

PUBLISHED WEEKLY

THE RADIO RECORD

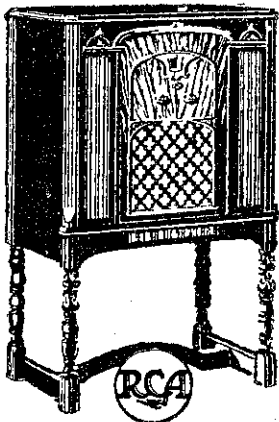
AND
ELECTRIC HOME JOURNAL

Vol. IV., No. 21.

WELLINGTON, FRIDAY, DECEMBER 5, 1930.

Price, 3d.

**7 Years
Ahead!**



RADIOLA 80

Special Features: Latest type Super - Heterodyne. Screen-Grid, Nine tuned circuits. Dynamic Speaker, Push-pull Amplification, Local - distance Switch, Perfected Volume Control, Kilocycle Dial Marking, Illuminated Dial, No A.C. Hum, Beautiful Cabinets.

The NEW RADIOLA 80

SCREEN-GRID SUPER-HETERODYNE

To-day we offer you the new Radiola which has been perfected after seven years of intense research of the greatest staff of radio engineers ever assembled. Visit your Radiola dealer for a demonstration. You'll be thrilled by its performance.

If you really want the best—RADIOLA!

Amalgamated  **Wireless**
(Asia) Ltd.

P.O. BOX 830,
WELLINGTON.

New Philips Portable Radio

Masterpiece of Skill

Astonishing Results

A careful examination of the new Philips Portable Radioplayer only serves to confirm the writer's unhesitating admiration called forth by his first cursory inspection of this new Philips product. It is undoubtedly a masterpiece of radio engineering genius. Such beauty of construction—inside and out; such compactness with freedom from interacting fields; such extraordinary radio frequency amplification without distortion.

The set, as it stands, is fitted with low consumption valves and batteries. This is, of course, an essential if true portability is to be achieved. The speaker is a balanced armature type, and built into the cabinet, which rotates on an almost flush base pedestal, is a frame aerial of ingenious design.

Connections are provided for an exterior aerial, and also for a pick-up feed to the audio side of the amplifier, so that gramophone records can be electrically reproduced.

Tuning is simplicity itself; mono-control and direct logging make things easy for the novice, and all switching is entirely automatic. Considering the size of this machine and the effective area of its baffle, it has an extraordinary audio frequency compass with even response.

A further indication of the thoroughness behind the planning of this set is that a weatherproof cover is provided with the set to give protection to the cabinet when conveyed from place to place.

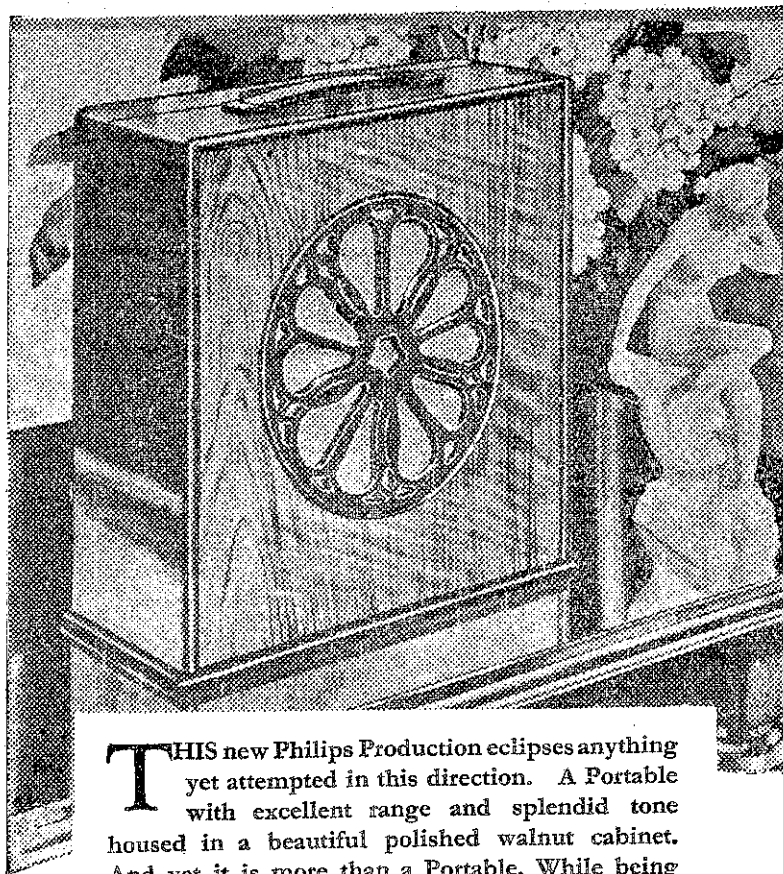
Of course, out of season, vacation times over, it is just as useful as, and considerably more beautiful than, many modern sets that we have seen. Resting on a record cabinet or side table, it will grace any room, its walnut housing designed to harmonise anywhere. Fitted now with some form of battery eliminator, and connected to an outside aerial, it will challenge results with any radio receiver on the market.

The Philips people have been a long time in bringing out a portable outfit, and they have fully justified their previous reluctance by the unqualified superiority of their final product. It is said that the Philips engineers have been working for several years on the design of this set. Having examined well and truly every inch of every component part, it can truly be said that not for years has such an advance been made in the construction of sets for the everyday man who is not equipped with technical knowledge.

Ideal Holiday Set

It is safe to predict that very many of these Philips Portables are going to travel through New Zealand this summer. Beach, riverside, mountain and farmhouse can now awake to music that is really musical, and in a way that a year ago was quite impossible. Truly, Philips have produced nothing so amazing since they brought out the All-Wave Radio-player. Among a host of foreign radio receivers it is pleasant to see a British product towering head and shoulders above all.

EXPERTS PRAISE THIS NEW PHILIPS TRIUMPH!



THIS new Philips Production eclipses anything yet attempted in this direction. A Portable with excellent range and splendid tone housed in a beautiful polished walnut cabinet. And yet it is more than a Portable. While being entirely self-contained—aerial, batteries, screen-grid chassis and loud speaker all in—it is portable and eminently suitable to grace the most tastefully furnished drawing-room. And it will, in addition, electrically amplify your records. There is nothing to approach it in appearance or performance. You should SEE it and HEAR it—ask the nearest Philips Dealer for a demonstration.

PHILIPS

BRITISH MADE PORTABLE

radioplayers

W50R

Advertisement of Philips Lamps (N.Z.) Ltd., (Radio Div.) Hope Gibbons Building, Courtenay Place, Wellington
Auckland Office: Paykel's Building, Anzac Avenue, Auckland



The function in Wellington, on the occasion of the recent inauguration of the wireless telephone service between New Zealand and Australia and New Zealand and Great Britain. The photograph shows the representatives of Government departments and prominent business men of Wellington who attended the inauguration.

—“Dominion” Photo.

Talking Overseas

Wireless Telephone Service to Australia is Now Available

AN event of the highest importance in New Zealand radio took place last week when the radio telephone service between New Zealand and Australia was declared open. Last week we were able to tell how the experimental link between New Zealand and England had been successful, and it was intimated that the service between New Zealand and Australia would soon be commercially available. On Tuesday last the great forward step was made and now any telephone subscriber in New Zealand can ring up Australia, surely a remarkable feat. Wireless telephone has been in operation between England and Australia for some time, and it has been the ambition of engineers and the New Zealand business community to have this link extended to our own country. Now that it has been done it is reported that very full use is being made of the service.

They were historical gatherings which met in the Parliament Buildings and in a Wellington business house on the afternoon of Tuesday last. In the former Sir Apirana Ngata, representing the Prime Minister, the Secretary of the General Post Office, the Chief Telegraph Engineer, and a member of the Telegraph Engineer's Office were present, and it was from here that the first official telephone conversation was made with Australia. At the larger gathering were prominent business men from Well-

ington, and each was equipped with an earphone so that the conversation between Sydney and New Zealand could be heard distinctly.

In his speech in declaring the service open Mr. G. W. Robertson, the New Zealand manager of Amalgamated Wireless, remarked upon the wonderful achievement of the age which enabled the human voice to be flung over 1000 miles of ocean and permitted it to be reproduced faithfully at the other end through all the variations of the atmosphere. The apparatus must be thoroughly up-to-date, delicate and accurate. His company was very proud that they had had the opportunity of installing it, but he wished to stress the point that the actual work in connection with fitting the apparatus had been done solely by the engineers of the Post and Telegraph Department. They had had innumerable difficulties to contend with but had persevered and had finally shown that they were able to get 100 per cent. success from the apparatus. These engineers were New Zealanders, and the fact that they had not needed outside assistance was a point deserving of the greatest commendation. Normally the company would have put the service into operation itself, as it had done in other parts of the world, but in this case it was quite unnecessary.

He referred to the foresight and ability of the managing-director of the company, Mr. E. T. Fisk. It was through him that the

New Zealand and Australia Linked by Telephone

(Continued from Front Page.)

communication first between Australia and England, and latterly between New Zealand and England, had been brought about.

On behalf of the Government, Mr. W. A. Veitch said that the occasion was important, not only as a technical accomplishment, but as a link which made for harmony, peace and good will among the nations of the world. In these days when we were accustomed to scientific achievements we could not fail to be impressed by this last accomplishment. Britain had developed her power because she controlled communications and she was still the greatest nation because she was quick to realise the value of the new scientific link that radio was providing.

"If we looked upon the achievements of our Empire in that light we may well give vent to our imagination as to what such a nation, inspired with such high ideals, may achieve in using the amazing inventions of our scientific and technical men. We began today by sending kindly messages of goodwill to our brothers across the Tasman Sea, and I venture to say that as the years go by, this method of communication, which carries with it

the sound of the human voice, will ultimately become a great organisation which will be used to make friends for the British Empire in all the corners of the earth."

Speaking to Mr. Fisk later by radio telephone Mr. Veitch said that the distance between the two countries was the only thing between them. British people were proud of the fact that they could build together and face common difficulties. The ideals that had inspired the sons of both Australia and New Zealand in the Great War would not be forgotten in these times, and that would be an inspiration to establish a new Britannia on the Southern Seas, of which Australia

and social benefit from the new service. Referring to the hard times in Australia, he said he was quite satisfied that they would pull through satisfactorily. No doubt New Zealanders were doing their best to produce plenty of butter, cheese and lamb and other important products. They were doing that in Australia and were quite sure that everything would be quite normal before long.

To Assist Trade.

MR. E. T. Fisk, managing director of Amalgamated Wireless, speaking from Sydney, sent greetings to New Zealand. New Zealand and Australia, he remarked, were isolated British communities, and it was a great pleasure to take part in the inauguration of a service which would bring them together. It was hoped that the service would assist the trading and commercial interests of the two countries and enhance their social relationship and help the Press. He congratulated the officers of the New Zealand Post and Telegraph Department and expressed friendship and goodwill as between the two outposts of the Empire. In making a resume of the development of telephone wireless he made the point that any telephone user in Australia had facilities for direct conversation with at least 50,000,000 others in Britain, Europe and America.

Mr. Kitto, who represented the Australian Postmaster-General's Department, briefly congratulated Mr. Fisk on the success which attended the opening of the service, possible extensions of which in the next few years, in view of the wonderful developments that attended communications within the lifetime of a number of those present, could hardly be visualised today.

The Secretary of the Post and Telegraph Department, Mr. G. McNamara, also spoke over the wireless telephone and expressed the hope that the service would be of the fullest use to both countries.

Mr. A. Gibbs, Chief Telegraph Engineer of the Post and Telegraph Department, talking to Mr. Fisk, said that he was very pleased with the manner in which the apparatus had operated. It had given a first-class ac-

count of itself, and he hoped to extend the system so that 99 per cent. of the world's telephones would be placed at the service of New Zealand subscribers.

