" (Jarnfeldt).  
Cello—Pablo Casals, "Melody in F" (Rubinstein).  
Waltz—Royal Opera Orchestra, "Eugen Onegin" (Tchaikowsky).  
Baialaika Orchestra, "Shining Moon" (Russian folk song).
- 6.15: Paul Whiteman's Orchestra, "Suite of Serenades" (Herbert): 1. Spanish; 2. Chinese; 3. Cuban; 4. Oriental.  
Philadelphia Symphony Orchestra, "Tales From the Vienna Woods."
- 6.27: Tacet.
- 6.30: Royal Opera Orchestra, "Berceuse" (Jarnfeldt).  
Cello—Pablo Casals, "Traumerei" (Schumann).  
Male Quartet, The Rounders, "Ohlo-E" (Kahn).  
San Francisco Symphony Orchestra, (a) "Serenade" (Volkman), (b) "Flight of the Bumble Bee" (Rimsky-Korsakov).
- 6.42: Tacet.
- 6.45: Chicago Symphony Orchestra, (a) "Valse Triste" (Sibelius); (b) "Funeral March of a Marionette" (Gounod).  
San Francisco Symphony Orchestra, "Marche Militaire" (Schubert).
- 6.57: Tacet.
- 7.0 : News and market reports.
- 7.40: Talk—Mr. H. H. Driver, "Book Review."
- 8.0 : Chimes.
- Overture—Reginald Morgan and His Orchestra, "Scottish Medley."
- 8.7 : Community Singing—1YA Broadcasting Choir, assisted by Reg. Morgan and His Orchestra. Song leader: Mr. Len Barnes. Soloist: Mr. P. F. Nash.  
Mr. P. F. Nash, "A Rollicking Rolling Stone" (Fisher); "A Devonshire Wedding" (Phillips).
- 8.40: Sketch—Broadcasting Choir, "The Drum" (E. J. Landon).
- 9.0 : Evening weather forecast and announcements.
- 9.2: Regina d Morgan and His Orchestra, "Iris" (Revel).
- 9.6 : Community Singing—Broadcasting Choir, assisted by Reg. Morgan and His Orchestra. Song leader: Mr. Len Barnes. Soloist: Miss M. G. Davidson.  
Miss M G Davidson, "The Little Road to Kerry" (Cadman), "Whatever is Best" (Lohr).
- 9.30: Programme of dance music by Reginald Morgan and His Orchestra.
- 11.0 : God save the King.

## 2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, NOVEMBER 13.

- 3.0 : Chimes. Selected studio items.
- 3.15: Lecture—"Home Economics" Talk arranged by the Home Science Extension Department of Otago University.
- 3.30: At intervals during this session progress reports of the cricket match West Indies v. Wellington and other sporting results will be broadcast.
- 5.0 : Children's session conducted by "Uncle George."
- 6.0 : Dinner music session:  
H.M. Coldstream Guards Band, "Poet and Peasant" (Suppe).  
Symphony Orchestra, "Love, the Magician" (De Falla).
- 6.12: Tacet.
- 6.15: National Military Band, "Liberty Bell" (Sousa).  
International Novelty Quartet, "Cuckoo" (Jonasson).  
Jack Hylton's Orchestra, "Spanish Rose" (Pearson).  
Xylophone—Sam Herman, "Al Fresco."
- 6.27: Tacet.
- 6.30: New Light Symphony Orchestra, "In a Clock Store" (Orth).  
Royal Opera Orchestra, "Marche Hongroise" (Berlioz).  
Symphony Orchestra, "Spanish Dance" (De Falla).
- 6.42: Tacet.
- 6.45: Schottische—International Novelty Quartet, "Lena" (Mewes).  
Organ, piano, trombone, and harp—Silkret's Rhythm Melodists, "When You're With Somebody Else" (Gilbert).  
Jack Hylton's Orchestra, "The Angelus Was Ringing" (Damarell).  
National Military Band, "El Capitan" (Sousa).
- 6.57: Tacet.
- 7.0 : News session, market reports and sports results.
- 7.40: Talk—Mr. A. D. Brice, B.D.S., "Children's Teeth," Dental Division of the Department of Health.
- 8.0 : Chimes. Studio concert by the Wellington Commercial Travellers and Warehousemen's Association Orchestra and concert party:  
Overture—The Orchestra (Conductor, Mr. J. F. Woodward), "Ruy Blas" (Mendelssohn).
- 8.9 : Soprano—Miss K. McIver, "Voi Lo Sapete" (from "Cavalleria Rusticana" (Mascagni)).
- 8.13: Piano—Miss Edna Sneddon, "Hungarian Rhapsody No. 10" (Liszt).
- 8.20: Baritone—Mr. Harry Matthew, (a) "The Leader of the Town Brass Band" (Longstaffe), (b) "Achal by the Sea" (Lawrence).

- 8.26: Novelty—The Orchestra, "Grasshopper's Dance" (Bucalossi).
- 8.32: Whistling solo—Mr. Len Peters, in a medley of popular airs.
- 8.36: Dialogue—George Graves and Myles Clifton, "The 'Ole in the Road."
- 8.44: The Orchestra, "Lightning Switch" (Alford) (selection).
- 8.52: Light baritone—Mr. E. Quirke, "Serenata" (Toselli).
- 8.56: Popular song—Mr. E. Elliott, "Lazy Louisiana Moon" (Donaldson).
- 9.0 : Weather report and station notices.
- 9.2 : March—The Orchestra, "Pomp and Circumstance" (Elgar).
- 9.5 : Soprano—Miss K. McIver, (a) "Songs My Mother Taught Me" (Dvorak), (b) "Yesterday and To-day" (Spross).
- 9.10: Baritone—Mr. W. Church, (a) "The Blind Ploughman" (Coningsby Clarke), (b) "A Devonshire Wedding" (Lyall Phillips).
- 9.16: Ballet music—The Orchestra, "Faust" Ballet Music" (Gounod).
- 9.26: Contralto—Miss Iris Potter, (a) "A Summer Night" (Goring Thomas), (b) "A Memory" (Goring Thomas).
- 9.32: Whistling solo—Mr. Len Peters in a medley of popular airs.
- 9.36: Humour—Stuart Robertson, (a) "Villikins and His Dinah," (b) "Some Folks Like to Sigh," (c) "Bonnie," (d) "Down in Demarara."
- 9.42: Selection—Orchestra, "Sunny" (Kern).
- 9.50: Light baritone—Mr. E. Quirke, "The Fishermen of England" (Montague Phillips).
- 9.54: Banjo—De Pietro, "Frivolous Joe" (De Pietro).
- 9.58: Popular songs—Mr. E. Elliott, (a) "With You" (Berlin), (b) "Night of Happiness" (Conrad, Mitchell, and Gottler).
- 10.3 : March—Orchestra, "Jollity" (Gangbleger).
- 10.7 : God save the King.

## 3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, NOV. 13.

- 12 noon: Results of New Zealand Metropolitan Trotting Club's meeting at Addington, interspersed with music recordings from studio.
- 3.15: Talk, "Home Economics," arranged by the Home Science Extension Department, Otago University.
- 5.0 : Children's hour, conducted by "Ladybird" and "Uncle Frank."
- 6.0 : Dinner session:  
Overture—Basle Symphony Orchestra, "Der Freischutz" (Weber).
- 6.12: Tacet.
- 6.15: J. H. Squire's Celeste Octet, "The Grasshoppers' Dance" (Bucalossi), "The Butterfly" (Bendix).  
Musical Art Quartet, "To a Wild Rose" (McDowell).  
Violin—Yvonne Curti, "Madrigale" (Simonetti).
- 6.27: Tacet.
- 6.30: J. H. Squire's Celeste Octet, (a) "I Love the Moon" (Rubens), (b) "Two Eyes of Grey" (McGeoch), (c) "Amoureuse Valse" (Berger), (d) "Valse Bleue" (Margis).
- 6.42: Tacet.
- 6.45: J. H. Squire's Celeste Octet, "Valse Caprice" (Rubinstein).  
Cello solo—W. H. Squire, "Sarabande" (Seitzer).  
J. H. Squire's Celeste Octet, "Perpetuum Mobile" (Weber, arr. Cooke).
- 6.57: Tacet.
- 7.0 : News session.
- 7.30: Lecture—Mr. H. J. Geddes, "Ensilage in Canterbury."
- 8.0 : Chimes. Programme featuring "The English Countryside from Early Morn to Close of Day," provided by the Avon Glee Singers under direction of Miss Millicent Jennings. Pianiste, Miss Althea Slack; soprano, Miss Adele King; contralto, Mrs. Edmond McClelland; baritone, Mr. T. M. Chartres; light soprano, Miss Marjorie Watt; mezzo-sopranos, Miss Joan Grainger and Miss Mary Miles; mezzo-contralto, Miss Ada Anderson; tenor, Mr. Arthur Smith; baritone, Mr. Philip Wynne-Yorke.
- 8.8 : Overture—Vienna Philharmonic Orchestra, "Morning, Noon, and Night." Duet—Tenor and baritone, "At Early Dawn" (Ireland).  
Soprano—"Hark, Hark, the Lark" (Schubert).  
Double duet—Soprano and mezzo-soprano, "Sister, Awake" (Bridge).
- 8.13: Piano—"Country Gardens" (Grainger).  
Spoken verses, "Mrs. Willow" (Drinkwater).  
Contralto—"Three Cottage Garden Songs" (D'Hardelot): (a) "I Know a Lovely Garden," (b) "Weeds," (c) "Cabbage Roses."
- 8.19: Studio Octet (Conductor, Harold Beck)—Overture, "L'Impressario."
- 8.24: Spoken verses—"Anthony Crundle" (Drinkwater).  
Old round, "Look, Neighbours, Look" (Harrington).  
Baritone and chorus, (a) "There was a Jolly Miller" (traditional), (b) "A Hunting We Will Go" (traditional), (c) "Tally Ho" (tradtl.).
- 8.30: Studio Octet—"Scenes Pittoresques" (Massenet) (a) "March," (b) "Air de Ballet," (c) "Angelus."
- 8.42: Old rounds, (a) "Joan Glover," (b) "Come, Follow Me" (traditional).  
Light soprano—"Over the Meadow" (Carew).  
Pastoral—Soprano, mezzo-soprano, contralto, "The Shepherd" (Brian).  
Part-song, "Green Lanes of England" (Wassell).
- 8.50: Studio Octet—Suite, "Dramatic Music" (Purcell).
- 9.0 : Weather forecast and station notices.
- 9.2 : Descriptive—Orchestral, "John Peel" (arr. Flynn).
- 9.8 : Spoken verses, "Adlestrop" (Thomas).  
Trio—Tenor, baritone, and contralto, "Bird Songs at Eventide" (Coates).  
Spoken verses, "Echoes" (Moore).  
Soprano—"Down in the Forest" (Ronald).  
Double duet—Sopranos and mezzo-sopranos, "The Wild Brown Bee" (Bantock).
- 9.16: Cello—Harold Beck and Studio Octet, "Adagio" from "Concerto" (Tartini).
- 9.21: Baritone—"The Old Black Mare" (Squire).  
Old round, "My Love" (Anon.).

- Piano—(a) "Evening Whispers" (Palmgren), (b) "Shadow Dance" (Macdowell).  
 Old round, "Wind Gentle Evergreen" (Hayes).  
 9.29: New Symphony Orchestra, (a) "Shepherds Dance" (German), (b) "Morris Dance" (German), (c) "Torch Dance" (German).  
 9.37: Contralto—(a) "Country Folk," (b) "Hawthorn" (Brahe).  
 Spoken verses, "On Eastnor Knoll" (Masefield).  
 Duet—Tenor and baritone with chorus, "Wayfarer's Night Song" (Martin).  
 9.46: Duet—Baritone, mezzo, and chorus, "Sweet Nightingale" (traditional).  
 Part-song, "The Long Day Closes" (Sullivan).  
 9.51: Studio Octet—Selection, "Remembrances of Brahms" (Morena).  
 10.0: God save the King.