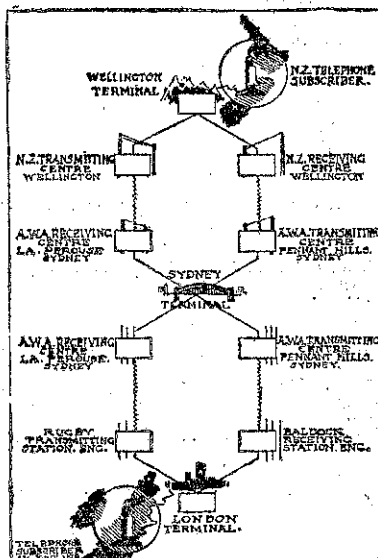
Although after these speeches the formalities were at an end, several of the business men present requested that calls be put through for them, and despite the difficulties attendant upon a request of this nature, Mr. E. H. Lawn, who was in charge of the technical aspect of the telephone, put through the call as though he was putting through a city ring. In one case the head of an organisation was called up in Sydney and when the bell rang answered it as though he was taking an ordinary local call. He expressed the greatest surprise when he recognised the voice of his New Zealand representative at the other end.

Another interesting fact in connection with the official opening was that the representatives of the Press who were taking down the speeches did so through the telephone receiver. They were not supplied with any notes, and those who were present agreed that the reports were remarkably accurate.

The First Call.

THE commercial call, in fact, before the official opening, was made a few minutes after 2 o'clock yesterday, when Mr. A. McCutcheon, the New Zealand Director of Western Electric Co., spoke to Mr. J. H. Barker, the managing director of the company, who had gone to Sydney to take up a similar position with the Australian Company. Mr. McCutcheon said that he felt it an honour to represent the first commercial house in the Dominion to use the trans-Tasman radio-phone service. The conversation might be regarded as expensive—costing £1 per minute—but there were times in business when a conversation over such a vast expanse of sea was worth it. He said that he found it necessary to speak loudly and clearly, and no difficulty was experienced in holding the two-way conversation. Certainly the voice faded at times, but quickly returned to normal. It seemed inconceivable that he was talking to his principal per medium of the

(Concluded on page 5.)

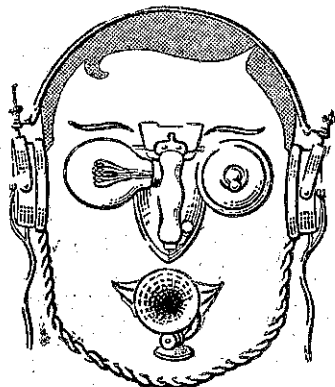


and New Zealand would be component parts.

From the Parliament Buildings the first official radio telephone conversation took place. It was a Maori greeting from Sir Apirana Ngata followed by a remark that he hoped the Australians could understand Maori. "Mr. Ransom is away from duty just now, and I am taking his place," said Sir Apirana. "We send you greetings from New Zealand, and we are cognisant of the importance of this occasion and this official opening of communication by radiophone. You are having a hard time over there and so are we, but I think we shall manage to pull through. Greetings to you, good-bye."

Mr. Fenton, Acting-Prime Minister of Australia, returned Sir Apirana's greetings, and remarked that he was equally pleased to be able to take a part in what was probably the most important event that has been celebrated across the Tasman. The two countries had a great deal in common and the telephone link would be a further asset to the promotion of goodwill. He hoped that ministerial visits between the two countries would be more common. Personally he was sure he would derive great commercial

ELECTRIC GIFTS
for XMAS are
Guaranteed for the
NEW YEAR
"ALL OF 1931."



Call or write about Electric
Goods, especially the
BLUE SPOT RADIO.

Bob Horrobin

Flashlight Corner,
2 Courtenay Place, Wellington.
Quick Repairs 'Phone 22-357.

BATTERY RADIO RECEIVER

Wonderfully Efficient All-Wave Receiver, the

NEW COURIER

SCREEN-GRID

Will receive all the usual Overseas Broadcast Stations, and the World's recognized Shortwave Stations at good loudspeaker strength. Complete with Philips Valves and Speaker, Burgess "C" and "B" Batteries and Accumulator, all ready to attach to aerial.

PRICE ... **£27/10/-**
Small extra cost for Shortwave
Coils.

N.Z. Distributors:
RADIO LIMITED
AUCKLAND.

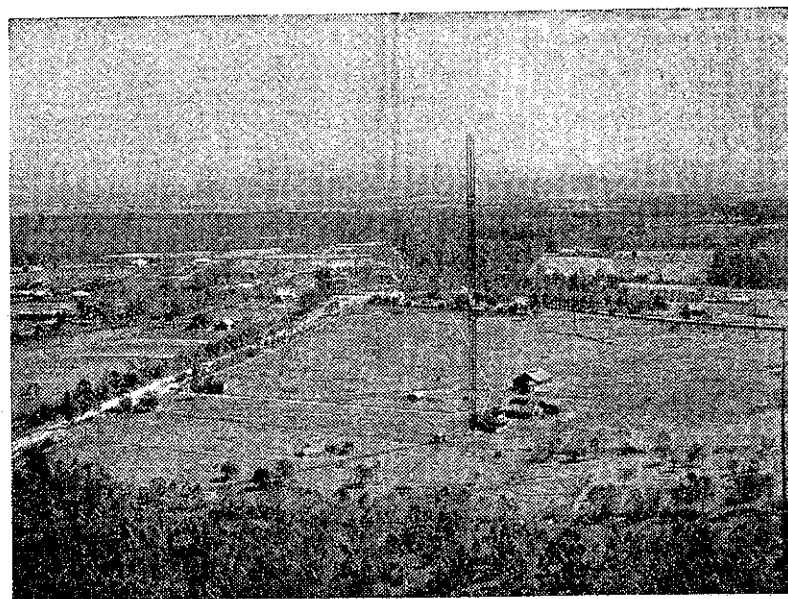
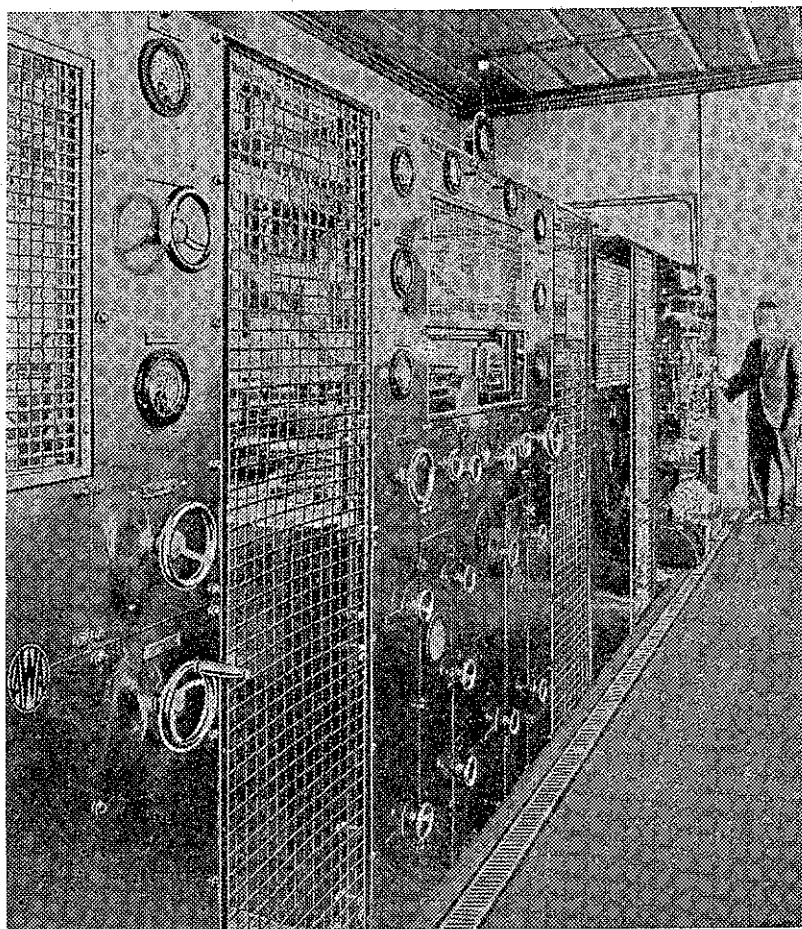
Great Advance in Inter-Colonial Communication

Aspects of the Service

Mr. E. T. Fisk, managing director of A.W.A., through whose pioneering efforts wireless telephony services are now operating between Australia and New Zealand.

The New Zealand end of the service—the five kilowatt short-wave telephone-telegraph transmitter installed at the Government radio station, Tinakori Hills, Wellington. Mr. J. R. Smith, officer-in-charge Post and Telegraph Laboratory, is at the switch-board.

Telephone conversation is flung all over the world from the 20-kilowatt A.W.A. station in Pennant Hills, Sydney. Messages to New Zealand will pass through here.



The New Zealand Radio Record

—AND—

Electric Home Journal

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX, 1032, WELLINGTON.

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

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

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

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

WELLINGTON, FRIDAY, DECEMBER 5, 1930.

WIRELESS TELEPHONY WITH AUSTRALIA.

THE opening of the short-wave wireless telephone service with Australia last week marks the inauguration of a service that is certain to be most beneficial to New Zealand. Since April last, Australia has been in the fortunate position of being in direct telephone touch with Great Britain, some twenty-two countries in Europe, the United States of America, the Dominion of Canada, Mexico and Cuba. This service from its inception appealed to the popular imagination, and supplied an outstanding need to the commercial community. It has been largely availed of in addition for political purposes, notably in connection with the recent conversations between the Prime Minister of Australia, Mr. J. H. Scullin, and his lieutenants in the Commonwealth during his absence at the Imperial Conference. Those conversations have duly impressed the significance of the innovation upon the popular imagination, with the result that to-day in Australia wireless telephony is accepted as an ordinary routine service throughout the community. New Zealand has not hitherto had the opportunity of becoming blase on such a subject. Last week's innovation for the first time brought New Zealand up to date in this field, and the opening conversations across the Tasman between banking, commercial and Press leaders, as well as the political heads of the sister Governments, have emphasised the definite need of the link now established. The clarity of the voices as transmitted across the 1200-mile gap was notable, and marks a state of perfection in this field which is extraordinary.

Congratulations are due to the Post and Telegraph Department of the Dominion for their promptitude in effecting this service immediately the efficiency of the service between Australia and Great Britain was established by Amalgamated Wireless (Australasia), Limited. By this link having now been established, New Zealand is placed in direct touch with the majority of the telephones of the world. That is a big statement to make, but it is literally accurate in that from Great Britain direct land-line links are available to the whole of Europe and with the United States, by reason of the Trans-Atlantic Telephone Service. Conversations with the United States from Australia have not been uncommon. Only last week tourists on the "Malolo" spoke from Sydney to their home in Atlantic City. To-day it is possible

for New Zealand to speak with New York. The novelty of this event thrills to-day; to-morrow it is an accepted commonplace.

In recording this advance, tribute is due to the technical and business genius of Mr. E. T. Fisk, managing director of Amalgamated Wireless, Limited. It is only twelve years since Mr. Fisk, in his home in Sydney, received the first direct wireless message from Great Britain—a message from Mr. W. M. Hughes, then Prime Minister of Australia, at the time in Great Britain, and a further message from Sir Joseph Cook, then High Commissioner of the Commonwealth. In the brief intervening space tremendous advances have been made. To-day beam services carry more than half the Press and commercial traffic between Australia and Great Britain. Wireless telephony services are operated with Great Britain and New Zealand. Another with Java will shortly be established. In addition to these overseas activities, numerous coastal services contribute to the everyday efficiency of Australian life, both in the broadcasting and commercial field. The latest achievement focuses attention upon the technical skill that has built up these services, and as we benefit by this development it is fitting that at least passing mention should be made of the talent to which it is due. The treasure of radio is not yet exhausted. Television lies in wait for the future. Of its coming there can be no doubt, and when that day dawns, the wonders of the present will fade before an even greater wonder in the more perfect use of the miracle of electricity.

Nearly Sixty Thousand Licenses

Great Growth in Listeners

THE following figures show the number of listeners in New Zealand at October 31, 1930:—

	Receiving	Dealers'	Transmitting and Receiving and Special	Free.
AUCKLAND	17,536	291	82	98
CANTERBURY	9,707	252	47	55
OTAGO	6,895	172	37	35
WELLINGTON	24,233	483	100	51
	57,871	1,198	266	239

TOTAL: 59,574

Special Broadcast

N.Z. Airman Arrives

THE Christchurch airman, Mr. Oscar Garden, who achieved fame when he put up the third fastest flying time from England to Australia, has been introduced to New Zealand listeners by 2YA and 3YA. His welcome in Wellington was broadcast by 2YA and the aviator also spoke from the studio. His arrival at the Sockburn Aerodrome, Christchurch, which was broadcast, was an event reminiscent of the arrival of Kingsford Smith.