**4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, NOVEMBER 13.**  
**SILENT DAY.**

## Friday, November 14

**1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, NOVEMBER 14.**

- 8.0: Afternoon session—selected studio items, including Literary Selection by the Announcer.  
 5.0: Children's session, conducted by "Nod" and "Aunt Jean."  
 6.0: Dinner session.  
 Milan Symphony Orchestra, "Mignon" Overture, Parts 1 and 2.  
 H. G. Amers and the Eastbourne Municipal Band, "The Little Clock on the Mantel" (Wheeler).  
 Jean Lensen and His Orchestra, "Millions D'Arlequin" (Drigo).  
 6.14: Tacet.  
 6.15: Symphony Orchestra, "Hungarian March" (Berlioz).  
 Violin—Toscha Seidel, "Hebrew Melody" (Achron, arr. Zimbalist).  
 Jean Lensen and His Orchestra, "Si Mes Vers Avaient Des Ailes."  
 Bernardo Gallico and His Orchestra, "The Dance of the Dwarfs."  
 6.29: Tacet.  
 6.30: H. G. Amers and the Eastbourne Municipal Orchestra, "Silhouettes" (Arensky), (a) "Introduction"; (b) "La Coquette."  
 Bernardo Gallico and His Orchestra, "The Clock is Playing" (Blaauw).  
 H. G. Amers and the Eastbourne Municipal Band, "Dancing Doll" (Poupee Valsante) (Poldini); "Silhouettes—The Dreamer."  
 6.44: Tacet.  
 6.45: Zurich Tonhalle Orchestra, "Il Seraglio—Overture, Parts 1 and 2."  
 Violin—Toscha Seidel, "Ave Maria" (Schubert).  
 Symphony Orchestra, "Coppelia" Ballet—Entr'acte and Valse.  
 6.59: Tacet.  
 7.0: News and market reports.  
 7.40: Talk—Mr. F. R. Field, under auspices of F. R. Field Service Scientific Research Society, "Workings of the Sun and their Effect Upon the Earth—Part 1."  
 8.0: Chimes.  
 Studio Trio, "Drittes Trio, Op. 110" (Last Movement) (Schumann).  
 8.7: Baritone—Mr. John Bree, (a) "The Song of the Bell" (Oliver); (b) "How Deep the Slumber of the Floods" (arr. A.L.).  
 8.14: Clarinet—Mr. S. C. Lewis, (a) "Il Trovatore" Selection (Verdi); (b) "Hungarian Dance, No. 5" (Brahms).  
 8.22: Dialogue—Miss Maisie Carte-Lloyd and Mr. Alan McSkimming, "Mrs. Malaprop" (Brinsley Sheridan).  
 8.34: Studio Trio, "Finale from Trio, No. 2, Op. 66" (Mendelssohn).  
 8.39: Mezzo-soprano—Madame Mary Towsey, (a) "Supposin'" (Bemberg); (b) "Rosebuds" (Arditi).  
 8.46: Violin—Mr. J. Whitford Waugh, "Scene de Ballet" (de Beriot).  
 8.54: Dialogue—Miss Maisie Carte-Lloyd and Mr. Alan McSkimming, "They Never Quarrelled" (Harley).  
 8.59: Evening weather forecast and announcements.  
 9.1: Baritone—Mr. John Bree, "Green Grow the Rushes O" (Traditional).  
 9.5: Clarinet—Mr. S. C. Lewis, "Ma Normandie" (Lazarus).  
 9.10: Dialogue—Miss Maisie Carte-Lloyd and Mr. Alan McSkimming, "He Couldn't Stand It" (Harley).  
 9.14: Piano—Mr. Cyril Towsey, "The Harmonious Blacksmith" (Handel).  
 9.19: Mezzo-soprano—Madame Mary Towsey, "So We'll Go No More a Wooing."  
 9.23: Studio Trio, (a) "Melody in F" (Rubinstein); (b) "Liebesfreud" (Kreisler); (c) "Polonaise" (Glinka).  
 9.33: Lecture-recital—A Commentator, "Gramophone Lecture-recital—Latest Recordings."  
 10.3: God save the King.

**2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, NOVEMBER 14.**

- 8.0: Chimes—Selected studio items.  
 8.30 and 4.30: Sporting results to hand.  
 5.0: Children's session, conducted by Uncle Jim.  
 6.0: Dinner music session.  
 Dajos Bela Orchestra, "Pique Dame" Fantasia (Tschaikowsky).  
 Grand Symphony Orchestra, "Polonaise, No. 1 in A, Op. 40" (Chopin).  
 Dajos Bela Orchestra, "Dynamiden Waltz" (Josef Strauss).  
 6.14: Tacet.  
 6.15: Grand Symphony Orchestra, "Hungarian Dances, Nos. 5 and 6."  
 Edith Lorand Orchestra, "Myosotis Waltz" (Waldteufel).  
 Parlophone Dance Orchestra, "The Skaters" (Waldteufel).

- 6.29: Tacet.  
 6.30: Orchestra of the Opera Comique, Paris, "Ballet Egyptien, Parts 1-4."  
 Cello—Gregor Pittigorsky, "The Swan" (Saint-Saens).  
 6.44: Tacet.  
 6.45: Edith Lorand Orchestra, "The Merry Widow" Selection (Franz Lehar).  
 Grand Symphony Orchestra, "Scherzo from Midsummer Night's Dream" (Mendelssohn).  
 6.57: Tacet.  
 7.0: News session, market reports and sports results.  
 7.40: Lecturette—Mr. Colin Smith, "Radio Reception."  
 8.0: Chimes. A Special Programme of Excerpts from Comic Opera and Musical Comedy by the Wellington Operatic and Theatrical Society, assisted by the 2YA Orchestra. Note—Mr. W. A. Jameson, Hon. Secretary of the Wellington Operatic and Theatrical Society, will give a brief description of each item before its presentation.  
 Overture—2YA Orchestra (Conductor, Signor A. P. Truda), "On With the Dance" (Coward-Braham).  
 8.9: Chorus—Wellington Operatic and Theatrical Society (Conductor, Mr. J. F. Woodward), "Chorus of Welcome" (from "Floradora").  
 8.17: Baritone and chorus—Mr. Ray Kemp and the Company, "In the Shade of the Palm" (from "Floradora") (Stuart).  
 8.22: Selection—2YA Orchestra, "The Gondoliers" (Sullivan).  
 8.30: Contralto and chorus—Miss Pauline Shotlander and the Company, "The Toreador" (from "The Toreador") (Monckton).  
 8.34: Sextet—"Correct" (from "Our Miss Gibbs") (Caryll-Monckton).  
 8.39: Saxophone—Andy Sanella, (a) "Aileen" (Sanella); (b) "Jack and Jill" (Sanella).  
 8.45: Soprano—Mrs. J. F. Woodward, "Silver Star of Love" (from "Floradora") (Stuart).  
 8.49: Chorus—The Company, "So Long Letty" (Kern).  
 8.53: Selection—2YA Orchestra, "Stop Flirting" (Gershwin).  
 9.0: Weather report and station notices.  
 9.2: Selection—Band of H.M. Coldstream Guards, "Floradora" (Stuart).  
 9.10: Humour—Mr. Will McKeen, in ten minutes of humour from Musical Comedy, (a) "Doogan's Fancy Dress Ball" (from "Belle of New York") (Kerker); (b) "Country Cousins" (from "Our Miss Gibbs") (Caryll-Monckton); (c) "Our Farm" (from "Our Miss Gibbs") (Caryll-Monckton).  
 9.20: Double sextet, "Tell Me Pretty Maiden" (from "Floradora") (Stuart).  
 9.25: Selection—2YA Orchestra, "A Waltz Dream" (Strauss).  
 9.33: Chorus—The Company, "China Girl" (from "Belle of New York").  
 9.37: Soprano—Miss Joyce Woodward, "Mary—You Musn't Call Me Mary" (from "Our Miss Gibbs") (Caryll-Monckton).  
 9.41: Viola—Lionel Tertis, Serenade, "Hassan" (Delius).  
 9.45: Chorus—The Company, "Finale, Act 1, Belle of New York" (Kerker).  
 9.55: Dances—2YA Orchestra, "Dances" (from "The Rebel Maid").  
 10.3: God save the King.

**3YA, CHRISTCHURCH (980 KILOCYCLES)—FRIDAY, NOVEMBER 14.**

- 12.0: Noon—Results of New Zealand Metropolitan Trotting Club's meeting at Addington.  
 5.0: Children's hour, conducted by "Chuckie."  
 6.0: Dinner session.  
 Charles Ancliffe and His Orchestra, "Ancliffe Waltzes" Selection.  
 J. H. Squire's Celeste Octet, "Twilight on the Waters" (Squire).  
 Gil Dech Ensemble, "Italian Nights" (Roberts).  
 6.14: Tacet.  
 6.15: Regal Cinema Orchestra, "Sally" Selection (Burke, Kern).  
 Organ—Quentin Maclean, "Lily of Laguna" (Leslie Stuart).  
 J. H. Squire's Celeste Octet, "Minuet Sicilienne" (J. H. Squire and J. B. Hart).  
 6.28: Tacet.  
 6.30: Debroy Somers Band, "Mister Cinders" Selection (Ellis and Myers).  
 J. H. Squire's Celeste Octet, "The Piccanninnies Picnic" (Squire).  
 Organ—Quentin Maclean, "Little Dolly Daydream" (Leslie Stuart).  
 6.43: Tacet.  
 6.45: Albert W. Ketelbey's Concert Orchestra, "The Clock and the Dresden Figures" (Ketelbey).  
 J. H. Squire's Celeste Octet, "Minuet in D" (Mozart, arr. Willoughby).  
 Albert W. Ketelbey's Concert Orchestra, "Wedgwood Blue" (Ketelbey).  
 Orchestral—Gil Dech Ensemble, "Valse Parisienne."  
 6.58: Tacet.  
 7.0: News session.  
 8.0: Chimes. Popular and Dance Programme.  
 Overture—Band of H.M. Grenadier Guards, "Voyage in a Troopship."  
 8.8: Humour in song and story—Mr. Jock Lockhart, introducing "I've Got a Horse" (Waite).  
 8.14: Guitar—Andy Sanella, "Sliding on the Frets" (Sanella).  
 8.17: Light baritone—Mr. Arthur T. Couch, "The Desert Song" (Romberg).  
 8.21: Dance music—Bailey-Marston Dance Orchestra, (a) "The One Girl" (Youmans); (b) "Around the Corner" (Kahn).  
 8.27: Steel guitars and ukulele—Elaine Moody's Hawaiian Trio, (a) "Hawaiian Hula Medley" (arr. Moody); (b) "Sympathy" (arr. Moody); (c) "I See the Same Old Moon" (Friend) (with vocal refrains by Elaine Moody).  
 8.36: Novelty description—Raymond Newell, "The Trumpeter."  
 8.44: Sketch—The Mascots, "The Baggage" (Bertha Moore).  
 8.54: Dance music—Bailey-Marston Dance Orchestra, (a) "Madrid" (de Francesco); (b) "The Japanese" (Egan); (c) "Sandman" (Egan).  
 8.59: Weather forecast and station notices.  
 9.1: Waltz—International Concert Orchestra, "The Merry Widow" (Lehar).  
 9.5: Humour in song and story—Mr. Jock Lockhart, introducing, "It Will Only Make Me Love You More and More" (Weston and Lee).

- 9.11: Organ—Reginald Foort, (a) "Love Lies" (Kellard-Clifford); (b) "Just Like a Darby and Joan" (Gilbert-Leslie).  
 9.15: Light baritone—Mr. Arthur T. Couch, (a) "You in a Gondola" (Robt. Clarke); (b) "You've Got Your Mother's Eyes" (Drummond).  
 9.21: Dance music—Bailey-Marston Dance Orchestra, (a) "Wabash Blues" (Manken); (b) "12th Street Rag" (Bowman).  
 9.27: Sketch—The Mascot, "The Miracle" (Anon).  
 9.35: Steel guitars and ukulele—Elaine Moody's Hawaiian Trio, (a) "Somebody Likes You" (Ward Bryan); (b) "My Dorothy Waltz" (arr. Moody); (c) "Sweeping the Clouds Away" (Coslow).  
 9.44: Dance music—Bailey-Marston Dance Orchestra, (a) "That's a Plenty" (Low Pollock); (b) "Telling It to the Daisies" (Warren).  
 9.50: Duet—The Trix Sisters, "My Rock-a-Bye Baby" (Leslie and Nicholls).  
 9.53: Dance music—Bailey-Marston Dance Orchestra, (a) "Lady Luck" (Perkins); (b) "Leven-Thirty Saturday Night" (Burtnett).  
 9.59: Duet—The Trix Sisters, "I'm Crazy Over You" (Sherman-Lewis).  
 10.5 : Dance music until 11 p.m.  
 God save the King.

#### 4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, NOVEMBER 14.

- 3.0 : Chimes. Selected gramophone items.  
 4.25: Sporting results.  
 5.0 : Chimes. Children's hour, conducted by Aunt Sheila.  
 6.0 : Dinner music.  
 Mengelberg's Concertgebouw Orchestra, "Oberon Overture" Parts 1, 2, and 3 (Weber).  
 Squire's Chamber Orchestra, "L'Arlesienne Suite" Intermezzo (Bizet).  
 6.13: Tacet.  
 6.15: Menorah Symphony Orchestra, "Shulamith" Selection (Goldfaden).  
 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: New Queen's Hall Orchestra, "Slavonic Dance in G Minor" (Dvorak).  
 B.B.C. Wireless Band, "Helston Furry Processional" (arr. C. Sharp).  
 Classic Symphony Orchestra, "Classical Memories" (arr. M. Ewing).  
 6.44: Tacet.  
 6.45: Squire's Celeste Octet, "Ave Maria" (Bach).  
 Poltronieri String Quartet, "Quartet in E-Andante, Cantabile, and Canzonetta" (Haydn).  
 Squire's Celeste Octet, "On Wings of Song" (Mendelssohn).  
 6.58: Tacet.  
 7.0 : News session.  
 8.0 : Special "Mozart" Evening.  
 Berlin State Orchestra, "German Dances" (Mozart).  
 8.9 : Duet—Miss Mae Matheson and Mr. H. A. Johnston, "La C Dareiu."  
 8.13: Lecture—Mr. Max Scherek, President Otago Society Musicians, "Mozart."  
 8.25: Instrumental—Mr. Max Scherek and String Quintet, "Concerto in E Flat, 1st Movement" (Mozart).  
 8.34: Baritone—Mr. S. Falconer, "Within These Sacred Bowers" (Mozart).  
 8.39: State Opera Orchestra, "Magic Flute" (Mozart).  
 8.45: Quartet—The Harmonists, "Sanctus" from "12th Mass" (Mozart).  
 8.49: Violin—Mr. J. A. Wallace, "Sonata in A" (Mozart).  
 8.55: Contralto—Miss M. S. Green, "Cradle Song" (Mozart).  
 9.0 : Weather report and station announcements.  
 9.2 : Venetian Players, "Allegro and Romanza" from "Eine Kleine Nachtmusik" (Mozart).  
 9.8 : Solo and chorus—The Harmonists, "Praise the Lord, Ye Nations All."  
 9.14: Piano and string quartet—Mr. Max Scherek and Quintet, "Concerto in E Flat and 3rd Movement" (Mozart).  
 9.31: Tenor—Mr. H. A. Johnston, "Dalla Sua Pace" (Mozart).  
 9.35: Harp—Wanda Landowska, "Turkish March" (Mozart).  
 9.39: Duet—Miss Mae Matheson and Miss M. S. Green, "Gentle Zephyr" (from "Don Giovanni") (Mozart).  
 9.43: Instrumental—Mr. Max Scherek and String Quintet, "Jupiter Symphony" 2nd and 3rd Movements (Mozart).  
 9.51: Soprano—Miss Mae Matheson, Aria, "Batti Batti" (Mozart).  
 9.56: Selection—Bournemouth Municipal Orchestra, "Don Giovanni."  
 10.4 : God save the King.