Obituary

WITH the death of Mai Burnes-Loughnan, New Zealand was made the poorer of composers. The wife

of a Christchurch solicitor, Mr. H. H. Loughnan, she was well known in musical circles of that city, and indeed of New Zealand.

Although a good pianiste and always passionately fond of music, her gift as a composer did not disclose itself until the Great War period, which was responsible for the discovery of much local talent. The result, in Mai Burnes-Loughnan's case, was obviously a distinct gain to music. She had to her credit several delightful songs, one of which, "Who has Seen the Wind?" was sung by Dame Clara Butt, who personally congratulated the composer after its performance. Two other songs composed by Mai Burnes-Loughnan to find favour with renowned singers are "Ships that Pass in the Night" and "I Walked a Mile with Pleasure," both of which have been published. On the last "New Zealand Evening" at 3YA one of her songs, "I Gave You a Gift," was sung by Mr. T. D. Williams.

WHY?

Kingsford Smith uses Burgess Batteries. Commander Byrd uses Burgess. More Burgess Batteries are sold in New Zealand than any other make. Why?

BURGESS RADIO BATTERIES



Safer Aviation

Director Asks for Wireless

USING the experience of Mr. Stannage on the Atlantic flight with Kingsford Smith as an example of the value of wireless in aviation, the Director of Air Services, Wing-Commander S. Grant-Dalton spoke at the Wellington Aero Club's dinner on Friday night of possible future developments in this way in New Zealand.

He stated that he had asked the Government, if it were going to give any money to commercial aviation, to spend it on wireless and in night-landing equipment. He hoped to have wireless direction posts as far east and west as possible, for example, New Plymouth and Hastings. The idea was that the machines might fly, despite the weather, and link up the whole of the Dominion.

Use Our Booking Offices in Advance

S-O-S

TRAVEL IN COMFORT BY
CAR

WELLINGTON — PALMERSTON
NEW PLYMOUTH

Relieve
throat
soreness
quickly
with

Pulmonas
PASTILLES

Suck them slowly

1/6 all chemists

Extended Hours and Special Attractions for the Christmas Season

SPECIAL programme arrangements are in train at all the Y.A. stations for the coming Christmas season.

Beginning on Monday, December 15, all stations will be on the air at noon and there will be no silent day. These special sessions will continue until Christmas. The same extended hours were observed last year, and are intended primarily for the benefit of radio dealers in order to give them the opportunity of demonstrating receiving sets for which there is always an extra demand at this time of the year. A radio set makes an ideal gift to the family.

On the programme side an outstanding attraction will be the presentation at 2YA on Tuesday, December 23, of Dickens's "Christmas Carol" by Mr. Clement May, Wellington's well-known actor-elocutionist.

"St. John's Eve"

An Old English Idyll

A DELIGHTFUL musical fantasia of old English country life will be broadcast under the title of "St. John's Eve" from 1YA on December 8. The company presenting the entertainment will be the 1YA Auckland Choir, a band of excellent artists, who will need no introduction to listeners. The solo parts, which contain some of the prettiest selections, have been allotted as follows:—Nancy, a village maiden—Miss Gladys Payne; Robert, a young villager—Mr. Len Barnes; Margaret, an ancient dame—Miss Cathleen Mulqueen; the young Squire—Mr. H. S. Poffley; the organist, Mr. Eric Waters, and the pianist, Mr. Cyril Towsey. Mr. Len Barnes is also the producer.

"St. John's Eve" is an old English idyll by Joseph Bennett, set to music by one of the best known of English composers, Sir Frederick H. Cowen, who, to mark his association with the Melbourne Exhibition of 1888-9 when he conducted the famous choir, inscribed his composition: "To the People of Melbourne, Victoria."

The story of the poem opens on the eve of the Feast of St. John, and a picturesque description is given of the villagers decorating their cottages with flowers and foliage—"for by their night protected, when St. John's Feast is here, no bolt of thunder can harm their dwellings." The village maidens sing of the power of the fairies who bring to them, in their sleep, the image of the man each shall marry. Margaret, in speaking to the village girls, tells them how each might behold her destined husband, but is jeered at for her pains. However, one of the girls, Nancy, believes, and Margaret directs her to pluck a rose and hide it until Christmas Day, when he who takes it from her breast shall be her husband. Robert, a suitor for Nancy's hand, boasts that he will be the favoured owner of the charmed rose when the time comes, but Nancy looks coldly upon him and turns away. We now see the villagers piling the wood for St. John's bonfire, and at midnight the men and lads dance round the flaming pile.

The next scene is the garden of Nancy's cottage, at midnight. She plucks the rose, as suggested by Margaret, and sings the beautiful solo, "O Peaceful Night." She asks the rose to call her lover, and suddenly she hears a voice singing in the distance. It is the voice of the young squire.

It is now Christmas Day in the Squire's hall, where the villagers are gathered. The scene opens with a beautiful carol sung by Margaret, with the villagers joining in the chorus. Nancy enters wearing an unfaded rose, and Robert snatches the rose from her breast, claiming her as his bride. However, Nancy still spurns him, and the young Squire enters, telling how he has already taken the rose and replaced it by another. Robert rushes from the hall pursued by the girls, and the young lovers, Nancy and the Squire, sing their betrothal. The final chorus is a grand paean of praise to God for his wondrous gift of love at Yuletide.

Linked by Telephone

(Continued from page 2.)

ordinary business telephone on his desk. Science was more and more rendering assistance to the ramifications of business.

"The only difference," said Mr. McCutcheon, "in comparing the wireless call with the usual telephone talk was that the voice, though quite loud and clear, appeared to be further away. This did not in any way affect the audibility."

Mrs. Barker, who was present at the Wellington office, spoke to her husband. She said later that it was a delightful experience to be able to hold a conversation over such a long distance. The voice was readily recognisable and surprisingly clear.

During the official proceeding, Mr. McCutcheon, who was present, informed Mr. G. W. Robertson, New Zealand manager of A.W.A., that he had made the first call, and pencilled a note to Mr. Robertson commenting on the remarkable success of the inauguration.

Exchange of News.

ANOTHER quite unexpected incident shortly after 2 o'clock was the first Press talk when the Sydney "Sun" rang up the editorial department of the "Evening Post." The two staffs exchanged greetings, and to put the matter on a footing possibly indicative of the future use of such a service in the newspaper world, a news item was sent in each direction.

Another conversation took place between Oscar Garden and Kingsford Smith. The call was put through and a few minutes later Kingsford Smith was speaking. Mr. Garden, in response to a question from Kingsford Smith, said that he had had a good trip across the Tasman and had met Mr. Stannage, who sent his regards and hoped to be present at the wedding. Kingsford Smith asked for everybody in New Zealand, and replying to a further question as to whether he was going to do another Pacific flight, said that such an item could be "washed out." "I do not know anything about that. You can tell them that the only flight I contemplate is the matrimonial flight."

At the Sydney end a gathering representative of official, professional, and business men met in the offices of Amalgamated Wireless. Mr. J. E. Fenton, Acting Prime Minister, spoke from Canberra and exchanged greetings with Sir Apirana Ngata.

Service Well Patronised.

IT is understood that the service is being well patronised and calls have been received from all over New Zealand. The head of one Wellington business firm told us that he had used the service successfully during the short time it had been available and had found it of the greatest use. It was much more satisfactory than the cablegram, which only presented one side and one point of view. Through the wireless telephone points could be discussed and settled ever so much quicker than by other means. "It is certainly going to save me quite a few trips to Sydney and quite a few misunderstandings," he remarked.

THE new service is expected to have a good run at Christmas time, for it offers an ideal method of exchanging greetings—for those who can afford it.

NOTES and NEWS from the NORTH---by "CALL-UP"

A FAREWELL function was given recently at 1YA for Mr. Owen Pritchard, who has been transferred to Wellington. The 1YA staff presented him with a portable reading lamp, and he received numerous good wishes and regrets at his departure. He was heard for the last time from the local station on Saturday evening, and northern listeners will greatly miss this clever humorist, singer and violinist. His place as programme organiser at 1YA is being taken by Mr. H. C. Trim, who has held a similar position at 2YA for the past few years. Mr. Trim can be assured of a warm welcome when he arrives in the Queen City.

AN exceptional number of race relays will be given from 1YA during the next two or three weeks. There will be broadcasts on four days of the gallops at Ellerslie in Christmas week, and three days trotting. As usual Mr. Gordon Hutter will be at the microphone.

THE ceremony of opening the new Auckland railway station which was relayed from 1YA on Monday was most interesting, and the speeches came through with wonderful clarity. A

relay such as this is always welcome in the afternoon, as the daytime programmes are apt to have a certain monotony, being almost wholly made up of gramophone records. Although the records are good and varied, any little innovation is particularly appreciated by those who are in the habit of listening during daylight, and it is surprising how many sets are on between three o'clock and five.

THE radio telephone service between New Zealand and Australia had a successful inauguration so far as Auckland was concerned. On November 25 one call was put through from an Auckland resident to a Sydney friend, and there were three calls from Sydney to Auckland. All the conversations were short, but the transmission and reception were reported to be most successful. One supposes that it is only a matter of time before we can ring up any part of the world from a street telephone box—if we put a five-pound note instead of a penny in the slot!

A FEW months ago it was rumoured that the New Zealand Government contemplated a scheme for broadcast

instruction to the primary schools throughout the Dominion. The precarious position of State finances, however, no doubt precluded serious consideration of such a proposal. A suggestion mentioned to "Call-Up" was that the various school committees could organise entertainments to purchase receiving sets and erect aerials for their schools, and the Government could organise the instructional broadcasts from the "YA" stations.

A Youthful Combination

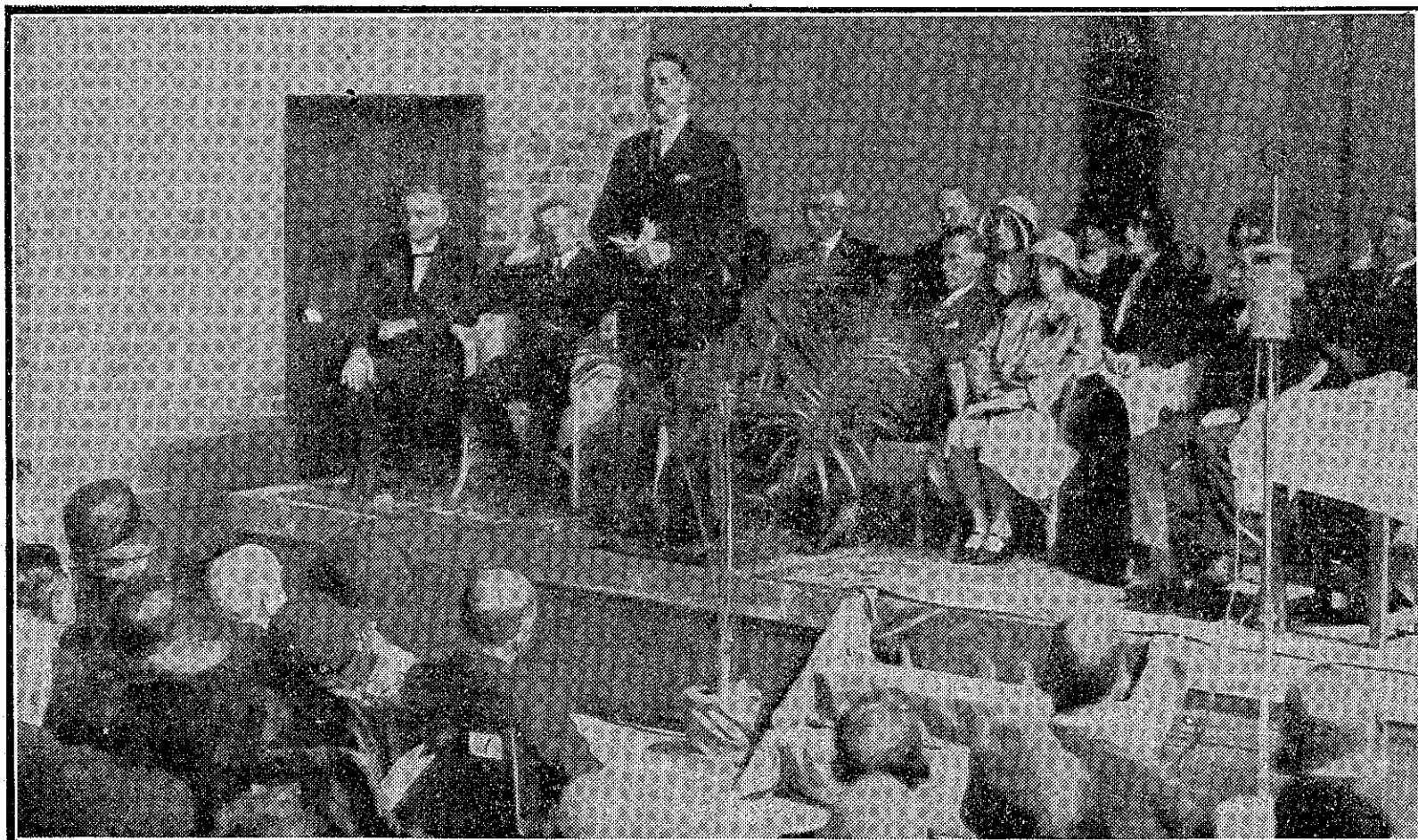
To Play from 1YA

THE Ponsonby Boys' Brass Band, which is to play from 1YA on December 10, belongs to an organisation well known in many parts of New Zealand, for every year a full band of thirty-two players tours some part of the Dominion. The band has previously been heard from 1YA, but

only two of the thirty-two boys to be heard on Wednesday next were among those who played on the former occasion. Thus to all intents and purposes it is a new band.

The band was formed fourteen years ago with the idea of giving a musical training to boys whose parents could not otherwise afford it, and it was the first boys' brass band in New Zealand or, it is believed, in Australia. Their example has since been followed in at least six other New Zealand towns. The boys are taken in at the age of nine or ten, and after three or four years' training are placed in the "A" band. When eighteen or nineteen, they are placed in one of the senior Auckland bands or given a clearance. Since activities commenced, two hundred bandsmen have been trained, and many of these are now in leading bands and orchestras in different parts of New Zealand and Australia. The present strength is 65 players, 30 recruits, and two conductors.

The band receives no subsidy, and all its officials are honorary. It works for what it earns, but is always willing to help a worthy cause. It plays regularly at the Public Hospital, asylums, Costley Home, and the Veterans' Home.



The official opening of Auckland's new railway station. The microphone, by means of which the proceedings were broadcast, may be seen on the right of the photograph. The Hon. W. A. Veitch, Minister of Railways, who declared the new station open for traffic, is seated at the right of the front row. Mr. M. J. Savage, M.P., is seated on the extreme left. Next to him is the Hon. A. J. Murdoch, Minister of Agriculture; then the Rt. Hon. J. G. Coates, Leader of the Opposition, who was addressing the gathering when this picture was taken. Mrs. G. Baildon, Mayoress of Auckland, is seated next to Mr. Veitch. Mr. G. Baildon, Mayor of Auckland, and Mrs. Veitch, are also in the front row, but are not in the picture.

A New Radio Thrill for New Zealand

By A. J. Heighway

EDITOR, "RADIO RECORD."

WHAT a thrill this is, A.J." These words, spoken in a beautiful Wellington home, shortly after eight o'clock on Tuesday, November 25, and heard instantaneously in a Sydney residence by the writer, marked the opening of one of the first wireless telephone conversations across the Tasman. More than that, they convey the wonder of the achievement that science has now made possible—regular every day commercial telephone conversation between New Zealand and Australia, and, through the A.W.A. beam telephone service, even beyond her borders, with Great Britain, twenty-two countries of Europe, the United States, Canada and Cuba and Mexico. For that is the service that is now available to anyone in New Zealand, who has a telephone and necessary occasion for world-wide telephony. "What a thrill," indeed!

This service now brought to New Zealand has been available in Australia since April last, when the short-wave commercial telephone service was opened between Australia and Great Britain. The success of that service was so outstanding in its commercial utility that the New Zealand Postmaster-General, the late Sir Joseph Ward, immediately put in hand arrangements for the provision of a similar service with the Dominion.

Amazing Incidents.

WITH that blasé acceptance of the unusual that is now forced upon humanity by the rapidity of scientific advancement, the feat of talking half round the world is now a commonplace of commerce. But the citation of a few incidents may show the scope and elasticity of the service. A Swiss farmer resident in Northern Queensland, 400 miles from Rockhampton, desired to speak to his family friends in Switzerland. He put in his call. Connection was established by land-line to Sydney, thence from the transmitting station at Pennant Hills direct to London. There land lines to the Continent were called upon, conversation established with Lausanne and two-way conversation carried on with perfect ease. Again, when the Malolo, the American luxury tourer, was in Sydney, her telephone system was connected up with the Sydney service and from their own cabin, two wealthy girls spoke to their home-circle in Atlantic City, their voices being carried across the Atlantic by the now fully-used Atlantic telephony channels between London and New York. In the recent political crisis affecting Australia, the Prime Minister, Mr. Scullin, absent in England, has been able to keep in touch with home developments from day to day by telephone. On one occasion the limited between Sydney and Melbourne was stopped at 2 o'clock in the morning to drag from his sleeper Mr. Fenton, the Acting Prime Minister, to speak from an isolated country station with his chief in London. These are some of the things that have been done and are being done day by day in the ordinary course of commerce. Wonderful, certainly, but just accepted in a day as

part of the service due to humanity. Now our turn has come and New Zealand is linked with the world. Because of our past relative isolation the novelty will strike home the more and be the more keenly appreciated, but soon the novelty will pass and routine acceptance will take its place.

Of Men and Means.

STILL, while the novelty lasts, while we can still say "what a thrill" and respond to the joy of friendly voices across the Tasman, it will be interesting to chat about the men and means by which this work has been done. Writing here on the Maunganui on Saturday afternoon as she ploughs steadily back to New Zealand over a sunlit sea, the Morse is sparkling quietly in the wire-

less room outside, a fitting background to the radio picture I am endeavouring to piece together. I have been much with radio in the past month, and have taken every opportunity of visiting the radio centres and stations carrying out the splendid services inaugurated by Amalgamated Wireless (Australasia), Ltd. In Victoria, through the courtesy of Mr. J. L. Mulholland, I was motored to Ballan, 56 miles from Melbourne, to see the beam transmitting station working London and Montreal; to Rockbank, nearer the city, where the incoming messages are received; to Braybrook, where 3LO and numerous other broadcasting services are put on the air. In Sydney, by courtesy of the management and under the tutelage of a guide, who judiciously and capably

combined hospitality with instruction, I saw the La Perouse receiving station, picturesquely overlooking Botany Bay, the factory at Ashfield, and finally, twenty-five miles apart from La Perouse, the transmitting centre of Pennant Hills.

Now for a little of the ways and means of this magic of wireless service. Looking back, the most vivid impression is how much is done with how little. Here is a service which is even now handling over half of all Press and commercial cable matter between Britain and Australia, and this is what happens. Into a small office in Collins Street, Melbourne, you drop your message for London. Checked and paid for, it is flashed by pneumatic tube to Wireless House, Queen Street. There an operator nonchalantly taps it out on a machine which punches Morse signals in a half-inch tape. That tape is fed immediately into a small machine about six inches long by four in diameter, and, presto, it is on its way at the rate of 1250 letters per minute—first by direct land-line to Ballan, thence automatically on the air to London. There it is automatically received and recorded in Morse on a quarter-inch ribbon. This ribbon, streaming forth from the receiver, can be interpreted either by an operator and the message hand-typed, or, most marvellous of all, it can be fed into another machine which converts the inscribed Morse into English and delivers the message actually typed on ribbon, leaving to human hands the task only of cutting and pasting that ribbon on to the delivery form for dispatch to the recipient. And all this is done at incredible speed—so quickly indeed that an average time from receipt of a message in Collins Street to delivery in complete form in London is about three minutes! This account shows how automatic the whole process is. One quiet little room in Queen Street, with a few operators; one impressive power-room at Ballan with a transmitting room attached; two huge sending aerials stretching over 1200 feet in length between 400-foot masts; two or three engineers moving casually about—and that is all! To an old newspaper man familiar with the batteries of operators necessary for manual transmission by Morse the thing is extraordinary, quite uncanny. Plainly the cable, with its tremendous outlay and cost of upkeep, is doomed for distance work. The ether does not wear out. Cables do, and as they do, they will not be replaced except in special instances.

How Works the Beam?

AND how does the beam work? Two things of interest struck me. First, there is the beam itself and secondly, the messages sent along it. Now the beam is harnessed and controlled in this way. Imagine a stone thrown into a pond. Its circles widen and spread in all directions until the energy is diffused and dies. To prevent that diffusion of energy from the originating point Marconi devised the beam aerial. He reasoned that if he established a number of sending points at

Handel's Oratorio



"The Messiah"

will be presented on December 7

by

The Lower Hutt

Methodist Church Choir

with accompaniment on the Grand Organ and by an Orchestra of Thirty Instrumentalists

Soloists:

Soprano: Miss Christina Ormiston. Contralto: Mrs. Wilfred Andrews. Tenor: Mr. G. Austin Blackie. Baritone: Mr. R.R. Orr.

Organist: Mr. C. R. Horman

Conductor: Mr. Ernest Dawson

right angles to the point he wished to reach, the side circles would cancel out one another. Thus, imagine this row of dots to represent sending aerials.

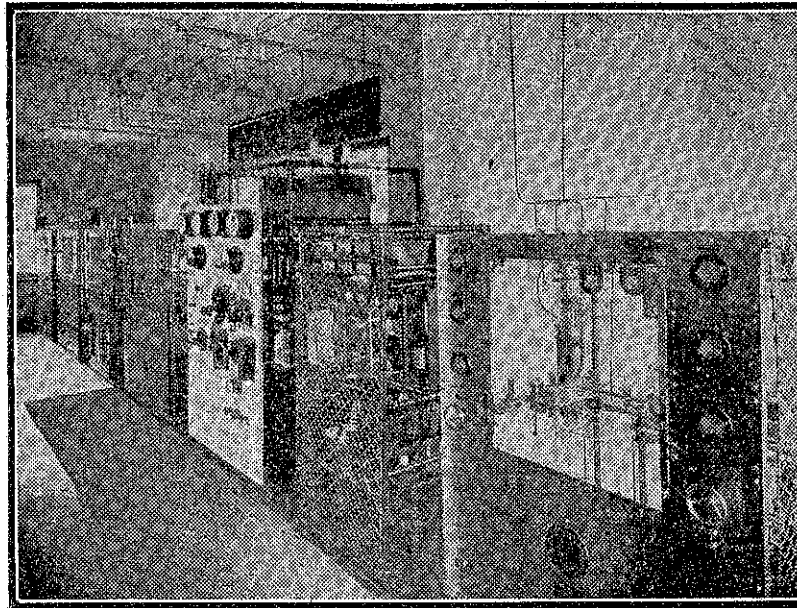
Now the side circles of all those points (except the end ones) would be cancelled out by their neighbours, and the energy permitted full expansion only forward and backward. But the leakage to the rear represented a dead waste, so a screen of identically similar aerials was erected at the back at a certain distance, thus reflecting the energy forward in a definite beam, capable of reaching the object station the other side of the world. That is the mathematical theory of the beam.

By another clever thought the up-right aerials are divided into three, one above the other with the object of giving the beam long-low-angled hops against the Heaviside layer, and so avoiding losing energy by minimising the number of rebounds to reach the other side of the world. So the beam or carrier wave connection is established. But this wave travels best in darkness, and that means that if only one way round the world was used, the time available for transmission would be limited. So two-way traffic is provided for by duplicate aerials through which the beam is switched the long or the short way round the world as occasion requires. The short way is north-west over Australia, over India and direct to Britain. The long way is over the South Pole and Home over the Atlantic. By this means contact can be maintained practically continuously.

BUT the engineers have not been content with providing the beam. They have sought to make that beam work to maximum capacity. So they have succeeded in getting three channels of communication on one beam—simply by varying the rates of frequency of the sending apparatus. So far this has given them two channels for wireless telegraphy and one for telephony.

Credit to Whom it is Due.