- Dajos Bela Orchestra, "The Court Ball" (Joseph Lanner).  
 Grand Symphony Orchestra, "Japanese Lantern Dance" (Yoshitome).  
 6.44: Tacet.  
 6.45: Grand Symphony Orchestra, "Suite Orientale," Part 3, The Dancers.  
 Dajos Bela Orchestra, "Viennese Waltz Potpourri" (Robrecht).  
 Grand Symphony Orchestra, "Chinese Street Serenade."  
 6.59: Tacet.  
 7.0 : News and market reports.  
 7.40: Talk—Mr. G. D. Rutter, "Gladioli."  
 8.0 : Chimes. Selection—String Octet, under direction of Mr. J. Whitford Waugh, "Sally" (Kern).  
 8.14: Contralto—Mrs. Daisy Basham, (a) "Summer is Here" (Russian Gipsy Melody) (Traditional), (b) "The Nightingale" (Alabiéff).  
 8.21: Novelty—Regal Pantomime Company, "Dick Whittington" (Arthurs).  
 8.33: Hawaiian—Barry Ingall's Hawaiian Quartet, (a) "Song of Hawaii" (Corbett), (b) "Isle of Paradise" (Corbett).  
 8.40: Comedy sketch—Ernest and Wendy Luks, "Honeymoon Harmonies."  
 9.0 : Evening weather forecast and announcements.  
 9.2 : String Octet, (a) "Pizzicato Polka" (Strauss), (b) "Serenade D'Amour."  
 9.8 : Vocal duet—Mrs. Daisy Basham and Mr. Arthur Briggs, "The Mill-wheel" (Old German Air).  
 9.12: Hawaiian—Barry Ingall's Hawaiian Quartet, (a) "Aloha Sunset Land" (Kaweno), (b) "Southern Seas Lament" (arrgd. Ingall).  
 9.19: String Octet, (a) "Web of Love" (Cowan and Titsworth), (b) "Bachanal" (from "The Seasons") (Glazounov), (c) "Jazz Reel."  
 9.29: Baritone—Mr. Arthur Briggs, (a) "Go to Sea" (Trotter), (b) "You Are My Darling" (Russian Gipsy Melody).  
 9.36: Barry Ingall's Hawaiian Quartet, (a) "Springtime in the Rockies" (Woolsey), (b) "Static March" (Ingall).  
 9.42: String quartet—Miss Lalla Hemus and Messrs. J. Whitford Waugh, Haydn Murray and Collin Munroe, "Old Black Joe."  
 9.47: Vocal duet—Mrs. Daisy Basham and Mr. Arthur Briggs, (a) "The Wasted Serenade" (Brahms), (b) "Santa Lucia."  
 9.51: Selection—String Octet, "Bits and Pieces" (Baynes).  
 10.2 : Programme of dance music from the studio.  
 Foxtrots—Nat Shilkret and His Orchestra, "Nobody But You."  
 Jack Hylton and His Orchestra, "Orange Blossom Time."  
 Nat Shilkret and His Orchestra, "Your Mother and Mine."  
 Waltz—Leo Reisman and His Orchestra, "Dance Away the Night."  
 10.12: Foxtrots—The Rounders, Jack Hylton and His Orchestra, "Singin' in the Rain" (Freed-Brown).  
 The High Hatters, "Low Down Rhythm" (Klages-Greer).  
 Waring's Pennsylvanians, "Navy Blues" (Turk-Ahlert).  
 Humour—Norman Long, "Is it British?" (K. and G. Weston).  
 10.24: Foxtrots—Henry Busse and His Orchestra, "Since I Found You."  
 George Olsen and His Music, "South Sea Rose."  
 Charles Dornberger and Orchestra, "May-be, Who Knows?"  
 Leo Reisman and His Orchestra, "Doing the Boom Boom."  
 10.36: Waltz—Henry Bosse and His Orchestra, "Like a Breath of Spring Time" (Dubin-Burke).  
 Vocal—Norman Long, "I Think of You" (K. and G. Weston).  
 10.42: Foxtrots—Victor Arden, Phil Ohman and Their Orchestra, "Love, Your Spell is Everywhere" (Janis-Goulding).  
 Nat Shilkret and His Orchestra, "You Made Me Love You, Why Did You?" (Lombardo-Kippel).  
 Leo Reisman and His Orchestra, "Look What You've Done to Me" (Conrad-Mitchell-Gottler).  
 10.51: Waltz—Ben Pollock and His Park Central Orchestra, "You're Always in My Arms" (McCarthy-Tierney).  
 Foxtrots—"Sweetheart, We Need Each Other" (McCarthy-Tierney).  
 Charles Dornberger and Orchestra, "I Want to Meander in the Meadow" (Wood-Tobias).  
 11.0 : God save the King.

#### 2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, NOVEMBER 15.

- 3.0 : Chimes. Selected studio items.  
 3.50 and 4.30: Sporting results to hand.  
 5.0 : Children's session, conducted by Uncle Toby.  
 Dinner music session.  
 March—H.M. Grenadier Guards, "Martial Moments" (arr. Winter).  
 Waltz—Eddie Thomas' Collegians, "Missouri Waltz" (Logan).  
 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."  
 Piano—Percy Grainger, "Molly on the Shore" (Grainger).  
 6.26: Tacet.  
 6.30: Waltz—Eddie Thomas' Collegians, "Till We Meet Again" (Whiting).  
 "Beautiful Ohio" (Earl).  
 Piccolo duet—Jean and Pierre Gennin, "Rippling Streams" (Gennin).  
 6.31: Tacet.  
 6.45: Violin and organ—Marrnello, "Once" (Saunders).  
 Xylophone—W. W. Bennett, "Gee Whiz" (Byron).  
 Hawaiian—South Sea Islanders, "Lei Lani" (Heagney).  
 Denza Dance Band, "In the Shadows" (Finck).  
 6.58: Tacet.  
 7.0 : News session, market reports and sports results.  
 8.0 : Chimes.

## Saturday, November 15

#### 1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, NOVEMBER 15.

- 3.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.  
 5.0 : Children's session, conducted by "Cinderella."  
 6.0 : Dinner session.  
 Grand Symphony Orchestra, "Suite Orientale" (a) "March," (b) "On the Shore of the Ganges" (Francis Popy).  
 Edith Lorand Orchestra, "Toreador and Andalous" (Rubinstein).  
 Grand Symphony Orchestra, "Naila" (Delibes).  
 6.14: Tacet.  
 6.15: Dajos Bela Orchestra, "Woodland Peace" (Favilla).  
 Berlin State Opera House Orchestra, "The Barber of Seville" Overture.  
 Edith Lorand's Orchestra, "Minuet" (Boccherini).  
 6.29: Tacet.  
 6.30: Grand Symphony Orchestra, "Suite Orientale," Part 4, The Patrol (Francis Popy); "Lutspiel" Overture" (Kela Bela).

- Overture—Salon Orchestra (Conductor Mr. M. T. Dixon) "By the Blue Hawaiian Waters" (Ketelhey).**
- 8.9 : Soprano—Mrs. Amy Dunn, "Dashing Away With the Smoothing Iron."
- 8.13: Hawaiian Instrumental—Golden Hula Quintet, (a) "Hawaiian Mother's Lullaby" (Gerber); (b) "Sunny Manoa" (Hopkins).
- 8.19: Mr. Eric Harrison, "Queen of my Heart" (from "Dorothy") (Cellier).
- 8.23: Novelty Instrumental—Salon Orchestra, "The Voice of the Bells."
- 8.31: Humour—Mr. Will Yates, "Radio Good Nights" (original).
- 8.37: Tenor—Mr. Stewart Nelson, "Midst the Petals in Your Tresses" (from "Pagoda of Flowers") (Woodforde-Finden).
- 8.41: Saxophone—Rudy Wiedoeft, "Sax-o-Phun" (Wiedoeft).
- 8.44: Popular songs—Mr. Billy Hart, (a) "A Cottage For Sale" (Robison); (b) "I'm Following You" (Dreyer); (c) "Dancing with Tears in My Eyes" (Dubin).
- 8.54: Selection—Salon Orchestra, "Request Item."
- 9.0 : Weather report and station notices.
- 9.2 : Soprano—Mrs. Amy Dunn, "One Man Shall Mow My Meadow" (arr. Sharp); (b) "The Sheep Shearing" (arr. Sharp).
- 9.6 : Novelty—The Mississippi Minstrels, "An Old Time Minstrel Show."
- 9.22: Baritone—Mr. Eric Harrison, "My Dreams" (Tosti), "I Hear a Thrush at Eve" (Cadman).
- 9.26: Selection—Salon Orchestra, "Katinka" (Friml).
- 9.34: Humour—Mr. Will Yates, "A Musical Interlude" (K. R. G. Browne).
- 9.40: Hawaiian Instrumental—Golden Hula Quintet, (a) "Wailana Waltz" (arr. Smith); (b) "Moanalua" (arr. Nape).
- 9.46: Tenor—Mr. Stewart Nelson, (a) "Love's Own Kiss" (from "High Jinks") (Hauerbach-Friml), (b) "Out of the Mist" (Sanderson).
- 9.53: Dance Numbers—Salon Orchestra, "Latest Dance Novelties."
- 10.3 : Dance programme.
- Foxtrots—Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, "When the Little Red Roses Get the Blues For You" (Dubin-Burke); "Puttin' on the Ritz" (Berlin); "Leven Thirty Saturday Night."
- Waltz—Regent Club Orchestra, "It Happened in Monterey."
- 10.15: Foxtrots—Ben Bernie and His Orchestra, "To My Mammy" (Berlin). Slatz Randall and His Orchestra, "What a Perfect Night for Love" (Lenzen, Cameron, Bontsema).
- 10.21: Vocal—Chester Gaylord, "Any Time's the Time to Fall in Love."
- Foxtrots—Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, Meyer Davis' Astor Orchestra, "Oh! How I Adore You." Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, "Song of the Dawn" (Yellen, Ager).
- Roger Wolfe Kahn and His Orchestra, "Dark Night."
- Waltz—Meyer Davis' Hotel Astor Orchestra, "Farewell."
- 10.36: Foxtrots—Ben Bernie and His Orchestra, "Looking at You" (Berlin). Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, "There's Danger in Your Eyes, Cherie." Slatz Randall and His Orchestra, "Sweetheart Trail."
- 10.55: Vocal—Chester Gaylord, "Blue is the Night" (Fisher).
- Waltz—Colonial Club Orchestra, "Why Don't You Love Me" (Mason).
- Foxtrots—Roger Wolfe Kahn and His Orchestra, "Into My Heart." Louis Panico and His Orchestra, "Wabash Blues." Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, "With You" (Berlin).
- 11.0 : Sporting summary.
- 11.10: God save the King.
- 3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, NOVEMBER 15.**
- 12 noon: Results of Canterbury Jockey Club's meeting (final day) at Riccarton.
- 5.0 : Children's hour, "Aunt Pat," "Sunny Jim," and "Jack Frost."
- 6.0 : Dinner session.
- Boston Symphony Orchestra, "Frühlingsstimmen" (Johann Strauss).
- Organ—Jesse Crawford, "Serenade" (Romberg).
- Band—National Military Band, "Ben Hur" (Byng).
- 6.13: Tacet.
- 6.15: Orchestral—Vienna Philharmonic, "Dorfschwalben" (Strauss). International Quartet, "Teddy Bears' Picnic" (Bratton). Jack Hylton and His Orchestra, "Steppin' Out" (Vauchant).
- 6.28: Tacet.
- 6.30: New Mayfair Orchestra, "Wake Up and Dream" (Porter). Organ—Jesse Crawford, "Indian Love Call" (Friml). International Novelty Orchestra, "To Die Dreaming," "Four Little Farms."
- 6.43: Tacet.
- 6.45: Jack Hylton and His Orchestra, "Old-Time Songs." International Quartet, "The skaters" (Waldteufel). Jack Hylton and His Orchestra, "Lonesome Little Doll."
- 6.58: Tacet.
- 7.0 : News session.
- 7.30: Sports results.
- 8.0 : Chimes. Vaudeville programme by The Radio Rascals, followed by dance programme:
- Overture—Band of H.M. Coldstream Guards, "Selection of Leslie Stuart's Songs" (Hume).
- 8.8 : Opening chorus—Company, "A Happy Family," from "Kissing Time" (Ivan Caryll).
- Sketch—Company, "Horses." Song, "Duna" (McGill).
- 8.10: Two Rascals, "Five Minutes of Song and Nonsense."
- 8.15: Accordion—P. Frosini, "Silver Moon" (Frosini).
- 8.18: Song and chorus—Company, "Kalua," from "Cabaret Girl" (Kern). Sketch—Company, "Hats."
- 8.28: Baritone—"Five and Twenty Sailormen" (Coleridge-Taylor).
- 8.31: Court Symphony Orchestra, "Gondoliers" Selection (Sullivan).
- 8.39: Recitation, "A Rift Within the Lute" (Wilcock).
- 8.44: Vocal duet, "Joan and Peter," from "Kissing Time" (Caryll).
- 8.49: Musical sketch, "Mademoiselle" (arr. Hegan).
- 9.1 : Weather forecast and station notices.
- 9.3 : Band of H.M. Grenadier Guards, "The Smithy in the Woods."
- 9.6 : Opening chorus—Company, "Back Again." Duet, "Gravins and Gripps," from "Cabaret Girl" (Kern). Contralto, "Yonder" (Olliver).
- 9.15: Banjo—Ernest Jones, "Mississippi Bubble" (Haines).
- 9.18: Sketch, "The Eternal Triangle" (Hegan).
- 9.23: Songs, "Thousands of Years Ago" (from "Cabaret Girl"—Kern). "Desertians" (from "Kissing Time"—Ivan Caryll).
- 9.26: Baritone, "Cloze Props" (Charles).
- 9.29: Guitar—Royal Serbian Tamburitza Orchestra, "Ne Kalythe Valcas."
- 9.32: Sketch, "Before and After" (Hegan).
- 9.38: Male quartet, "Nell McRae" (arr. Hegan). Popular number, "Thinking of You" (Herbert).
- 9.48: Finale, "Songs of Yesterday" (own arrangement, Hegan).
- 10.3 : March—Band of H.M. Grenadier Guards, "Radio Quick March." Dance music until 11 p.m.:
- Foxtrots—Alfredo and His Band, "Now I'm in Love" (Shapiro, Yellen), "Singin' in the Bathtub" (Magidson, Washington, Cleary), "Am I Blue?" (Akst, Clarke).
- Waltz—Harry Hudson's Melody Men, "Sleepy Valley."
- 10.12: Foxtrots—Alfredo and His Band, "My Love Parade" (Grey, Schertzinger); "Smiling Irish Eyes" (Ruby, Perkins).
- Tango—Marcu and His Orchestra, "Do You Still Love Me?"
- 10.24: Vocal—G. H. Elliott, "Plain Chocolate" (Lutzen). One-step—Harry Hudson's Melody Men, "Tell Me, Mother" (Yvain). Foxtrots—Harry Hudson's Melody Men, "Happy Days are Here Again" (Yellen, Ager); "O, Ya, Ya!"
- Waltz—Harry Hudson's Melody Men, "Marie" (Berlin).
- 10.36: Foxtrots—The Plaza Band, "Cute Little Flat." Harry Hudson's Melody Men, "Lucky Me, Lovable You." Vocal—G. H. Elliott, "Sentimental Luke" (Lutzen).
- 10.45: Tango—Motoi and His Orchestra, "In the Twilight." Foxtrots—Harry Hudson's Melody Men, "Mickey Mouse"; "Building a Nest for Mary" (Rose, Greer); "Cuckoo in the Clock" (Collins). Waltz—Alfredo and His Band, "Let Me Have My Dreams."
- 11.0 : God save the King.
- 4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, NOVEMBER 15.**
- 3.0 : Chimes. Selected gramophone items.
- 4.25: Sporting results.
- 5.0 : Chimes. Children's hour, conducted by "Uncle Sambo."
- 6.0 : Dinner music:
- Grand Symphony Orchestra, "Zampa" (Herold).
- Waltz—Dajos Bela Orchestra, "Morgenblatter" (Strauss).
- 6.12: Tacet.
- 6.15: Orchestra of the Opera Comique, Paris, "Scenes Pittoresques." Waltz—Edith Lorand Orchestra, "Vienna Waltz" (Drda).
- 6.27: Tacet.
- 6.30: Waltz—Dajos Bela Orchestra, "Marien Klange" (Strauss). Dajos Bela Orchestra, "Ideale" (Tosti). Waltz—Edith Lorand Orchestra, "Merry Vienna" (Zishrer).
- 6.42: Tacet.
- 6.45: Edith Lorand's Orchestra, "Song of Autumn" (Waldteufel). Queenie and David Kall, "Hawaiian March" (Ellis). Valse intermezzo—Edith Lorand's Orchestra, "The Flowers' Dream." Selection—H.M. Irish Guards, "The Desert Song" (Romberg).
- 6.57: Tacet.
- 7.0 : News session.
- 8.0 : Relay from 3YA, Christchurch, of vaudeville programme.
- 10.0 : Dance session:
- Foxtrots—Hal Swain's Cafe Royal Band, "Dance of the Paper Dolls." Ted Wallace and His Campus Boys, "Jericho" (Meyers). Hal Swain's Cafe Royal Band, "Petticoat Lane."
- Waltz—The Columbians, "Christina" (Gottler, Mitchell, and Conrad).
- 10.12: Foxtrots—Will Prior and His Stage Band, "Old-Fashioned Rose." Stellar Dance Band, "Sweetheart of All My Dreams."
- Vocal duet—Ford and Glenn, "Tin Pap Parade" (Gillespie-Whiting).
- 10.21: Foxtrots—Jan Ralfini and His Band, "Deep Night." Stellar Dance Band, "Honey" (Simons, Gillespie, Whiting). Jan Ralfini and His Band, "Fashionette" (Glogau and King). The Harmonians, "Little Pal" (De Sylva, Brown, Henderson).
- 10.33: Waltzes—Rudy Vallee and His Connecticut Yankees, "By-and-By, Sweetheart" (Valentine, Ford, and Yellen). Bar Harbour Society Orchestra, "Celia" (Whiting-Robin). Foxtrots—Rudy Vallee and His Connecticut Yankees, "Caressing You." Will Prior and His Stage Band, "I Faw Down an' Go Boom."
- 10.45: Vocal duet—Billy Jones and Ernest Hare, "Spring is Here." Foxtrots—Paul Specht and His Orchestra, "The Things That Were Made for Love" (Tobias and de Rose).