IMPROVED almost beyond words by the wonders of the A.W.A. services—services operating not only to England, but over the Australian coastal area in connection with trawling fleets and cargo steamers, and to all the scattered isles of the Pacific—I finally sought Mr. E. T. Fisk, the managing director of this organisation which, originated seventeen years ago, has grown to employ over 1000 men and advantageously operate a million pounds of invested capital, half being found by the Commonwealth Government. Mr. Fisk is the presiding genius of the organisation. His physiognomy is most extraordinary and he at once impresses by his personality and, in conversation, quiet efficiency and wide vision of the future. He is noted in his own circle for his great-hearted-



This is some of the transmitting gear associated with the Pennant Hills transmitter. It handles the outgoing speech from the individual telephone lines.

ness and courage. Deservedly so. He has conquered technical and business difficulties deemed insuperable. Highly qualified technically he has been fortunate in adding to that equipment a business vision and business capacity quite universal in the technician. To that combination and to his genius for selecting capable associates and loyalty in standing by them he owes the position occupied by his organisation today.

SO while the official opening of the New Zealand short-wave telephone service is proceeding, and one after another of the prominent business, political and press leaders invited to the board room of Amalgamated Wireless are waiting their opportunity to speak to confreres in New Zealand on this memorable day, I seek the views of Mr. Fisk upon the future.

"What more is there to do?" I ask, "there seems little that is left. What will be the developments of the future?"

"The immediate development will simply be the extension of the present work of direct wireless services to various parts of the world," says Mr. Fisk. "I think the telegraph services may be regarded as an omnibus which carries everybody's communications in bulk. The telephone is more of the nature of a taxi-cab which carries the individual from point to point. The wireless telegraph which is already operated at very high speed and which will be established to work as many countries direct as possible, will always handle the many millions of words which have to be sent throughout each year. The wireless telephone, on the other hand, will link the home and office telephones of New Zealand and Australia with the home and office telephones of all other parts of the world. We are already approaching the point where the private telephones of Australia and New Zealand can be connected with 90 per cent. of the telephones of the rest of the world. We now reach Great Britain, twenty-two countries in Europe, the United States and Canada, Mexico and Cuba—how many telephones they represent, I simply do not know."

"Is the wireless telephone secret?"

"Not in the absolute sense, but we regard it as secret for all ordinary purposes. On some services we can invert the language in transmission, and re-collate before the receiver is reached, but that is not done on all services. With the developments that are going on secrecy may speedily be applied to all. The cost of the services will tend to be reduced as time goes on. At present while wireless telegraphy can work over long distances for the greater part of the twenty-two hours, wireless telephony is possible only for five to nine hours out of the twenty-four, but that will be extended as we make new developments, and as the earning power is extended so costs will drop.

Pictures and Television.

"THEN the next thing to be done in a big commercial way is the transmission of pictures and facsimiles. This is waiting to be done. In part it is already being done, but further development must be made before very much greater use is made of it. However, the job is there.

"Another big thing that will develop is world-wide broadcasting. With the use now being made of world-wide telephony and the improvements that are in sight we can look forward to the time when all our local broadcasting services will be supplied regularly with special features from big world centres such as London, Paris and New York, and so on, on short-wave and picked up and rebroadcast. Some form of beam transmission will probably be used for this work.

The transmission of programmes between Australia and New Zealand should now be possible, and would be a distinct novelty and service.

"Of course, everybody is looking for wireless television, but I think it will be some years before we see it in any practical form. It will come all right, but there is a lot to do. An ordinary picture takes from five to twenty minutes to transmit. To secure television of moving pictures you have to transmit one picture in one-twelfth of a second so that there is a tremendous amount of work to be done.

Cannot See the End!

"AND I don't think it will stop there," declared Mr. Fisk. "As we attain that, we will find other things to be done. We are dealing with electricity which is a very flexible form of energy. The ether also is a very flexible thing so that on the one hand you have the unlimited possibilities of electricity, and on the other the unlimited potentialities connected with the ether. What the ultimate developments will be are largely a matter of technical science and engineering as to what we want to do and how far we can learn how to do it."

Then, interruption!—

"Mr. Heighway, you have a call in for Wellington. Stand by!"

"Are you there? Heighway here!"

"What a thrill this is, A.J. Your voice is wonderfully clear."

"So is yours. I received your letter this morning and will be glad to dine with you next Monday evening!"

And so on. Wireless telephony is here. The Tasman is bridged. We in New Zealand can now speak to the world. It IS a thrill, isn't it?

And there is the bugle call for dinner. My hand is tired. But as the shades of evening fall there comes in from the East the voice of 2YA and from the west, the call of 2FC. Radio—Radio—the wonder of it!

Programme Organisers

MR. H. C. TRIM and Mr. Owen Pritchard, programme organisers at the Wellington and Auckland broadcasting stations respectively, have exchanged positions, and each commenced his new duties last Monday.

Mr. Trim, who has been catering for listeners' tastes at 2YA almost since that station's inception, has proved himself very efficient in a position which constantly demands unlimited tact and organising ability. He was very popular, both among his fellow officials and with artists. Few people realise the difficulty of organising programmes satisfactorily—the uncertainty of securing artists for a definite appointment being an unenvied task. However, as listeners may judge by the past programmes from 2YA, Mr. Trim's unceasing efforts have met with definite success. Prior to his departure for Auckland, Mr. Trim was made the recipient of a presentation by Mr. Davies, the station director, on behalf of the staff.



MR. OWEN PRITCHARD has been programme organiser at 1YA since toward the end of last year, when his predecessor, Mr. Dudley Wrathall, was transferred to 4YA, Dunedin. He has had an extensive and varied theatrical experience, being in his time acrobat, singer, violinist, comedian, actor, orchestral leader, producer, and broadcasting artist. He frequently appeared before the microphone at 1YA in humorous and serious roles, while his flair for "finding" artists and arranging programmes has been reflected in the high standard of entertainment broadcast by 1YA.

SEE THE WORLD

ASA WIRELESS OPERATOR

Earn Good MONEY

It takes only a short period of easy study to qualify as a wireless operator. For full particulars

JOHNSON'S WIRELESS SCHOOL

Brandon Street, WELLINGTON.

The Electric Gramophone

Some important considerations concerning selection and wear



THIS last year or so we have heard a great deal about the radio and gramophone combination, and it now appears that these two industries are rapidly merging into one. The quality of reproduction from records now possible is so very near natural that the electric reproducer must become very popular.

We all remember a few years ago when gramophones first came on the market. They were small, and the tone, at least in the extremes of the musical scale, was very thin and unnatural, and yet it was all very wonderful. We all know that it was Edison who introduced the first gramophone, and I want to quote to you Edison's account of the discovery.

"I was experimenting on an automatic method of recording telegraph messages on a disc of paper laid on a revolving platen, exactly the same as the disc talking-machine of to-day. The platen had a spiral groove on its surface, like the disc. Over this was placed a circular disc of paper; an electro-magnet, with the embossing point connected to an arm which travelled over the disc; and any signals given through the magnets were embossed on the disc of paper.

"If this disc was removed from the machine and put on a similar machine provided with a contact point, the embossed record would cause the signals to be repeated into another wire. The ordinary speed of telegraphic signals is thirty-five to forty words a minute; but with this machine several hundred words were possible.

"From my experiments on the telephone, I knew of the power of a diaphragm to take up sound vibrations, as I made a little toy which, when you recited loudly in the funnel, would work a pawl connected to the diaphragm, and this engaging a ratchet wheel, served to give continuous rotation to a pulley. This pulley was connected by a cord to a little paper toy representing a man sawing wood. Hence, if one shouted "Mary had a little lamb," et cetera, the paper man would start sawing wood. I reached the conclusion that if I could record the movements of the diaphragm properly, I could cause such record to reproduce the original movements imparted to the diaphragm by the voice, and thus succeed in recording and reproducing the human voice.

"Instead of using a disc, I designed a little machine, using a cylinder provided with grooves around the surface.

Over this was to be placed tinfoil, which easily received and recorded the movements of the diaphragm. A sketch was made and the piecework price, eighteen dollars, was marked on the sketch. I was in the habit of marking the price I would pay on each sketch. If the workman lost, I would pay his regular wages; if he made more than the wages, he kept it.

"The workman who got the sketch was John Kruesi. I didn't have much faith that it would work, expecting that I might possibly hear a word or so that would give hope of a future for the idea. Kruesi, when he had nearly finished it, asked what it was for. I told him that I was going to record talking, and then have the

machine talk back. He thought it absurd.

"However, it was finished, the foil was put on; I then shouted "Mary had a little lamb," et cetera. I adjusted the reproducer and the machine reproduced it perfectly. I was never so taken aback in my life. Everybody was astonished. I was always afraid of things that worked the first time. Long experience proved that there were great drawbacks found generally before they could be got commercial; but here was something there could be no doubt of."

That was the beginning of the gramophone, and since then gradually improved until we had the instrument of a year or two back, but the intro-

A talk
broadcast from 2YA
by
COLIN W. SMITH, B.A.

duction of radio changed everything and since the combination of the two instruments both have gone ahead very rapidly.

Making Sound Solid.

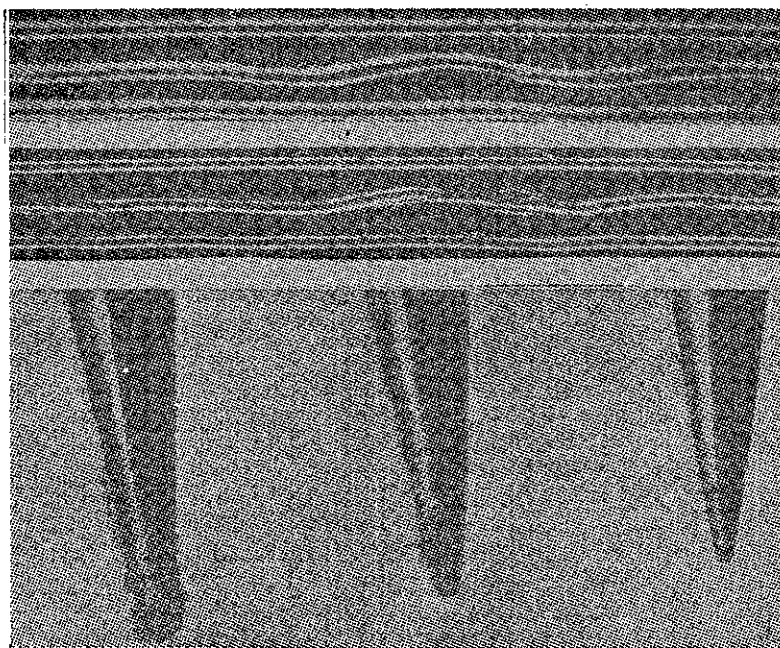
LET us for a moment examine the method in which sounds are made solid. You will remember in my second talk I told you how the microphone picked up the minute vibrations in the air and transformed them into electricity. A microphone is used in the production of gramophone records and in the sound recordings for the talkies. The sounds are picked up, transferred to electricity, and then an instrument that may be regarded as the opposite of the pick-up is used to transform the electric vibrations back to mechanical vibrations which cut the grooves of the record. For best results a triangular needle must be used, and if we could use such a needle in reproducing our results would be much better, but we cannot because they would cut the records too deeply.

When a deep note is registered the impression in the groove being cut, swings widely, and when a high note comes through the impressions are small and close together.

Now this is important, and later on I shall come back to this point for you will realise that these wide notes caused by the bass will have a definite limit, because the grooves must be kept fairly close together. Furthermore, it will be apparent that it is going to be difficult for a needle to reproduce the fine variations caused by the high notes. We shall not pause to consider how records are commercially made from this original record, but pass on to consider the more useful points in gramophone reproduction.

REPRODUCTION is the exact opposite to recording. A needle moves in the grooves, and if the proper speed is attained, the impressions cause the needle to vibrate in the groove at the same rate as did the waves in the air when sound was made. Now if the needle is attached to a diaphragm the vibrations will be transferred to it, and so to the air, and we hear them. This is how the earlier gramophones worked. A horn was used to somewhat magnify the sounds.

Nowadays, the needle moves between two electric magnets, and causes an electric current to flow in the fine wire round these magnets. This current, of course, will vary in



The top illustration shows a section of undamaged record. The large curves are bass notes. The centre portion illustrates the way grooves can be damaged by thick needles. The effect of this wearing process, and the dust collected from the record, is shown on the needles.

proportion to the movement of the needle in the groove. This feeble electric current is magnified by the audio stages of our receiver.

The Wear of Records.

FOR a few moments we will consider the important aspect of wear. The variations in the grooves are made upon their sides, not from the bottom, and so the first requisite of the needle is that it fits right down in the groove and can move freely from side to side. If it is stiff or whips it is bound to damage the fine variations in the groove. Actually there is a pressure of over 40,000lb. per square inch on your record, so you can see that if the point is not fine and thin something is going to be damaged and the chances are that it will be the grooves of the record.

There must be nothing to hinder the side-to-side movement of the needle, and this is where the old style of reproducer failed.

Attached to the needle you will remember is a diaphragm which takes quite a considerable amount of energy to move it. It has neither the plasticity to respond to the deep notes nor the fineness to respond to the upper notes. It consequently missed them.

Our needle, then, must be fine enough to respond to the high frequencies, hard enough not to whip and tough enough not to wear rapidly.

Measurements have shown us that a worn needle not only damages the groove, but actually reproduces less signal than an unused one. Only the other week I evolved a very interesting set of figures bearing out this fact. Furthermore, a used or blunt needle, which cannot fit down into the groove,

is very likely to cross where two bass notes are in adjacent grooves. If you examine a record you will see some of the grooves have a very big swing, and if you notice the space between these lines you will see how very narrow it really is. You will remember we mentioned this point a few moments ago when we were speaking of the manufacture of the records. At these narrow places a blunt or whipping needle will break through very easily, and you will get the familiar repetition of a bar or so.

Our perfect needle, then, must have a very fine point, and of the commercial types probably the spear point is the best. The soft is also good, but some of these are made very thin, and are inclined to whip. The medium is, considering everything, the best type of needle to use. If you want to play safe and stand no chance of damaging your records, use the fibre needle. They will positively not harm the records, but they will not reproduce as loudly, nor will they bring in the high notes as well as do the steel needles. Nevertheless they are very good, and certainly must be recommended where wear is excessive. If they will not fit your pickup the shanks may be trimmed, but do not interfere with the point. It may, of course, be resharpened when it becomes dull.

Types of Pickups.

SO much for the needles. Let us examine a few of the types of pickups. Of paramount importance in selecting one of these instruments is its construction. It must be robust and yet all the joints must work perfectly. The pickup head should weigh little more than 5oz., and preferably should be hinged on a more rigid type

of arm. Usually pickups, the heads of which are tightly connected with the arm, are hard on records.

Another type of pickup is the one with the bent arm, and these minimise wear more so than any other type. Technically speaking, they can track to within 3 degrees of a constant tangent. These are not hinged in the usual way, but there is no necessity for them to be so.

Quite worth noting in considering one of these pickups that tip back is that the head should be capable of staying in a backward position. You will find it very handy.

In selecting a pickup for tone, see that it is connected with a good ampli-



The moral in this picture is "Don't use rusted needles." Think of the little grooves in the other illustration.

fier, such as the Loftin-White or a modern push-pull arrangement, then listen for notes at both ends of the scale.

Do not let a heavy bass reproduction influence you in buying. Before long you will become very tired of it and wish for the clearer and purer reproduction brought about by a really good pickup.

But the bass must be there and the pickup should be able to go down into the deeper registers like those in an organ solo without any difficulty and without distortion. It must be able to bring through such instruments as the violin, flute, and piccolo, and reserve the characteristic overtones, that is to say, you must be able to recognise a flute when it is playing and realise that it is not a piccolo.

Most first-grade pickups will do this, but as a deciding point, listen for the separation of the notes. Many good pickups will not separate one instrument from another but run all notes together—"garbled," as we speak of them. You must be able to hear the individual instrument without any difficulty. Of course this statement is relative, and I do not mean to suggest that at a band fortissimo you can pick that the cornet is a quarter of a note out of tune.

We have now covered the main points in electric reproduction and the selection of needles and pickup. There are many points I have not had time to dwell upon and if there are any further points that occur that any listener especially wishes to have explained, a letter to me will have the desired effect.

KNOW the time all over the world with a
DX Clock.

Printed on Heavy White Paper.
Price 9d.

Australian Programmes

Times Corrected for N.Z.

Thursday, December 4.

STATION 2FC, 10 p.m.—"The Green Goddess," a four-act play.
2BL—10.21 p.m. and 11.18 p.m.—The "Evening Stars" present Hawaiian Melodies; 10.46 p.m., 11.33 p.m., and 12.7 p.m., the Sydney Male Choir.
3LO—10 p.m., "Tunin and Hearem." 10.30 p.m., Dance numbers, interspersed with vaudeville items.
3AR—10 p.m., Relay from 2FC Sydney.

Friday, December 5.

STATION 2FC—10 p.m., 10.21 p.m., and 11 p.m., Selection by the Railways Band. 11.22 p.m. and 12.6 p.m., Baritone Solos.
2BL—10.7 p.m. and 10.56 p.m., Franco Izal, the Spanish baritone. 10.15 p.m., Violin solos. 10.31 p.m., 11.3 p.m. and 11.50 p.m., Organ solos.
3LO—10 p.m., "Melody Memories." 10.30 p.m., Chamber music. 11.15 p.m., Brass band recital.
3AR—10.15 p.m., Community singing from the Ballarat Town Hall.

Saturday, December 6.

STATION 2FC—10 p.m., From the Conservatorium of Music, the final concert of the 1930 series.
2BL—10.15 p.m. and 11.45 p.m., Novelty instrumental numbers. 10.30 p.m., Description of boxing contest from the Sydney Stadium. 11.50 p.m., Description of races from Wentworth Speedway.
3LO—10 p.m., The "Cure-for-the-Blues" Revue Company present "Vaudeville Cameos." 11.15 p.m., Military band concert.
3AR—10 p.m., Brass band and novelty items, interspersed with commentaries by Mel Morris on the dirt-track motor-cycling events.

Sunday, December 7.

STATION 3LO—10.30 p.m., Piano-forte recital of five Chopin preludes. 11 p.m., "By the Fireside."
3AR—9.0 p.m., Divine service from St. Paul's Cathedral, Melbourne. 10.30 p.m., Classical programme.

Monday, December 8.

STATION 3LO—10 p.m., Old-time musical items and choruses.
3AR—10 p.m., "Man and Superman," a comedy by G. Bernard Shaw.

Tuesday, December 9.

STATION 3LO—10 p.m., Selection of the most popular works of Albert Ketelbey. 11 p.m., Recital for two pianos.
3AR—10.15 p.m., Choral music by the Melbourne Philharmonic Society. 10.45, Dance music and variety.

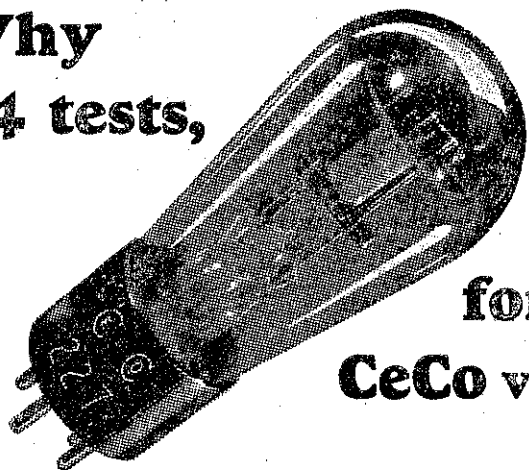
Wednesday, December 10.

STATION 3LO—10 p.m., Chamber music. 11 p.m., Studio presentation of the opera, "Ma Mie Rosette."
3AR—10.15 p.m., Brass band concert. 11.10 p.m., Comedy interlude.

HAVE you renewed your subscription to the—
"Radio Record and Electric Home Journal"?

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

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 "U"
Bond & Bond Ltd., P.O. Box 331, Auckland.

G.2-Q.P.

THE a.c. short-wave set is creeping into popularity in New Zealand. The adapter type seems to be giving place to the superheterodyne set which is placed between the aerial and the ordinary broadcast receiver. This enables tremendous amplification to be obtained, and "Switch" recently saw this system operated most successfully, and without any difficulty.

BECAUSE of the new beam aerial which has been installed at PCJ, Holland, the transmissions heard on Thursday, Friday and Saturday, which are primarily intended for Australia and New Zealand and surrounding territory, should be heard with increased strength. In Eastern Australia, however, signals are weaker than formerly, and it appears as though the path of the focussed signals is not correctly directed. What effect, if any, have New Zealand short-wave listeners noticed in the signals from PCJ?

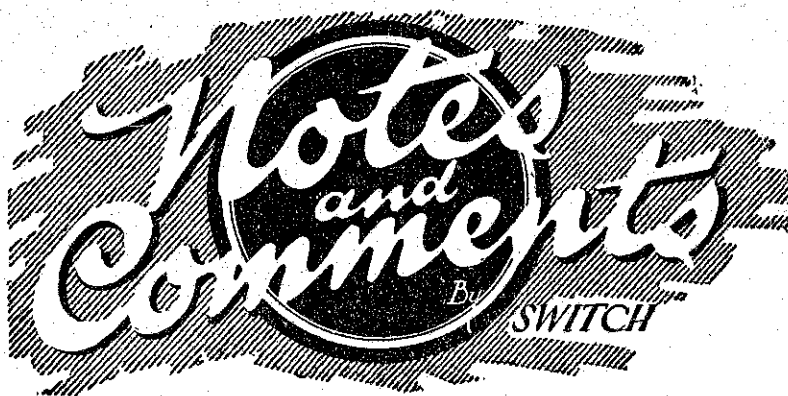
AFTER a lengthy attack of static, which rendered long-distance reception unpleasant, the atmosphere cleared toward the end of last week and the overseas stations were available for entertainment. On some evenings lately, after 10.45 p.m., the Japanese station JOHK has been louder than any of the Australian stations. 2FC, Sydney, has performed indifferently on relay on several occasions. There appears to be trouble on relay lines.

NEW ZEALAND shortwave listeners will soon hear from the Australian beam station some mysterious short-wave splutterings which may seem like a Morse transmitter out of control. The noise will emanate from the Marconi facsimile apparatus for the regular transmission of still pictures from Australia to England. The apparatus is to be installed at each end of the beam service.

A MELBOURNE writer says: "During the past two or three years dance music has progressed rapidly, until now the blare and wall of the early jazz bands seems a thing of the very distant past—fortunately. When jazz was first thrust upon the public the ambition of every dance band seemed to be to make as much discordant row as possible. . . ." Well, "Switch" would welcome the appearance of this reformation, but has not been able to detect any tendency in that direction, even when listening to the jazz band items broadcast from Melbourne.

THE B class station which is being erected in Wellington will not employ 500 watts power as was first intended. The proprietors have decided to use only low power, and the transmitter is being built locally by two amateurs who have an excellent reputation for technical skill.

THE surf clubs around Wellington would add considerably to the public enjoyment of carnivals if they used powerful a.c. sets on such occasions and put on the Saturday afternoon programmes from 2YA, Wellington. A



Melbourne visitor informs "Switch" that at Frankston beach, a few miles from Melbourne, there is a powerful amplifier which is audible at a distance of over a mile. Programmes and announcements are heard by crowds spread far along the beach.

A STATION which has lately improved out of all recognition, as heard by "Switch," is 2HD, Newcastle. The transmitter has completely lost its former huskiness. Owing to its wavelength being extremely short, 2HD gen-

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	10
4QG, Brisbane	8
2GB, Sydney	7½
3LO, Melbourne	7
3AR, Melbourne	5
2UE, Sydney	4½
3UZ, Melbourne	3½
3DB, Melbourne	3½
7ZL, Hobart	3
5CL, Adelaide	3
6WF, Perth	1½
2KY, Sydney	1½

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

erally has an accompaniment of peppy static, which rather detracts from the fullest enjoyment of the programmes.

AN Australian listener condemns the quality of the Australian broadcast programmes as follows:—

"After discontinuing listening for five years, I recently bought a new electric set, and was amazed to note the advance which radio engineers have made in the tonal quality of receivers. But, unfortunately, I cannot express the same appreciation about the broadcast programmes. They have improved to some extent, of course, but in my opinion the artists have not kept pace with the engineers."