Ted Wallace and His Campus Boys, "I've Got a Feeling I'm Failing" (Link, Waller, and Rose).

Ipana Troubadours, "Old-Fashioned Lady."

Waltz—The Columbians, "Pagan Love Song" (Brown and Freed).

11.0 : God save the King.

## Sunday, November 16

### 1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, NOVEMBER 16.

8.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.

6.0 : Children's song service, conducted by "Uncle Bert."

6.55 (approx.) : Relay Divine Service of Auckland Methodist Central Mission (Preacher, Rev. C. G. Scrimgeour; Song Leader, Mr. T. T. Garland).

8.30 (approx.) : London Symphony Orchestra, "Chanson de Matin" (Elgar). Mezzo-contralto—Miss Audrey McDonagh, (a) "Blue Bells" (Phillips),

(b) "Windy Nights" (Lubbock).

Studio Trio, "Zweites Trio, Op. 80" (First movement) (Schumann).

Baritone—Mr. Len Barnes, "Fifinella" (Tschaiakowsky).

Studio Trio, "Largo" (Handel).

Choral—Utica Jubilee Singers, (a) "Angels Watching Over Me," (b) "Climbin' Up the Mountain."

Piano—Mr. Eric F. B. Waters, "Rustling Woods" (Liszt).

Mezzo-contralto—Miss Audrey McDonagh, "Beloved, it is Morn."

Studio Trio, "Fourth Movement, Zweites Trio" (Schumann).

Baritone—Mr. Len Barnes, (a) "The Three Roads" (Koenemann), (b) "When the King Went Forth to War" (Koenemann).

Violin—Mr. J. Whitford Waugh, "Mazur" (Mlynarski).

London Symphony Orchestra, "Chanson de Nuit" (Elgar).

9.30: God save the King.

### 2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, NOVEMBER 16.

3.0 : Afternoon session of selected gramophone items.

6.0 : Children's Song Service, conducted by Uncle George and assisted by Khandallah Presbyterian Sunday School Choir.

7.0 : Relay of Evening Service from St. Andrew's Presbyterian Church. Preacher: Rev. R. J. Howie, B.A. Organist and Choirmaster: Mr. Frank Thomas.

8.15: (Approx.)—Studio Concert by the Wellington Municipal Tramways Band (Conductor, Mr. E. Franklin), and 2YA Artists.

Overture—Band, "The Magic Flute" (Mozart).

Mezzo-soprano—Miss Ailsa Dillon, "Sing Little Bird of the Dawn."

Cello—Pablo Casals, "Melody in E Flat" (Tschaiakowsky).

Bass-baritone—Mr. George Neel, "Though Faithless Men" (Halery).

Selection—Band, "Un Ballo Maschera" (Verdi).

Contralto—Miss Dorothy Spiller, "Litany" (Schubert).

Piano—Mr. Norman C. Izett, "Waltz in E Major" (Moszkowski).

Waltz—Band, "Senta" (Rimmer).

Weather report and station notices.

Mezzo-soprano—Miss Ailsa Dillon, (a) "Gossiping" (Dodge); (b) "The False Prophet" (Scott).

March—Band, "The Burning of Rome" (Ball).

Bass-baritone—Mr. George Neel, (a) "The Snowy Breasted Pearl" (Robinson); (b) "The Vagabond" (Ireland).

Waltz—Band, "Love's Dream After the Ball" (Morelli).

Contralto—Miss Dorothy Spiller, "Verdant Meadows" (Handel).

J. H. Squire's Celeste Octet, "Memories of Mendelssohn" (arr. Sear).

Patrol—Band, "Jamie's Patrol" (Dacre).

March—Band, "The Gladiator's Farewell" (Blankenbury).

God save the King.

### 3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, NOVEMBER 16.

3.0 : Afternoon session—Gramophone recital.

5.30 : Children's Song Service by Children of Anglican Sunday Schools.

6.15 : Studio chimes.

7.0 : Relay of Evening Service from St. Mary's Anglican Church, Merivale. Preacher: Ven. Archdeacon P. B. Haggitt. Organist and Choirmaster: Mr. Alfred Worsley.

8.15: (Approx.)—Relay through 4YA, of concert by Waimate Silver Band, under the conductorship of Mr. H. F. Vincent.

God save the King.

### 4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, NOVEMBER 16.

3.0 : Chimes. Selected gramophone items.

5.30 : Children's Song Service, conducted by Big Brother Bill.

6.30 : Relay of Evening Church Service from Baptist Church, Hanover Street. Preacher: Rev. E. S. Tuckwell, B.A. Choirmaster: Mr. H. P. Desmoulins.

7.45 : Vienna Philharmonic Orchestra, "Morning, Noon and Night" (Suppe). Piano—Harold Bauer, "Etude in E Flat" (Liszt); "In the Night."

Choir—Don Cossacks Choir, "Three Folk Songs" (Dobrowen); "How Greatly the Lord is Glorified" (Bortnjansky).

Instrumental trio—De Groot, Bor and Calve, "El Religario"; Selection of Hebrew Melodies (Padilla, arr. Saunders).

8.15: Relay of Concert by Waimate Silver Band, under conductorship of Mr. H. F. Vincent, from Olympia Hall, Waimate. At the piano: Miss Gay Reeve.

Hymn—Band, "Be by My Side" (Rimmer).

March—Band, "Torchlight" (May).

Solo—Mrs. R. Templeton, "My Ships" (Barrett).

Selection—Band, "Carmen" (Bizet).

Violin—Mr. J. Hill, "Souvenir" (Drdla).

Humoresque—Band, "Slidin' Thru' the Rye" (Freeman).

Solo—Mr. A. Spiers, "Thanks Be to God" (Dickson).

Waltz—Band, "Desdemona" (Carter).

Intermezzo—Band (vocal effect Mr. J. Hill), "In a Monastery Garden."

Recital—Miss A. Meredith, "Little Tan Shoes" (Sullivan).

Cornet—Mr. H. Vincent, "Debutante" (Clarke).

Phantasy—Band, "In a Chinese Temple Garden" (Ketelbey).

March—Band, "Call of the East" (Thomas).

9.30: God save the King.

## Children's Sessions Broadcast of Records

### FROM 1YA.

TUESDAY, NOVEMBER 11.—All will welcome once again the Edendale School children, who gave us such a bright and enjoyable programme last August. There will be stories from Uncle Dave and a few minutes' talk and advice about suitable books for children to read.

WEDNESDAY.—Uncle Tom will entertain and our remarkably clever little cousin, Wyn, at the piano.

THURSDAY.—The junior members of the Jubilee Institute for the Blind will entertain the Radio family with choruses, piano solos, and duets. Peter Pan telling stories and sending birthday greetings.

FRIDAY.—"Here we are again" with Nod and Aunt Jean in charge, and cousin Jean singing.

SATURDAY.—Saturday brings Cinderella with stories and jokes, Radio postman going his rounds, and cousins reciting and playing the piano.

SUNDAY.—Children's Song Service, conducted by Uncle Bert, assisted by Beresford Street Sunday School.

### FROM 2YA.

MONDAY, NOVEMBER 10.—Uncle Jeff with puzzle and riddles will be here to-night, and the "Kipling Lady" will tell another "Just So" story. Pupils from St. Catherine's Convent, Kilbirnie, will be our youthful entertainers, with choruses.

TUESDAY.—Uncle Toby and the Milly Molly Mandy Lady will be in the studio to-night, and three little girls from Agnes Wright's studio will also perform.

THURSDAY.—Big Brother Jack and Uncle George have a special programme to-night. There will be stories and fun. The pupils of Miss Rose Carte are acting a scene from "Alice in Wonderland."

FRIDAY.—"Jumbo" with his bright and breezy stories to-night; also, "Story Book Lady," the "Maori Legend Man," and our children's Rhythmic Band. Violoncello items will be given under the direction of Miss Gertrude Johnston.

SATURDAY.—To-night we are to have a little play called "Aladdin's Lamp." Will you come with Uncle Jasper and Aunt Molly, not forgetting Spot, and all the little ones in the studio, to Nursery Land to-night?

SUNDAY.—The children's choir from the Khandallah Presbyterian Sunday School under the leadership of Mr. Service, will assist Uncle George to-night.

(Continued from page 3.)

class station, are now well in hand. This station will have a power of 500 watts in the aerial and will work on a wavelength of 268.9 metres.

The studio, aerial system and transmitter will be situated on the new premises of H. Nimmo and Sons, Ltd., Willis Street. Work on those premises is now starting in order that the station may be opened officially at the beginning of December. The station will be conducted under the auspices of the combined radio traders of Wellington.

It is hoped to provide an all-day service of programmes. These will consist partly of gramophone records controlled and provided by the firm on whose premises the station will be erected, and partly of original programmes from outside sources.

Radio dealers state that the new station will now make it possible for them to demonstrate their receivers at all hours of the day, including the mornings.

The power of the station is great enough for it to be heard up to twenty or thirty miles from the city on quite unambitious valve sets, and it should have a crystal range of at least five or six miles.

## Band Concerts

THE broadcasting of concerts by the Auckland Municipal Band is to be continued by 1YA until further notice, pending a decision by the City Council upon a general policy in regard to municipal music. At the council meeting on October 30 it was reported that the Parks Committee had received a letter from the Radio Broadcasting Company advising that the council's arrangements for the broadcasting of municipal band concerts expired during October, and stating that presumably, with the continuance of the band concerts, the arrangements which had been in force during the last twelve months would continue. It was decided by the council to continue the present arrangements until a report on its general policy in regard to municipal music had been received from the Finance Committee which was considering the whole matter.

"Radio Record and Electric Home Journal."

12/6 in Advance; 15/- Booked.  
BOX 1032, WELLINGTON.

The application of electrical impulses—whether due to the excitation of currents in the aerial or by electrical waves, or to any other cause—to the third electrode or grid causes a variation of the electron stream passing from filament to receiving plate or anode, and consequently delivered by the valve, which may exceed a thousand times or more the power which controls it. And this magnification or amplification can as easily be repeated by using the output of the first valve to control a second.

With this development radio was given a tremendous impetus and a steady beam or continuous wave could now be sent. This offered possibilities for voice transmission, and as early as 1909 a set, constructed under Fleming's patents, was used to broadcast music. The success of these early broadcasts led Dr. de Forest into further researches. He erected a broadcasting station in New York, and from there a few selections from "Carmen" over the real pioneer broadcasting station of the word were sent. Shortly afterward Caruso's voice was picked up directly from the stage of the Metropolitan Opera House in New York and broadcast, but regular broadcasts were a long way off.

The first outstanding success in radio broadcasting was obtained between Rome and Tripoli, a distance of 600 miles, in 1912, but long-range telephone

tests became a dead letter in Europe as soon as war broke out in 1914, when attention was centred upon radio telegraphy mainly from aeroplanes to earth.

The Americans, not harrassed by war troubles during the earlier periods, succeeded, on October 23, 1915, in transmitting speech to the Eiffel Tower station in Paris. In 1923 more tests were made across the Atlantic, and on February 27, 1926, two-way conversation was held for the first time between England and the United States. Exactly seven months later the trans-Atlantic wireless telephone service was opened to the public. It is interesting to note that this was 20 years from the time that Fessenden's voice in America was heard in Scotland.

#### Regular Broadcasting.

BY this time entertainment was being broadcast regularly. The American station KDKA was opened in 1921, but prior to this, and this is important, the Dutch had been broadcasting concerts regularly, and a time-table of them appeared in a British journal in June, 1920. Broadcasting in England started in the spring of 1922 with

20,000 licensed listeners. Now there are about 3,000,000. The public, who had killed Hugh's ideas, disregarded Marconi, looked on Fleming's and De Forest's inventions as suspicious, and who had generally retarded the progress of radio, had realised its value and radio advanced. More scientists, experimenters, and amateurs have been attracted to radio in recent years than to any other science. This no doubt, coupled with its endless possibilities, made rapid progress inevitable.

In the early 20's of this century, most of the broadcasts were taking place on a waveband higher than 1000 metres, and everything below 200 was left for the amateurs to "play round with," as it was considered they could do no harm if kept well down, but the amateur has shown that they can be used, and, furthermore, that they are more successful than the longer waves.

He has changed the whole character of broadcasts, and when driven from the 200 metre band, has been doing excellent work on the lower waveband, and it is due to him that commercial shortwave broadcasting as we know it, is now established.

The broadcast listener to-night owes a debt to the amateur, and everything that can be done to help these enthusiastic members of the community will ultimately help the science of radio. No doubt before long they will show us a way to utilise the ultra short-wave commercially.

When the valve was improved and found its way into broadcasting stations and receivers the development of wireless moved rapidly. Broadcasting proper had commenced. Armstrong had developed his famous regeneration circuit, Hazledean now patented a system of neutralised radio frequency stages, and other developments took place until the receivers which were used when broadcasting was first introduced into New Zealand were developed. During these last three or four years remarkable developments have taken place. The screen grid valve has made radio frequency amplification so stable that signals can be built up as strongly as atmospheric noises will allow, while pushpull and directly-coupled circuits, and moving-coil loudspeakers have brought reproduction nearly perfect. The mains set has made radio simple and reliable.

And so we bring our talk about the romance of radio to the present day.

## Edison Scholarship

### Trying Character Test

MR. EDISON true to his role as a master-inventor, has put quite unusual punch into this year's series of posers to determine the recipient of his scientific scholarship. Ordeal by examination assumes a new terror when, in addition to having to answer highly-technical questions, callow youths are requested to look back on their lives from their deathbeds and to state by what facts they will then determine whether they succeeded or failed.

Mr. Edison apparently believes in testing his candidates' moral standards as well as their practical knowledge. We confess, says an exchange, that another of his questions intrigues us.

"If, on a year's expedition into the desert, you could only save three persons out of 10, leaving the rest to perish, which would you save: a brilliant scientist, aged 60; two half-breed guides; the scientist's wife, aged 39; her son, aged 6; the girl you are engaged to marry; your best friend, who is your own age; or yourself?"

It is reported that only one of the forty-nine competitors said that he would have himself, an answer which could hardly have pleased the inventor, who hopes to see the selected disciple blossom into Edison II. Personally, we should have felt inclined to reply: "Can't say. All depends what they look like, and how they behaved during the expedition." Such posers can never be answered honestly in cold blood, and the examination hall is the last place to choose for testing character.

Perhaps Mr. Edison secretly hoped that one of his candidates would be brave enough to say so. As a shrewd observer of human nature has remarked: "Nobody knows how he will behave in any given situation until the situation arrives."

THE Glasgow and West of Scotland Mission to the Outdoor Blind has been instrumental in installing over 250 wireless sets in the homes of invalids and lonely blind people in the district.

We have not spoken of picture transmission, of beam wireless, direction finding, radio drama, and a dozen other side-lines, each of which could demand a whole evening.

# RADIO DIRECTORY

## What to Buy and Where

### CITIES

- |  |                                    |
|--|------------------------------------|
| <b>ACE and HAMMARLUND SETS,</b>  | <b>Johns, Ltd.</b>                 |
| <b>WESTINGHOUSE Rectifiers</b>   | Chancery Street, Auckland.         |
| <b>BROWNING DRAKE SPECIALISTS</b>  | <b>F. J. W. Fear &amp; Co.</b>     |
|  | 63 Willis Street, Wellington.      |
| <b>BURGESS RADIO BATTERIES,</b>  | <b>All Radio Dealers.</b>          |
| <b>KING RADIO RECEIVERS</b>  | <b>F. J. W. Fear &amp; Co.,</b>    |
|  | 63 Willis Street, Wellington.      |
| <b>LOFTIN-WHITE AMPLIFIERS</b>   | <b>Stewart Hardware Ltd.,</b>      |
|  | Courtenay Place, Wellington.       |
| <b>MAJESTIC RADIO RECEIVERS</b>  | <b>Kirkcaldie &amp; Stains,</b>    |
|  | Wellington Agents, Lambton Quay.   |
| <b>MULLARD VALVES</b>  | <b>All Radio Dealers.</b>          |
| <b>PILOT 1930 PARTS—PILOT SUPER WASP KITS, GILFILLAN, KELLOGG and AT-WATER KENT SETS</b> | <b>Harrington's, N.Z., Ltd.,</b>   |
|  | 138-140 Queen St., Auckland.       |
|  | 40-42 Willis St., Wellington.      |
| <b>RADIOLA RECEIVERS and Expert Radiola Service.</b>                                     | <b>Farmers' Trading Co., Ltd.,</b> |
|  | Hobson Street, Auckland.           |
| <b>STEINITE RADIO</b>  | <b>G. G. Macquarrie, Ltd.,</b>     |
|  | 120 Willis St., Wellington.        |

### COUNTRY TOWNS

- |                                     |                                |
|-------------------------------------|--------------------------------|
| <b>MAJESTIC</b>                     | <b>Radio House, Hamilton.</b>  |
|                                     | G. S. Anchor. Manager.         |
| <b>PHILIPS VALVES AND APPARATUS</b> | <b>All Good Radio Dealers.</b> |

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## Programme Features

(Continued from page 17.)

### 3YA Broadcast

**TROT**TING results from Addington will be broadcast during the afternoon. At 7.30 Mr. H. J. Geddes will speak to farmers about "Easilage in Canterbury." This talk has been arranged by the 3YA Primary Productions Committee.

A programme descriptive of a day in the English countryside should prove interesting.

Redolent of the peaceful atmosphere of life in that part of old Homeland it will undoubtedly make a splendid broadcast. Numerous old rounds, part songs, pastorals, and folk songs will intersperse the programme. Connecting the threads of the theme will be brief explanatory remarks and descriptive elocutionary numbers. The solos will include a number of old favourites, such as "There Was a Jolly Miller," "A Hunting We Will Go," and "Tally Ho." The artists contributing to this programme will be the Avon Glee Singers, under the direction of Miss Millicent Jennings.

## FRIDAY

### From 1YA

**MR. F. R. FIELD**, under the auspices of F. R. Field Scientific Research Society, will broadcast from 1YA a further talk on the "Workings of the Sun and their effect upon the Earth—Part I."

The instrumental music to be provided by the Studio Trio will include a violin solo by Mr. Whitford Waugh. Mr. S. C. Lewis, the popular clarinet soloist, will be heard in several numbers, and Mr. Cyril Towsey in a piano-forte solo. The vocalists appearing on this evening's programme are well known, and need no introduction. The programme will conclude with a gramophone lecture-recital.

### 2YA Topics

**MR. COLIN W. SMITH, B.A.**, Technical Editor of the "Radio Record," will continue the series of talks on radio, dealing with aerials, earths, and set installation.

Listeners will no doubt remember with pleasure the Wellington Operatic and Theatrical Society's recent studio presentation of "The Belle of New York," and will be delighted to hear that arrangements have been completed whereby an evening of excerpts from comic operas and musical comedies will be given tonight.

These will include such well-known numbers from "Floradora" as "The Welcome Chorus," "In the Shade of the Palm," "Silver Star of Love," and the double sextet "Tell Me, Pretty Maiden." The musical comedy "Our Miss Gibbs" will be represented by the sextet "Correct," "Mary," "Country Cousins," and "Our Farm," the latter two being featured as humorous numbers by Mr. Will McKeon, who will also feature "Doogan's Fancy Dress Ball" from "The Belle of New York." The chorus "China Girl" and "The Finale from Act 1" from "The Belle of New York" will also be given, as well as a chorus from "So Long Letty," and a

solo from Monckton's musical comedy "The Toreador." The incidental numbers to be played by the orchestra will be selections from "On With the Dance," "The Gondoliers," "Stop Flirting," "A Waltz Dream," and "Dances" from "The Rebel Maid."

### Christchurch Items

**FROM** noon onward trotting results will be broadcast.

The Bailey-Marston Dance Orchestra has been engaged to provide the dance music this evening. The preceding concert programme will be of a very popular nature. Miss Elaine Moody's Hawaiian Trio, with steel guitars and ukelele, will provide some of the latest Hawaiian and other airs, with vocal refrains by Miss Moody. The popular Mascots will present two sketches, "The Baggage" and "The Miracle."

### 4YA Notes

**THERE** will be a "Mozart Evening" at 4YA, when the whole programme will be devoted to the works of that famous composer. A lecture will be given by Mr. Max Scherck, president of the Otago Society of Musicians. The singers for the evening will be the Harmonists Quartet.

## SATURDAY

### From Auckland

**AT** 7.40 p.m. Mr. G. D. Rutter will give a further talk on "Gladioli." A particularly fine programme has been arranged for the evening's session, including items by the 1YA String Octet, Ernest and Wendy Luks, Barry Ingall's Hawaiians, and the Basham-Briggs Duo, who will provide both solos and duets.

### Items From 2YA

**THE** 2YA concert programme will be of a vaudeville nature. The Salon Orchestra, under Mr. M. T. Dixon, will play as an overture Ketelby's well-known selection "By the Blue Hawaiian Waters," the popular orchestral novelty number, "The Voice of the Bells," the musical comedy selection, "Katinka" and several of the latest dance novelties. Two Scottish numbers will be sung by Mrs. Jeanie Potts, and tenor solos by the popular tenor, Mr. Stewart Nelson, will include a number from Woodforde-Finden's "Pagoda of Flowers" and the solo, "Love's Own Kiss," from the musical comedy, "High Jinks." Mr. Sydney Brewer, a baritone singer who has had experience with several leading amateur operatic societies, will be heard in two ballad numbers and popular songs at the piano will be featured by Mr. Billy Hart. Mr. Will Yates, the popular entertainer, will be heard in several humorous numbers of his arranging. The Golden Hula Quintet, a combination specialising in Hawaiian music, will contribute several South Sea Island numbers to this programme.

### Christchurch Notes

**THE** results of the final day's racing of Carnival Week will be broadcast.

A party of entertainers called the "Radio Rascals," will provide a vaudeville concert, which will be broadcast by 4YA.