LISTENERS have often remarked to "Switch" that static is much less obtrusive on the longer wavelengths,

in the vicinity of those of 2YA, Wellington, 2FC, Sydney, 3AR, Melbourne, and the Wanganui B class stations. An Australian listener has written to the Press urging that the more attractive programmes of 3LO, Melbourne, should be broadcast by 3AR, Melbourne, which is on a much longer and less static-infested wavelength. He states that on the night after the Melbourne Cup 3LO came in with a battery of static, while 3AR had only an unobtrusive background of noise. "Switch" consistently experiences far more noise on the shorter wavelengths.

THE desirability of using a power-valve in the last audio stage formed the subject of an argument between two Wellingtonians who are building their own sets. "A," who urged that a power-valve is practically indispensable, referred the matter to "Switch," as arbiter. "B" contended that an ordinary valve would accomplish all that was desirable for enjoyment of good tone and volume. "Switch" decided in favour of the power-valve. An ordinary valve will produce adequate volume for the average room, but it will not give quality because it must be operated too close to its peak loading. A power-valve insures quality under all normal conditions.

CHRISTMAS is now in sight, and radio traders are preparing for the gift season when fond parents purchase wireless sets for their children, or for the entertainment of the whole family. One Wellington trader informed "Switch" that he is going to make a special window display on lines shown in an American radio trade journal.

SENATOR MARCONI recently conducted successful experiments with automatic radio telephony from his yacht "Elettra" at Genoa. He will shortly make large scale tests by connecting the telephone systems between Rome and Cagliari by two powerful radio stations, thus enabling a person in Rome to ring up a number at Cagliari, 250 miles away. The impulses will be transmitted on short-wave, and once the connection is established the conversation will be carried on in the usual way. It will be entirely secret, as the system is based on the super-imposition of wireless waves, which can be intercepted, though not understood without special apparatus.

Laboratory Jottings

Marconiphone Pickup

THOSE who want a pickup that is medium in price, light on records and yet which reproduces well will be interested in the new Marconiphone instrument, for which A.W.A. are the New Zealand wholesalers. This instrument has the bent tone-arm, the principle of which was described in these columns some months back. By utilising this shape the track angle error is reduced to 3 degrees, with the consequence that there is a minimum of wear. While on test it was found that the friction between record and needle was much less than the standard, and without any trouble it tracked over grooves representing a note of 42 cycles a second. This is unusual. Furthermore the head, which is swivelled on the tone-arm, is light and the tone-arm counterbalanced. Further evidence that the instrument is constructed to wear records at a minimum rate is provided by the movement of the needle in the armature, which is far greater than normal.

The voltage output (1½ volts R.M.S.) is high, with the result that strong signals can be had with an average set of, say, two valves. Its output is about equal to that of high-grade instruments.

The tone is good, and giving emphasis to the bass notes is excellent for amplifiers that tend to clip this end of the scale. One measured bass reproduction took us down to 40 cycles, there being practically equal amplification between here and 4000 cycles. After this there is a decline until at about 5000 there is a sharp cut off. Thus the instrument tends to emphasise the bass without unduly thinning down the treble, and scratch cannot come through to any extent. There is an absence of peaks, and amplification is equal between the points mentioned.

KNOW the time all over the world with a

DX Clock.

Printed on Heavy White Paper,
Posted in Cardboard Tube.
9d. Each.

Be Master of Yourself!

Analyse your physical condition. Hold yourself up to the light and realise your defects through smoking. Let us help you banish this costly, dangerous habit. Advice free from the Home Welfare Pty., A.M.P. Buildings, 36R Hunter St., Wellington.

ENQUIRE WHAT THE I.C.S. CAN DO FOR YOU?

Every post brings letters from I.C.S. students telling of advancements and increased salaries won through spare time study. These advancements and increases were not only in the technical fields such as Electrical, Mechanical and Civil Engineering, Architecture, Chemistry, etc., but also in Salesmanship, Advertising, Business Management, Accountancy, and so on.

What subject are you interested in? Write to us to-day for full details.

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

1822 WAKEFIELD ST., WELLINGTON

Answers to Correspondents

A.O.H. (Otorohanga).—Your suggestion re DX pages is quite a good one, but unfortunately it has been found necessary to reserve the two centre pages for other purposes. Re N.Z. and Australian B class stations: From time to time, as new B class stations appear on the air, the particulars when available are published in the "Radio Record." These are, however, not always to be found on the DX pages.

Addresses & Addresses Wanted

"CATCH 'EM (Wellington).—WBBM, Atliss Investment Coy., Chicago, Illinois.

WOULD "Gregg" (Dunedin) please send his address?

Identification Wanted

A WEAK station heard on November 22, operating on 1380 kc. (220 metres). Heard between 7.30 p.m. and 8 p.m. Too weak for speaker to be understood.—"Catch 'Em" (Wellington).

ON November 15, station on 221's frequency. There was some talk about Chicago. Call sounded like New York. At 9.5 p.m., band, announcement, jazz music, announcement, jazz music, with man singing, announcement, 9.15 p.m. Closed down. Is there a station with call sign 1ZK? Does 2ZE, Eketahuna operate 1 degree above 2YB? What was the station on 221's frequency testing on Wednesday, November 19, at 9 p.m.? It was a New Zealand amateur. Two items heard, were "Sleepy Valley" and "Honey."—"Amuri" (Invercargill).

[2ZE, Eketahuna, operates on 247.8 metres (1210 kc.), while 2YB, New Plymouth, operates on 243.8 metres (1230 kc.). To our knowledge there is no station operating with the call 1ZK.—Ed.]

STATION heard on Wednesday night, November 26, from 8.30 p.m. till 9.35 p.m., when he closed down for a few minutes. His wave-length was about 225 metres (1330 kc.), and he gave address as 217 Gladstone Road, Gisborne, telephone 1859, but no call sign. Some of the items broadcast were: "Broadway Melody," "Spring Song," and "Jeannine." The announcer said it was blowing hard in Gisborne, and he would like to know how they were being received. I think J.P.C. (P.N.) inquired about this station.

JANETTE ROTARY CONVERTERS

For the Operation of A.C. Electrical Apparatus in D.C. Areas.

Compact, Trouble-free, Filtered Type for Radio use—No Hum.
12-volt type for Delco Lighting Plants for A.C. Radio Sets
Send for Descriptive Catalogue.

MOORES

Sole N.Z. Agents:
166 Queen Street, Auckland.
P.O. Box 1029.

News and Views of the D.X. CLUB

tion in issue of November 7.—"L.P." (Wellington).

STATION on about 550 metres (555 kc.), November 22, and occasionally during last week. Very distorted. Strength fairly good. Programme seemed to consist of gramophone records R.J.R. (P.N.).

SUNDAY, 23rd instant, at 1.30 p.m. to 1.45 p.m., on 1150 kc. (260 m.), dial 36. I heard a station about R5 playing: 1.30, "British Grenadiers," "Annie Laurie" (medley); 1.34 p.m., "Happy Days Are Here Again"; 1.40 p.m., piano and vocal numbers. Closed down at 1.45 p.m. Station call not given. Heard same station a fortnight previous.—"Stores" (Dunedin).

TWO stations heard early on Sunday morning, November 23, broadcasting what sounded like a football match. The announcer said that "play was carried from the 45yds. line to 7yds. line," etc. One was just above W2XAF's wave-length, and the other a degree below. A foreign station on about 30 metres at the same time on telephony. Bangkok, Siam was heard on 40 metres (about). Foreign station broadcasting music on 45 metres on Sunday morning.—J.C. (New Plymouth).

Stations Identified

J.T.S. (Napier).—There must be some mistake about my saying that WMBR is situated in Chicago. "Amuri" (Invercargill).—The Japanese stations are JOKH and JOAK or JOCK. I would like to get in touch with J.T.S. (Napier).—M. Ellis, Barrett Street, New Plymouth.

P.K.B. (Oamaru).—You do not say what wave-length you heard this station on. If an 80 metres, it may have been 3AG, Greymouth, or 4BL of your own town, both owned by lady "hams."—J.C. (New Plymouth).

D.X. Topics

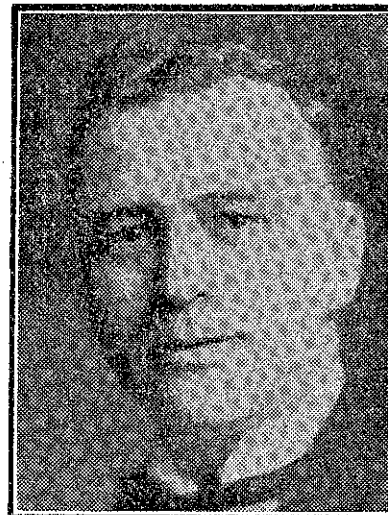
Japanese Stations.

I RECENTLY received Q.S.L. cards from JOHK, Sandai, and JOAK, Tokio. JOHK forwarded a complete list of the stations in operation—eleven in all. Broadcasts commence at 6 a.m. and continue till 9.40 p.m. JOAK forwarded a photo card of JOJK, with time schedule, etc. JOHK, JOAK,

JOCK, JOBK, and JOFK form the "chain" broadcasting system. To stations not listed in the Guide are JOJK, Kanazawa, 710 kc. (422 m.), 8 k.w. (input), and JFAK, Taihoku, 900 kc. (333 metres 10 k.w.—"Bob" (Wellington)

Station Particulars.

STATION WSXAL usually relays the WLW programmes and announcements (although occasionally the WSAI programmes go over this short-wave station, and also occasionally special programmes of international interest



WILL HANCOCK.

A deservedly popular 2YA tenor.
—S. P. Andrew Photo.

go over this station only). It operates on 49.5 metres (6060 kc.), with a power of 250 watts. The schedule is 6.30 a.m. to 11 a.m., 1.30 p.m. to 3 p.m., and 6 p.m. to 1.30 p.m., daily. They would very much appreciate reports on reception. Address: Crosley Radio Corp., Cincinnati, Ohio. W3XAL do not give any particulars. Address: National Broadcasting Company (Inc.), 711 Fifth Avenue, New York. PCJ is a crystal-controlled transmitter broadcasting, on a frequency of 9.59 x 10.6 cycles/sec. (wave-length approx., 31.3 m.). Maximum power, 27 kilowatts, with water-cooled transmitting and rectifying valves. Announcements in Dutch, English, French, German, and Spanish. schedule:

Wednesday, from 16.20, G.M.T.
Thursday, from 18.20 and 23.0, G.M.T.
Friday, from 0.3 and 18.20, G.M.T.
Saturday, from 0.6, G.M.T.

Mullard
THE MASTER VALVE

Embodies all improvements
known to Valve Manufacturers.

(This is from their latest Q.S.L. card). Address: N. V. Philips, Gloeilampenfabrieken, Eindhoven, Holland.—J.C. (New Plymouth.)

A Mystery Station.

I PICKED up the Gisborne station that "Jaka" (Wellington) mentions, on November 26, broadcasting on 12J's frequency (1/2 degree below 221). I first heard him at 8.30 p.m. and held him until he closed down at 10.30 p.m. Records were played throughout the whole programme with the exception that he closed down for about 20 minutes owing to being short of records. He also relayed the last two items of 3YA's programme. No call sign was given, and no items announced, but he gave his 'phone number and asked for reports to be sent in to 217 Gladstone Road, Gisborne. Here's your chance, "Proton" (Gisborne). Are you a Sherlock Holmes?—B.W. (Stratford).

I NOTICE in the "Radio Record" that "Squeak" (Christchurch) cannot understand how J.S. gets WENR, just above 2BL. I have picked up WENR practically every evening at about 6.30 p.m. (our time) during the last four weeks and always get it above 2BL. I have recently picked up Zeesen (31.38 metres) and G5SW (25.53 metres). They came through O.K. Last evening I picked up WBBM quite plainly, operating from Chicago on 889 metres (770 kc.). I am using a 4-valve s.g. battery set.—W.B. (Gisborne).

A Flexible 2-Valver.

I HAVE logged the following stations, chiefly on speaker, on a two-valve "inverse duplex" of my own make:—19 N.Z., 15 Australians, including Perth, on 1230 metres (244 kc.), its old wave-length, 4 Japanese, and 3 Americans. One morning about 3 o'clock some time ago I thought I heard the announcer say, "Station 7CA, Calcutta speaking." It was almost on top of 3LO, Melbourne's wave-length. The set is very flexible, one pair of coils tuning from 180 metres to 550 metres, another pair from 550 to about 950; and another which I constructed by way of experiment used to bring in Perth (sometimes). One morning I received an unknown on about 1400-1500 metres. The talk—and there was plenty of it—was distinctly foreign. On the 550-950 metre band there is nothing but Morse, but I get some enjoyment from that sometimes. I once heard a ship on the Atlantic transmitting fairly slowly.—"Inverse Duplex" (Rahotu).