The programme will be of the continuous type, choruses, sketches, songs

## Choke Construction

(Continued from page 15.)

another article, so only the specifications will be given here.

The choke is constructed of 1½ in. stalloy built to 1½ in., and with a winding of 300 turns of 18 s.w.g. d.c.c. will have an inductance of .5 henry when passing 2 amperes, the maximum current.

The spool ends are 2½ in. square by 1-8 in. thick, preferably of fibre, with an inside length of 2½ in., which will accommodate 38 turns per layer if the wire is fairly straight. Each layer should be shellaced when wound and allowed to dry for a few minutes before covering with brown paper and proceeding with the next. The "window" in the core will measure 2½ by ½, which is sufficient to accommodate the eight layers necessary.

An important point in this type of choke is that the direct-current resistance shall be low, and in this case it is less than 1 ohm, .91 to be exact, so that when one ampere is passing the drop will be .91 volt, and with two amperes 1.82, or less than two volts. If a lower resistance than this is required, 10 s.w.g. wire could be used. The amount of stalloy required will be 2½ dozen 3ft. strips.

Increasing the dimensions of the core raises the inductance, but as each turn is then longer, the resistance is not greatly reduced, although fewer turns will give the same inductance.

A smaller choke of ½ henry inductance may consist of 360 turns of 18 s/w/g on a 1 in. core, 12 layers, 30 turns per layer, the inside of spool being 2 in. longer, ends full 2½ square.

The larger choke takes 1½ lb. 9oz. of wire and the smaller 1½ lb 13oz. Considering the smaller inductance obtained from the small choke, and the fact that its resistance is slightly greater than the layer, there is no advantage in constructing the small choke except in a case where space occupied is an object.

The two gaps in the large choke should be 3-32 in. each if the full 2 amperes is to be carried. The gaps in the small choke should be not less than 1-16 in. each.

These chokes are suitable for smoothing the output of an "A" battery charger in conjunction with an electrolytic condenser of high capacity.

**A**N Italian doctor has been able to receive waves sent out by the human body. His receiving set shows them to be 4 and 10 metres.

and recitations succeeding one another rapidly. A number of excerpts from musical plays will be heard. The sketches will include "Horses," "Hats," "Mademoiselle," "The Eternal Triangle," and "Before and After." A male quartet will sing "Nell McRae" and there will be several duets. The finale will be "Songs of Yesterday."

## Our Mailbag

### Intolerance.

**"JAZZ** and popular music is littering the air and insulating the public in general. If modern dancers must have dance music, then it should be confined to the dance hall." That is one person's opinion, and undoubtedly he or she will find hundreds to agree. But—

Several B class stations give a request hour one night each week, and anyone may request any type of musical programme from symphonies to blues. With what result? The first thousand requests received for selections to be played during this programme showed overwhelmingly the demand for dance numbers and sentimental ballads.

Are these people to be denied their pleasure simply because someone else thinks that type of music is not good enough to be enjoyed? Do you blame the broadcasting stations for catering for the public? The theatres, the moving picture house satisfy the wishes and demands of the public, and if an enterprise is to be successful the customers must be pleased. When the public changes its view on music and makes its demand heard, the broadcasting stations will make the change very quickly. Until then one may expect to hear many hours of crooning lullabies sung by tenors, and hot blue numbers by women baritones, and fast, syncopated dance music played by popular dance bands.

A simple twist of the dials and you do not have to listen to something which is offensive to you, although enjoyable to someone else. It is not necessary to deprive others in order to enjoy yourself.—Spence R. Ellis (Okato).

### Progress of Rebroadcasting

**THIRTY** American relay broadcasting stations are now engaged in transmitting their programmes via short waves for foreign pick-up. Most of them are adjuncts of regular broadcasting stations. In addition, the Federal Radio Commission has issued construction permits authorising the building of six others.

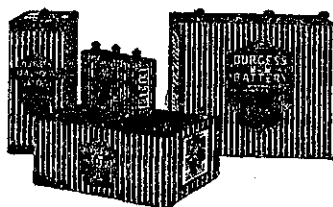
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## BURGESS RADIO BATTERIES

## Radio Programmes

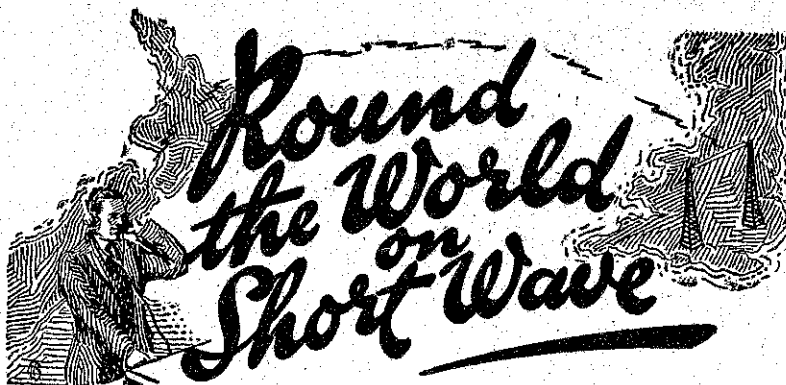
(To the Editor.)

MAY I be permitted to express a few comments on the programmes of the Broadcasting Company's stations. I realise that this is a subject that must be rather outworn by now, but there is one aspect that appears to have escaped general notice. In the first place I wish to say that it is my firm opinion that any listener who is dissatisfied with the programmes as generally transmitted at present ought to sell his radio set and buy a gramophone, when he will be able to please himself what he listens to.

It is rather amusing, to say the least of it, to read the multitude of diametrically opposed opinions that one reads on any particular programme. To the jazz addict I would say that I personally have found it quite possible to listen to jazz any night I wished to. But quite apart from whether Smith complains that he has to listen to too much highbrow stuff, the Broadcasting Company must realise that it has a duty in respect of the items it presents. Our "A" stations, as the national representatives of our broadcasting stations, ought to have an educational influence as well as merely fulfilling the position of entertainers, and the dissemination of good music should be one of their chief aims. My own particular complaint is this: I have been a constant listener now for many months, but I could count the number of times I have heard a Kreisler recording on the fingers of one hand. I have never heard a Grieg Concerto or a Beethoven Sonata. I heard a Gilbert and Sullivan only once, and that from a "B" station; I mean anything like the complete score of an opera. I have been personally associated with a private station, and I know that the owner has scores of requests for operatic pieces of all descriptions.

But I have heard the "Stein Song" on a number of occasions that must be getting near three figures. I have heard "Smiling Irish Eyes" till I feel like committing murder every time I hear it now.

How about the Broadcasting Company putting over the score of say one of the operas of the "Ring des Nibelungen," or a Beethoven sonata, or even some really good talking records instead of the interminable John Henry



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.

## Short-wave News

### Britain Talks to America.

ARRANGEMENTS have been made for a number of Sunday afternoon broadcasts by prominent people in Great Britain to listeners on the Columbia chain of stations in America. The series opened on Sunday, September 14, with a talk at Savoy Hill by Mr. John Masefield, the Poet Laureate. Among other speakers will be Sir Oliver Lodge, Lord Beaverbrook, Sir Herbert Samuel, the Marquis of Zetland, Mrs. Mary Agnes Hamilton, Viscount Astor, and Mr. H. G. Wells. These talks are to be transmitted via the Trans-Atlantic Telephone Service, the times being 5.30 a.m., Monday morning, N.Z. summer time. The wavelength to be used is not stated, but it will probably be one used on the regular telephone service, which ranges from 16.10 metres to 33.26 metres, according to the time of day and year.

It has been decided to increase the power of Konigswusterhausen (Zeesen) from 35 to 50 kilowatts.

THE station reported on about 49.9 metres during the early morning, in these notes, has been identified as 7LO, Nairobi. This station has been heard good enough in Australia to hear the call sign, but at the time of writing nobody in New Zealand has reported it, except as a query from an Auckland listener. I have not heard

records, which are by the way an excellent illustration of the fact that lack of variety is one of the most insufferable things in life. We have to put up with enough mediocre music in the way of raucous Americanisms which dominate the talkie stage. It has become a platitude now that most persons who dislike the so-called highbrow music do so because they do not get the chance to hear better. Let not the Broadcasting Company forget itself so far as to make the remoter ether resound to the interminable strains of negroid music—Axon (Wairoa).

[In complying with requests such as that of our correspondent, the Broadcasting Company, and for that matter "B" stations, are opposed by the Performing Rights Association. Some of the cases cited are typical examples of what the broadcasters must not broadcast.—Ed.]

7LO for several mornings now, since learning who it was.

VK2ME were heard to tell London that they were conducting tests with Bandoeng, Java, at present on Friday of each week from 11.00 to 13.00 G.M.T. (11 p.m. to 1 a.m. N.Z. summer time), in connection with the opening of a service between Australia and Java.

PK3AN, Java, 49.7 metres, and PMY, Java, 58 metres, are reported to be receivable at good strength from 11.41 p.m. (our time).

THE excellent Italian station, 3RO, Rome, has been missed from its 25-metre transmission recently. It would be a pity if they changed their wavelength, as reception has been very good on the one used during the past few weeks.

## Notes on Reception

A TRIP to Christchurch, followed by some alterations to my receiver, has prevented me from doing much listening during the past few days.

The mornings have been very poor, 5SW and Zeesen weak, with 3RO off the air.

FZR, Saigon (24.9 metres), and FTN, Paris (24.6 metres), have been heard at good volume on duplex, after 10 p.m. W3XAL and W9XF have been the best Americans, the latter carrying on till 7 p.m.

KIXR and RV15 have come in at excellent strength after 10 p.m., but static has spoilt reception.

A talk to New York from Sydney, via London, was heard on Friday evening. Speech from New York was a trifle unsteady; the quality was spoilt by retransmission, as GBP, the English station was excellent, when speaking direct to Sydney.

## Short-wave Notes

ON Sunday, 26/10/30, three new short-wave stations were heard JIAA, Tokio, Japan, at 2 a.m., was heard calling U.S.A., and later worked duplex telephony. Signals were not very strong, but clarity was excellent. Wavelength 35 metres.

KEL, Bollinas, California, working on about 43 metres, was playing records and calling JIAA, Tokio. Signals from KEL were good strength, and very clear. While working duplex telephony, JIAA was heard better through KEL than direct. KEL is located at Bollinas, and is owned by the Radio Corporation of America, KBK and KGRM, Radio Manila, on about 46 metres, were transmitting a special programme until 3 a.m., when I closed down. This station is not the ordinary relay transmitter which is heard nightly, as it was received with better volume and modulation than KAIR. The announcements made were: "KBK and KGRM, owned and operated by the R.C.P., transmitting a special test programme for reception in San Francisco." This station is identical with the Manila station heard testing on 21 metres during the week.—A. D. Rogers (Newtown).

## Crackling Noises

BEFORE blaming interference for crackling noises, it is as well to make sure that the trouble is really outside the set and not inside. This can be done by removing the aerial plug from the set. If the set is in order, no sound should be heard, but if noises are still heard it is obvious that the fault is in the set itself.

## FOR SALE OR EXCHANGE

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

**PERFECT** figure. Take little Youth-O-Form Capsule before meals. 20lb. reduction 6 weeks. 6/6 posted. A. C. Timms, Chemist, Pahiatua.

**£22** EAGLE Midget Electric Radio, Five Valves, Triple Screen-Grid, Dynamic. Ask for approval offer. R. H. Co., 553 Colombo St., Christchurch.

**CHARM** of girlish figure can be yours by taking Youth-O-Form. Price 6/6 posted. A. C. Timms, Chemist, Pahiatua.

**LOFTIN-WHITE** Amplifier and Far- and Dynamic Speaker, complete with valves. This is not an amateur job but is professionally made and in perfect condition. Used for demonstration purposes. £16.—"Loftin," Box 1032.

**ARE** you sensitive in Bathing Costume? Secure slender figure with Youth-O-Form. 6/6 posted. A. C. Timms, Chemist, Pahiatua.

**TWO** "Amplion" Public Address Amplifiers, offered ex Bond, Sydney. Original price £90 each. Must be sold promptly to highest bidder. Write for particulars to Abel Smeeton, Ltd., Customs Street East, Auckland.

**£30** up rich-toned Metrodyne "Sterling" Screen-Grid 8, 10in. Dynamic—Distance and volume second only to "Commander." R. H. Co., Christchurch.

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

**64** Stations on Metrodyne Screen-Grid "Commander"—Americans, Japs, China, Hawaii. List available. From £35. R. H. Co., 553 Colombo St., Christchurch.

## ADD-A-PHONE

To your A.C. Set and receive those Short-wave stations from the different countries of the world.

This can be successfully done with

**MACK'S FAMOUS ADD-A-PHONE.**

Call and Hear it Working. AT—

**MACK'S RADIO SERVICE**

76-77 KENT TERRACE, WELLINGTON.

Telephone, Day: 23-448.  
Night: 23-548.



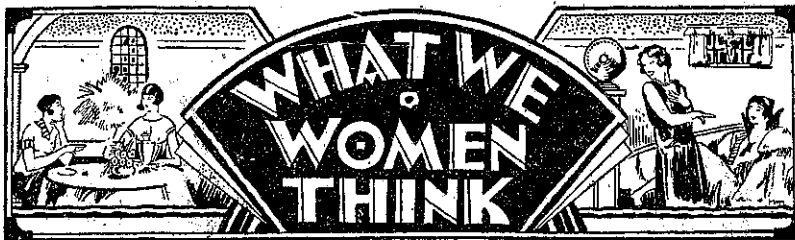
**CLARICE CLIFFE**, the clever young artist who created the famous bizarre pottery, is holding an exhibition of her newest designs in London. "Watching a child make a coloured paper cut-out gave me the idea for my new pottery table decorations," she told a reporter. "Flowers are so expensive for the table in winter, when one wants them most, that I decided to design these floral pottery cut-outs, which can be made to stand in a flower-put by half-filling it with sand." These new table decorations are realistic and colourful in the modern style. Vivid-hued tulips with their green leaves in a small pot of honey glaze (toning with the breakfast ware) would restore the appetite of a confirmed dyspeptic.

**RECENTLY** I visited a bride, who had everything that money could buy. There were several visitors, so I tried to help my hostess with the tea. I suppose it was clumsiness on my part, any way, it happened—I upset a cup of tea on a new "prayer" rug. My hostess wasn't at all perturbed, and said there wouldn't be a stain showing in a day or two, because she always rubbed the stains with salts of lemon, and afterwards with a damp cloth, and repeated this process until the stains disappeared.

**THOMAS ALVA EDISON**, the wizard of electricity and its greatest pioneer, rose from being a newspaper boy on trains to become one of the most prolific inventors of electrical devices. We could hardly have reached our present stage of advancement without his wonderful brain, full of novel ideas; and his workshops and staff of trained experts, always ready to set about the construction of model apparatus, by which his ideas were tried out. His first inventions were for his own convenience—a combination of clock and sending mechanism which would send the Morse letter "A" once every half-hour. It appears that he became slack in his duty as train checker on account of working so hard day and night; consequently, the chief operator insisted that young Edison sent out this signal every half-hour. What were the use of his brains if he could not think of something to help in this matter. Hence his little electric device, by using which he was able to sleep peacefully between trains—until one day he was found out and fired.

**ONE** of the romantic things about Salzburg in Bavaria (says an English correspondent) is that one is living in the hotels, during the musical festival, with all the great artists. In the lounge one will meet Figaro, whom he has heard singing an hour ago, prosaically ordering railway tickets from the hall porter. In the lift one runs into Tedermann himself, Herr Moissi, who plays Everyman in the great allegorical play of that name, which is performed at Salzburg every year. It is acted out of doors, in a huge courtyard, with the magnificent baroque facade of the cathedral as scenery, continuous hidden organ, orchestral and choral music from inside, and the bells tolling in the tower as a token of approaching death to Tedermann.

**THE** moulded silhouette is to stay, so say the fashion experts, but an effect of individuality will be achieved by variations of the neckline and sleeves. There will be puff sleeves,



long classic fitting sleeves, and many different types of elbow and cape sleeves. For dinners and informal dances long-sleeved gowns in metallic or ordinary types of lace have a distinct charm that is not always appreciated by the average woman. Yet the exquisite designs on lace and other materials are only shown to full advantage by severely cut sleeves and neckline.

**PROPER** food means a proper outlook on life. Jaundiced and distorted views are in many cases simply due to improper dietary, writes Dr. D. L. Anderson, medical officer for Doncaster, England, under the aus-

part with what proved to be a first-class collector's specimen.

**TWO** thousand miles from New York there is an enchanting island in the middle of a lake near the borders of Canada. It comprises about five hundred acres of wild and beautiful country, and it was here, in a Chinese pagoda, perched on a ledge of rock, that Sinclair Lewis is said to have written his famous "Elmer Gantry."

**THE** pyjama vogue, which originated on the Lido, and has now spread all over the Continent, is having its effect on the fashion world. Many of the women travelling on the "Blue

## Thought for the Week

"To keep in the rear of opportunity in matters of indulgence is as valuable a habit as to keep abreast of opportunity in matters of enterprise."

**THOMAS HARDY** in *The Mayor of Casterbridge*.

pices of the Central Council for Health Education. "Feed the Brute" is familiar advice to the wife who values her husband's affection, says Dr. Anderson, but "Feed him properly" is better. Overfeeding is worse than underfeeding. Both are bad, but overfeeding acts more speedily and is one of the greatest health-wreckers.

**HAS** anyone heard of a benzine cocktail? It is sold in the bar of an hotel in Vienna, and is not a drink but is used for re-fuelling petrol lighters.

*Somebody says that it creates a spirit of friendliness when people eat together. Except when they have a bone to pick.*

**M. EUGENE YSAYE**, the famous Belgian violinist and composer, has written an opera called "Les Mineurs en Gieve," which he considers the best of all his works. It is to be first produced at Liege, which is the birthplace of Ysaye.

**THAT** there are still in these sophisticated days a few unappreciated art treasures scattered about the English countryside is proved by the following story. A woman in a Yorkshire village was discovered chopping suet on a Sheraton table. When her horrified visitor offered to buy the table and provide another to replace it, she refused at first, on the grounds that the present table was just the right height for chopping suet! Eventually, however, she was persuaded to

Train" from the Riviera wear pyjamas and merely throw a coat over them when going out on the platform. Moreover, pyjamas have more or less supplanted evening dresses on the Riviera—at all events so far as dinner-dances are concerned. Nor is economy the motive, for so elaborate are the newest designs of "evening pyjamas," in the most delicate pastel shades, that they are far more expensive than the average frock.

**A** NEW YORK architect has designed a remarkable house. It is to be peaceful, for the harsh noises of the outside world will not penetrate its walls. In the summer it is to be cool, and in the winter warm. It is built on the principle of the vacuum flask, its outside walls being double and the space between pumped free of air. The building is thus rendered proof against the incursion of sound, heat and cold.

*Einstein finds American girls the most beautiful in the world. The Americans find this theory much easier to understand than his last.*

**WHEN** a thrifty Scotsman dropped his purse overboard from a Continental liner he sorrowfully said goodbye to it. Purses falling into Davy Jones's locker usually stay there. But this purse fell into the clutches of a crab, which, though unable to find in it anything of value, kept it tightly clenched in its claws. It may have been this very greed which was the crab's undoing; at any rate, it was

not agile enough to get out of the way of a Grimsby trawler's net, and it was caught, purse and all. That is the end of the story, so far as the crab is concerned. The Grimsby trawler's owner, more inquiring than the crab, found an address inside the purse, and restored it to its owner in Holland.

**THE** first man to patent a special camera for taking a moving picture by means of a continuous strip of sensitised material, was the Englishman William Friese-Greene, who took out his patent in 1889. Nearly every motion picture camera in use to-day is based on the original design of Friese-Greene. His patents ran out because he had not the money to renew them, and he died poor.

**NOW** that we are actually making talking pictures in New Zealand, it is interesting to note that the first cinema audience in England was composed of policemen. "One night in 1895," says Mr. Edward Cussy in his "Discoveries and Inventions of the Twentieth Century," the attention of the police was called to loud cries proceeding from a building in Hatton Garden. On entering, they found that what they had suspected to be a grim tragedy to be a joyful demonstration, which attended the first successful attempt to show moving pictures on the screen. The show was repeated for their benefit, and they were the first people other than Mr. Paul X, a scientific instrumental-maker and inventor, and his assistants, to become familiar with this new invention." At a very early date moving pictures were shown in this country.

**SIR JAMES CRICHTON-BROWNE**, a celebrated physician and mental specialist, observed that all Rossetti's women have long necks and a number of them suffer more or less from enlargement of the thyroid gland. With the Roman woman, a slight degree of goitre was thought to enhance beauty; with Rossetti it seems to have been almost essential to his conception of it.

**AT** Munich, where many music-lovers make their way every summer to enjoy the perfect production of Wagner's operas, there is a wonderful bathing-place on the river and quite close to the town. In the cabins they have a clever device for keeping out thieves while bathers are in the water. There is a revolving disc inside each cabin which discloses various names in succession. When the occupant goes out he has to turn the disc opposite one particular name, and on his return this name as well as the number of the cabin has to be given to the attendant, who verifies it.

### SMOKERS! ARE YOUR EYES WEAK?

**THEN** write or call to-day for our Booklet, Free. It is full of valuable and interesting information. Home Welfare Pty., A.M.P. Buildings, 36R Hunter Street, Wellington.

**HEARTBURN**  
Indigestion Acidity & all Stomach Disorders  
SPECIALLY RELIEVED BY  
**PEPTOS**  
THE GREAT PAW-PAW REMEDY  
3/6 AT ALL CHEMISTS

before granting admission. An excellent idea this for our approaching bathing season in New Zealand.

HERE is something to pass on to your husbands, sons or brothers in order that they may prolong their lives. In order to ward off the ill-effects of nicotine, consider well this remark: "A smoker who relights a pipe or cigar absorbs more poison than he would from ten ordinary smokes."

THERE are many women living alone in places where there is scant accommodation for the storing of under wear. The following suggestion has the advantage of being at the same time cheap and effective. Obtain a good-sized box from the grocer and have the lid hinged. Then cover the whole box with anything you prefer, cretonne, or, better still, American cloth, which will keep out the damp. Next fix castors on it or domes of silence if your floor is slippery. Add a padlock and make a loose covering for the whole, and you have a box ottoman which will not only serve as a linen chest but afford you a comfortable seat by the fire.

SMALL bachelor flats for business women are the crying need of the day. Some are in existence, but not nearly enough to supply the demand. One such establishment which I visited some time ago had twelve small self-contained flats, each with its own bathroom and kitchenette. Plentiful hot water was supplied by an electric hot water service, and there was an electric radiator in the sitting-room, thus avoiding the necessity for cleaning up a fire-place. Cooking was done by electricity and the tiny kitchenette was replete with all the latest electrical labour-saving devices. To business women who

are out all day, such an easily-kept flat is a real boon, affording, as it does, the comfort of a good hotel and the joy of a home.

TO win a £10,000 prize in competition for the best idea for a film scenario, was the welcome success achieved by Miss Fannie Hurst, who has just been entertained in London by a number of English novelists. She is said to be the best paid short story writer in the world.

LONDON'S newest theatre, the Cambridge, will provide enterprising housewives with many interesting ideas for home decoration. Here are a few of the possible ones: Metal chairs with can seats painted to match the colour of the room. Silver, gold and bronze leaf in graduated bands of colour on one wall. British-made Wilton carpets having geometrical designs in variety of tones of a single colour. Similar modern designs in rubber flooring suitable for kitchens, bathrooms, and halls. Washable canvas for upholstered chairs.

I KNOW most women clean their baths with kerosene, but why not make a paste of whiting, using kerosene? The kerosene is a grease solvent, and whiting is so mild an abrasive that it will not scratch the enamel. After rubbing on well, rinse thoroughly with hot water.

HAVE you ever spilt ink on a tweed costume? I have, and I tried everything I could think of to take it out. A friend suggested that I saturate the stains with turpentine (I've done that for paint), and let it remain for an hour or so. Then sponge the part clean with cold water. Would you believe it, it came out as easily as possible.

THERE are a great many ideas in circulation, and all of them good, for cleaning aluminium ware. Here is one, however, that I defy not to move the most stubborn stain. Mix finely sifted wood ashes with enough vinegar to make a paste, and rub until the stain disappears.

THE proper way to fold a coat for packing is to lay it out perfectly flat, with the wrong side down. The sleeves should be spread out smoothly and then folded back to the elbow until each end of the sleeve is even with the collar. Fold the revers back, and then double the coat over, folding it directly in the centre, and then smoothing it out carefully.

DR. TON MJOEN, of Norway, speaking at a Eugenics Conference held in England recently, had some very pungent criticisms to make on the present education of women at the universities, which, he declared, were the graveyards of our best stock. The education of women should not be masculine, according to Dr. Mjoen. We should, in the training of women, teach biology—renewal of the family chemistry—nourishment of the family; hygiene—protection of the family, and similar sciences, which would attract the interest of our girls toward the home, instead of the present education, which is turning them away from the home.

—ALISON.

## Tourists Mean Cash Curious Psychology

### Visitors Buy Well

WE are often told by visitors from other countries that we ought to do more to encourage tourist traffic to New Zealand. And, indeed, it would appear to be profitable when one reads that the shopkeepers in Europe benefit annually to the amount of nearly £3,000,000 from the summer "invasion" of Americans. Every liner leaving a British or Continental port has great rooms filled with purchases made after a tour of the shops of the principal European cities. It is noteworthy that goods bought in London predominate in this amazing collection, which includes such varied articles as men's clothes, from fashion-

MY friend and I one afternoon visited an auction sale of seaside sections. We looked carefully at the plan and position of the sections first, and decided on one. We heard the reserve price was £250, but to be on the safe side we decided we would go up to £150, with £10 deposit and the balance in five years. Yes, between us we could just manage that—but we really were only treating it as a joke. Well, we went into the long room, where the sale was being held. It was a room so long that it must have been two or three rooms knocked into one. There were a number of very dingy people in it. Nearly all were men, with a sprinkling of hard-faced women. The section we had decided on was put up first.

"Any bid?" I called out "£150." My voice boomed, though I thought I had called so quietly. Everybody looked at me. I felt as if I had transgressed, or suddenly walked in upon a meeting of conspirators. The next man called, looking at me contemptuously, "£250." Then the bidding stopped. Later in the afternoon, after—so it appeared to me—nothing had been done, we had tea brought to us; then we suddenly found ourselves surrounded by three important-looking men, who were extremely pleasant; and their cleverness passeth all understanding, because before we left we found we were the possessors of Lot I at the sum of £250, and that this was the only section sold that day! This was a dearly-bought experience, but the psychology of an auction sale might fool the cleverest of men. The weapon used was one that made us feel we were keen, business women with great foresight! However, the fates were kind for we sold this section the other day for £450 after holding it for two years; but the next sale we attend we will be "old hands" and not be the first to move.

READING in the "Record" that practically everything centres around broadcasting, I thought the following typical:—

In a small town with the usual outside post office notice board, whereon is posted notices of dances, meetings, etc., there appeared the drawing of a loudspeaker. From it issued six or seven wavy lines, and between each line were distributed: "Hockey Club. A dance will be held in public hall on July 10. Subs.: Ladies 2/6 gents 3/6." Underneath was written: "This is the end of our news session, and we are now closing down till 8 p.m., when dancing will be commenced."—Helen Sen (Waiau).

### YOU AND I

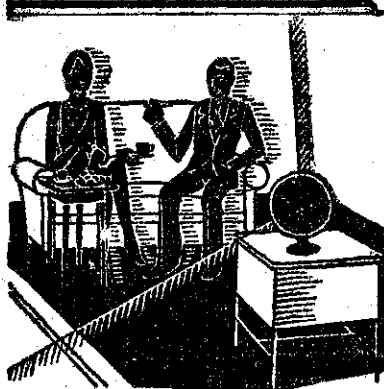
A sparkling June, a tranquil noon,  
A star-strewn sky.  
A quiet walk, a pleasant talk,  
Just you and I!  
Could we, together, brave rough weather,  
By-and-by?  
We cannot tell—'tis just as well  
—We can but try.  
—BECKY.

able London tailors, lace from Nottingham, cakes from Scotland, and cream from Somerset.

The shipping companies do their best to help by instituting a receiving system, by means of which intending passengers may have goods sent direct to the company's office at the required port of embarkation. The tourist season in New Zealand is drawing near, bringing with it the usual parties of American visitors, who might be interested in special displays of New Zealand goods. It seems a pity not to capture even a small fraction of that £3,000,000—it might help to pave the way to Auckland, as well as to prosperity.

### Modern Habits

WHILE listening to a lecture from 2BL recently, I was pleased to hear Dr. Arthur, Minister of Health, very strongly advocate the wearing of short skirts. He said that unless a firm stand was taken in some way by the women against the wearing of long skirts—which are fast coming into vogue—they would very soon be worn long enough to serve as floor-sweepers, which is most unhealthy, gathering up all the microbes imaginable. He also advised women not to resort to the use of stiff whalebone corsets, which are most injurious to the health, but will inevitably become the fashion if long skirts gain the day. Dr. Arthur recommended girls to walk to and from business; not to acquire the habit of jumping into a bus or taxi at every turn. Walking, he said, is good exercise, good for the health, figure, and complexion; also keeps one fit and trim to enjoy a game of tennis without becoming fagged so quickly.—Nada.



### The end of a pleasant evening

Is always marked by a cosy little supper. Next evening YOU have, serve dainty golden brown cakes and scones of your own baking. A few spoonfuls of—

### ANCHOR SKIM MILK POWDER

added while you are mixing them and you'll be ever so proud of the result. More delicious—better appearance—and they keep fresh for DAYS longer.

Price 1/2 per Tin

Your Grocer can supply.

Free Recipe Folder of Tested Recipes—write "Anchor," Box 344, Auckland.

**SORE THROAT?**

**Pulmonas**

**PASTILLES**

**QUICKLY RELIEVE**

1/6 a tin all chemists

WE have pleasure in placing before listeners this unique series of articles by Mr. Frank Hilton, who has operated in Wellington City successfully for quite a number of years, at one time owning and controlling a chain of shops. He also held important positions with leading catering firms in the Old Country. Original recipes, compiled by one with the experience possessed by Mr. Hilton, are indeed rare, and we are sure they will find favour with our readers. They are, in the main, a reproduction of talks broadcast from 2VA.



### The Heat of Ovens.

NOW a hint or two about the heat of ovens. Some of our more fortunate listeners may have thermometers or pyrometers on their ovens; others have to rely more or less on their own judgment. I find a good plan of working a strange oven is to throw a sprinkling of flour on the oven shelf, close the door and see how long it takes to brown nicely. If it browned up nicely in, say, one minute, then I knew the oven was about right for scones.

Another way is just to drop a few spots of water on the shelf while it is in the oven and watch if it sizzles up nicely, then the oven is right.

Should you require date scones, stone the dates with moistened fingers, then add them to the mixture after the dough is made and before it is rolled out. On no account must any fruit be mixed with the dry flour, as if this is done the dates turn dry and hard, and are bound to show white flour on their skins somewhere. When baking scones remove them from the oven immediately they are cooked. If the oven is right they should be a nice golden brown, equal colour top and bottom, with a very fine crust, transparent, if possible, when cut off. The interior should be as nearly like a honeycomb or sponge as possible.

Leaving scones in the oven to brown after they are cooked through can only be done at the expense of texture and flavour.

*Remember: Mixture right and oven right, and you have a perfect article.*

### Sponge Sandwich.

SPONGE cake, like any other kind of cake, varies very much according to the fancy of the makers. Like the scones, there are many kinds. Sponge cake is the lightest kind of cake within the scope of every-day cookery; it is also the most wholesome and easily digested of cakes. It lends itself to almost any kind of filling and sandwiching, and also icing and fancy decorating. It is easily made. An oven of only moderate heat is needed, but for best results the oven must be what we call solid; this means it must not fluctuate in the slightest: no putting on a bit more wood to touch it up a bit, or turning on the gas whilst sponges are in the oven. An ideal oven for a really exhibition sponge is an electric oven. But I have seen many exhibition sponges made in ordinary stove ovens. The electric oven, however, has the advantage that the heat is absolutely uniform, which is so necessary to sponge cakes. Of course, I know that all of you do not have electric ovens, but if you will follow my directions closely you will be able to make a very good job under most ordinary conditions. Now for our sponge sandwich recipe:—

**Ingredients:** Four whole, good-sized hen eggs,  $\frac{1}{2}$  lb. sugar,  $\frac{1}{2}$  lb. flour,  $\frac{1}{4}$  oz. cream of tartar and soda baking powder.

**Method:** Weigh the flour and powder into the sieve I told you about previously. Pass them through several times to thoroughly mix the powder. You may not have weights small enough to weigh quarter of an ounce of baking powder; if you haven't, take one penny and halfpenny for weights, this will give you half an ounce. Put the half-ounce of powder on the table and divide it equally in halves with a knife; this will give you  $\frac{1}{4}$  oz. of powder, or near enough.

Now we come to the actual making of the sponge sandwich: Crack the four whole eggs into a mixing bowl, add the  $\frac{1}{2}$  lb. sugar slightly warmed in the oven or on the stove. The warmed sugar will enable you to beat up with much less effort. Now beat eggs and sugar together until the sugar is dissolved or until the mixture doubles itself in volume. It is then ready for the sifted flour to be gently stirred in; and your sponge is ready for the oven. This recipe and method gives you a good wholesome sponge cake fit for healthy school children's lunches and picnics.

SHOULD you require a butter sponge, put, say  $\frac{1}{4}$  oz. butter to melt to a liquid in a cup or tin, and after you have mixed your sponge and the flour is all incorporated, pour in your hot melted butter and stir it gently into the mixture. Do not let it get cold, and do not toughen it by beating. Spread it out quickly in your sandwich tins and bake straight away, as if the butter sets in the mixture it will prevent it rising in the oven. A good plan with sponges is to keep everything nice and warm.

### Using Tins.

NOW a few hints about tins. The mixture I have given makes about  $1\frac{1}{2}$  lb. of cake. The ordinary home-made sponge sandwich weighs about  $\frac{1}{2}$  lb., so you will see there are two tins to have ready. Many people have trouble with sponge cakes sticking to the tins: this is caused either by improper greasing or undissolved sugar grains in the mixture, or probably not a very good bottom heat in your oven. All tins should be greased with hot beef dripping, put on with a brush; an ordinary glue brush I find the best for greasing tins, as this stands the hot fat and will last a lifetime. After the tins are greased, sprinkle them with dry flour over the greased part, and then give them a tap on the table; sufficient will be left sticking to the tin to give the crust of the finished article that beautiful smooth finish so much desired.

Should your oven have too much bottom heat cut a piece of parchment or butter paper the same size as the sandwich tin, place it inside the sandwich tin, and pour your mixture on top of the paper. This can easily be peeled off when the cake is cold, and will stop the bottom from being too brown. Unless your oven has an excessive bottom heat avoid sandwich tins with a beaded edge at the bottom, as the air cavity underneath the tin will certainly give you a very pale crust and probably result in sticking. All tins must lie flat and come in direct contact with the oven shelf.

### Baking the Sponge.

NOW for a few hints on baking: We are right after that golden brown again. Do not move a sponge until it is set; this does not mean cooked. You may turn it after it is set. The way to tell if your sponge is cooked is just to press your finger in the centre and lift it off again quickly. If the cake springs back like a sponge, then it is cooked; if the dent stops in, leave it in the oven a little longer. No exact time can be given for baking, as ovens and mixtures vary. If your mixture comes up and then sinks down again, your mixture is either too light or unevenly balanced, probably too much sugar. If it does not come up enough it is not aerated enough or is toughened or chilled in the mixing.

Now, follow these directions and you will be sure to get something usable. One thing is certain: you will not absolutely spoil anything. You may not make an exhibition sponge the first time, but whatever your efforts, the result will at least be edible and not wasted. Now a word or two about fillings. I will just deal with one or two, as fillings and decorations would take a whole article and will be dealt with at some future date. Of course, in this cow country there is the whipped cream, everybody knows how to do that—its chief drawback is that it won't keep, and most of our country folk are well tired of it, so try this one, raspberry cream filling: 3oz. of icing sugar, 2oz. butter; beat up to a cream, then add about 1oz. of pure raspberry jam and a pinch of tartaric acid. The acid is not absolutely necessary, but it gives a sharp fruity flavour and brings out the raspberry flavour in the mixture. Spread this on your sandwich and you have an excellent filling that will keep fresh for several days. Another good filling is coffee cream filling: Take 3oz. icing sugar, 2oz. butter; beat them up to a cream, then add some coffee essence to taste; any well-known brand will do. You should get a nice brown cream, smooth eating and of good keeping quality.

Now for the finishing or decorating. Space permits me to deal with one, so we will take the humble passion fruit icing. Put the required amount of icing sugar in a basin, say about 4oz., cut the passion fruit in two, scoop the contents into the icing sugar, then add very slowly some boiling water to make into a nice smooth icing; put in a pinch of tartaric acid to enhance the flavour of the passion fruit, then spread whilst still warm on your sandwich, and you have the finished article.

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## Wavelets

**ENGLISH** stations broadcast this season a series of open-air concerts from the Queen's Hall, the first being transmitted on August 9.

Calcutta now owns a short-wave transmitter which works on 25.36 metres.

Station WGY, Schenectady (U.S.A.) actually works on 500 kilowatts.

In America receivers in rustic or antique cabinets are the vogue.

The Vatican station has to work on two wavelengths, 50.26 and 18.84 metres.

The power of the Koenigswusterhausen station was raised to 60 k.w. in the summer.

The British Broadcasting Company has formed an orchestra of 112 musicians, who gave their first performance on October 9.

Sixty-eight schools, colleges and universities in America have transmitters.

The National Radio Exhibition in Scotland will be held in Edinburgh in November.

In America the law imposes a fine of a little over £1 and five years in prison for sending out false SOS signals.

The National Broadcasting Co. of America has 73 stations which operate in conjunction with short-wave stations. The Columbia chain has 71.

The first International Congress of television, organised by the International Institute of Brussels, will take place in July, 1931.

**A** SIX per cent. tax is charged on all valves and radio apparatus sold in Belgium. Either the constructor or the importer must meet this obligation and the money is paid to the National Institute of Broadcasting.

**A** MICHIGAN orchardist is keeping destructive birds away by the use of a scarecrow and radio loudspeaker combination, the latter being connected to the radio set in the house. As long as it does the work, the owner says, he does not care whether he gets static or advertising.

**IN** 1931 there will be held in Madrid a Convention of radio-telegraphists. This has been the first official conference since that in Washington in 1927, and it will discuss many important problems concerning international radio telegraphy. Undoubtedly Russia will send representatives to this convention. An unofficial one is being held this year in Copenhagen.

**A** SECRET station has been discovered in the French town of Metz. This transmitter goes on the air every

day at 12 o'clock and broadcasts local and general news followed with literary or scientific selections. Once for example it presented the geographical history of the valley of the Metz. It seems that although attempts have been made to locate this station, they have so far failed.

**A** ROUMANIAN Expedition left for the Arctic regions on July 1 last. In order to maintain communication with Europe a 200 watt transmitter operating on 23 and 40 metres and a 75 watt communication outfit for amateurs, as well as another of the same power operating on 65 metres for aviation purposes were carried. It is interesting to note how modern expeditions into these remote parts thoroughly equip themselves with radio.

**A** EUROPEAN station recently held an interesting competition. Listeners were invited to decide whether the transmissions they heard at a given time were broadcasts of gramophone records or of the original items. Of 16,274 answers, only fifty-two were right. This certainly shows how much advanced the technique of gramophone record broadcasts has become, and it will be well to beware in future, as even the best-sounding orchestra might be a record after all.

**A** RUMOUR has been circulated that two high-powered broadcasting stations are to be erected in Belgium, and they will transmit English programmes in opposition to the B.B.C. station. It was even rumoured that the company operating these stations would be known as the International Broadcasting Company. Such a condition would have raised important international problems, but the information, says a French journal, is without foundation. The National Institution of Broadcasting in Belgium is directed by a national group who do not accept any matter savouring of publicity. It is unlikely, then, that they will allow them to broadcast English programmes.

**IN** Berlin a giant loudspeaker which can be heard over 10 miles away has been constructed. Its power is equal to that of an orchestra of 2000 instrumentalists and its weight 4 ton. Placed on the roof of a well-known firm's premises the loudspeaker has caused a sensation in the neighbourhood. The disturbance was so great and so many protests were received that the constructors had to evolve a new idea. This speaker was attached to a balloon 3000 feet high. Its volume then was only comfortable. Let us hope, says a French exchange, that our people will not be inflicted with the same idea and decide to install such a speaker in the Eiffel Tower.