KNOW the time all over the world with a
DX Clock.
Printed on Heavy White Paper.
Posted in Cardboard Tube.
9d. Each.

£30 - SCREEN - GRID RADIO CHASSIS, with Valves and Dynamic Speaker—or less Valves—£26.

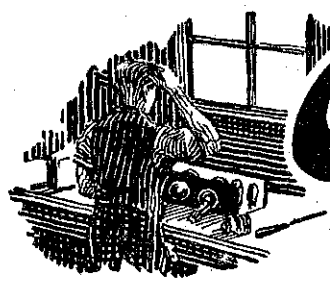
3-224, 2-227, 2-245's,
1-280—8 Valves in
all. Triple S.G. R.F.
Power Detection,
Push-pull.



Full Rich Tone, Ample Volume,
Good Distance and Selectivity.

Write for Details

ROYDS-HOWARD CO.
CHRISTCHURCH



Questions and Answers



M. I.J. (Auckland): In winding broadcast coils for the 1930 "Guide" short-wave set can I use 32 B. and S. wound on extended valve bases?

A.: 32 gauge is really very small; 30 would be better, and we have designed coils with these specifications. In a very short time, we really hoped to have had them this week but find we cannot, we intend to publish complete specifications for short-wave coils.

2. What is the most suitable ratio of audio transformer to use?

A.: Use low ratio for quality and high for loudness or volume and distortion. Generally speaking $3\frac{1}{2}$ to 1 gives the best results.

SOMNOS (Taranaki): My set has been distorting on the upper notes and has survived numerous alterations in the valves, layout, etc. With the power valve I have given as much as 40 volts bias and still get distortion. The mampmeter still shows distortion in the first stage. If due to an overloaded detector how can this be cured without loss of volume? The transformers are 4-1 and 2-1.

A.: You seem to have tackled most of the avenues that we can advise. The 2-1 transformer should be placed in the first stage and the 4-1 in the second. Other points seem to be too large a capacity condenser from the plate of the detector valve to the filament, or its absence. An inefficient high-frequency choke in the plate lead of the detector would cause loss in high notes. An anode bend detector will prevent overloading in that stage.

2. I have a swinging tickler and oscillation is very violent.

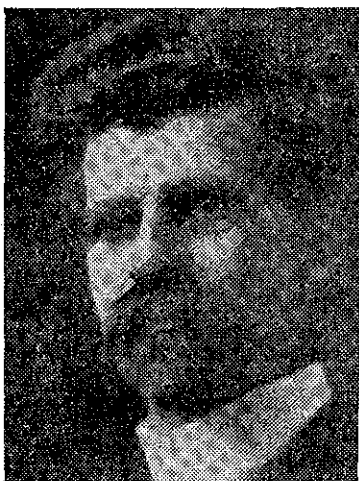
A.: It appears that you will have to take off some of the turns on the swinging coil.

PUZZLED (Westport): Since I have replaced my valves I can get only half the volume that I did with the old ones.

A.: It sounds as though a valve is defective. One of the batteries may be reversed, and see that the "C" connections are the right way round. If you

"Messiah" Relay

DURING 2YA's relay of the evening service from the Taranaki Methodist Church on Sunday, December 14, a portion of Handel's "Messiah" will be presented by an augmented choir and the following soloists:—
Soprano, M^{rs}. Florry Roscoe;
contralto, M^{rs}. Thomas Watson;
tenor, Mr. Harry Phipps; bass, Mr. R. R. Orr.



Mr. H. Temple White,
conductor.

still do not get results you should communicate with the agents for the set who sold you the valves.

J. B.H. (Auckland): Will you design coils for my short-wave receiver to be tuned to a .0003 condenser?

A.: A complete set of coils will appear in the near future. There is no point in using a condenser as large as .0003. Far better to remove some of the plates and use one of the sets of coils to be described.

RESISTANCE (Christchurch): I recently constructed a wet "B" battery, using Edison elements. The battery runs down too quickly. I mixed the electrolyte myself, but do not know the exact proportion in which I mixed the elements. The battery charges very quickly and rises to 175 volts, but at the end of six days the voltage is down to 125, sometimes less.

A.: Your "B" consumption appears to be about correct. The fact that your batteries charge up quickly point to a high specific gravity in the alkaline solution or a high charging rate. The remedy is to reduce the specific gravity and so permit the battery to take a longer charge, or reduce the charging rate, as this holds good with any battery. The slower you charge the longer you discharge, and conversely the quicker you charge the quicker you discharge.

D. X. (Dunedin): How many plates must be removed from my .0003 condenser to make it .00025?—Two.

2. Where can I obtain a copy of the "Listeners' Guide"?

A.: Try the Te Aro Book Depot, Wellington.

3. In what number of the "Radio Record" were the particulars for coils to suit my set given?

A.: They will be given again in a complete table in the near future.

TUI (Wanganui): I have made up your superheterodyne short-wave adapter, but it doesn't superhet. Should L3 and L4 be connected to earth?—Yes.

2. Would it be O.K. if I took the B+ lead for the adapter plates from the cap of one of my 224 valves?

A.: No; you must have a complete separate power supply for the superhet. The cap of your 224's are the grids of the valves, and consequently should be negative. You will find the set will work

quite satisfactorily if you observe these few points.

RAYDIOLO (Hamilton): Below 300 metres reception is clear and then distortion and fading occur. The set used to rumble anywhere below 300 metres, but this was remedied by sand-papering the bottoms of the screening shields.

A.: It may be your down lead from the aerial is swinging or hanging loose. From the data you have given us it is very hard to suggest anything other than this.

2. When the pickup touches any metal on the turntable and when any weight is placed upon the turntable the set buzzes.

A.: In some pickups this is quite in order; in others it denotes a broken cord or open circuit.

3. When the earth is disconnected the set rumbles and the stations come in with more volume.

RADIO DIRECTORY

What to Buy and Where

CITIES

ACE and HAMMARLUND SETS, Johns, Ltd.
WESTINGHOUSE Rectifiers Chancery Street, Auckland.

BROWNING DRAKE SPECIAL- F. J. W. Fear & Co.
ISTS 63 Willis Street, Wellington.

BURGESS RADIO BATTERIES, All Radio Dealers.

KING RADIO RECEIVERS ... F. J. W. Fear & Co.,
63 Willis Street, Wellington.

LOFTIN-WHITE AMPLIFIERS Stewart Hardware Ltd.,
Courtenay Place, Wellington.

MAJESTIC RADIO RECEIVERS Kirkcaldie & Stains,
Wellington Agents, Lambton Quay.

MULLARD VALVES ... All Radio Dealers.

PILOT 1930 PARTS—PILOT Harrington's, N.Z., Ltd.,
SUPER WASP KITS, GILFILLAN, KELLOGG and AT-
138-140 Queen St., Auckland.
WATER KENT SETS ... 40-42 Willis St., Wellington.

RADIOLA RECEIVERS and Farmers' Trading Co., Ltd.,
Expert Radiola Service. Hobson Street, Auckland.

STEINITE RADIO ... G. G. Macquarrie, Ltd.,
120 Willis St., Wellington.

COUNTRY TOWNS

MAJESTIC ... Radio House, Hamilton.
G. S. Anchor. Manager.

PHILIPS VALVES AND APPARATUS All Good Radio Dealers.

Don't be Handicapped by Isolation.

We specialize in supplying the wants of country listeners, and make a point of sending exactly what is wanted. Remember we pack and post (or rail) Free of Charge.

"A" Batteries, all makes (except Columbia) 2/6
"B" Batteries, Burgess super ... 32/6
Full-o'-Power "Power Sixty"... 2/1
Columbia super 32/-
"C" Batteries, 9-volts, tapped .. 2/6
Complete Loftin-White Amplifiers, with "Radiotron" Valves 2/12
All parts for home constructors of Loftin-Four. Ferranti B1 20-40 hy. choke. Ideal for the L-W. 25/-
Ferrand Inductor Speaker. Demonstration model in cabinet 2/5

We are the Mail Order Specialists. All goods guaranteed. Terms: In advance.

—The—
C.A.S.

(Country Accessories Supply)

20 VENTNOR STREET, SEATOUN,
WELLINGTON.

A.: This is because the set is then on the verge of oscillation.

4. Volume cannot be obtained without the valves overloading. This is a new feature.

A.: It appears you are oscillating, and this can be caused by a defective valve, a broken or bad connection in aerial or earth system. Look over these, particularly where joints have been made. See that the grid-leak is making a good contact, and if you can try the use of another one.

LONGEARS (Westland): Would a crystal set work two miles out of Invercargill?

A.: That we cannot say definitely. Your best plan would be to write to the Invercargill station and see how far they get crystal reception. Such a set should work quite well.

2. Can an amplifier be attached to a crystal set and what would be the price? A.: You can attach any variety of amplifiers to a crystal set, and a good one would cost you about £3.

STETSON (Milton): Will you give me the specifications for a 2 amp. charger using a Tungar bulb? The iron to be 1 1/2 in. wide.

A.: You will find most of the information you require in either the 1930 or the 1929 "Listeners' Guide." The number

of turns on the secondary will of course depend on the voltage you require. You should use 18 gauge wire for the secondary.

D. (Blenheim): Where could I get instructions for making a cheap Morse code transmitting set?

A.: We will shortly be commencing upon a series of articles which should suit your purposes.

2. I have a two-valve home-made set. What would I need to make it into a three-valve set?

A.: Another valve. Instructions for hooking up another one were given recently.

MAGNET (Wellington): Specifications for short-wave coils will be published in the near future.

EDE (Palmerston North): The "B" accumulator in the 1930 "Guide" charges well and gives full voltage, but it will not hold its charge.

A.: Plates to form properly take a good deal of charging, so although this is the eighth time do not lose heart. See our replies to "Resistance." Also look for an internal short-circuit in the battery such as the plates touching or thick sediment.

SCREEN GRID (Ngaio): I am using a high voltage dynamic speaker from my powerpack which supplies the Loftin-White, but there is a pronounced hum which is not present when using a magnetic speaker. How can this be overcome?

A.: It seems very much as though your powerpack is not delivering the current that is necessary. It requires a very good powerpack to stand a drain of 60 m-amps at 400 volts. If the drain on your speaker were to cause a drop in the initial voltage the symptoms you speak of would appear. All the resistances are planned out for working on 400 volts, and if you go below this the bias chiefly is altered and the circuits become out of phase and the hum is caused. Apart from that we are at a loss to understand why your set should hum, particularly as it does not hum with another speaker. If you measure the voltage and find it to be correct, then have the speaker tried out on another set. See our article this week on another method of connecting up the speaker.

2. The L.W. is slightly unsteady on the higher notes.

A.: Unsteadiness in the L.W. in any shape or form is due generally to the failure of the outfit to adjust itself to the bias required, and this traces down usually to a defective grid-leak resistance in the bias supply of the 245.

3. The 245 valve passes 36 mls. when used without an r.f. choke, but with it it consumes 33 mls. How can I reduce the current to 30 mls. as per the specification?

A.: Either the voltage delivered to the 245 is too high or the main chain of resistances too low, or the bias not properly adjusted. You should try another grid-leak in the circuit already mentioned.

4. Would heavy gauge sheet metal be suitable for the tuner chassis if aluminium shield cans are used for the coils?

A.: According to the dictates of theory iron shielding is not advised where radio frequency currents abound, though probably in a case such as this it would be quite satisfactory.

W. W. (Gisborne):—Would you send me a copy of the "Record" describing the way to make a good crystal set?

A.: We have some excellent descriptions ready, and they will be published in the very near future. If you keep an eye on the paper you must see them when they come out.

2. If one had two sets on two separate aerials running to one pair of phones, would the results be better?

A.: No. To get full way rectification, which, by the way, you are aiming at, it would be necessary to use a special hook-up, such as was described in the 1929 "Guide." This is an experimental set, and cannot always be relied upon to give good results. So much depends upon the maximum of the crystals, the coils and the condensers.

G. B. (Lower Hutt):—In a back issue of the "Record" there was an article dealing with the construction of a trickle charger using aluminium.

A.: The description appeared in our issue dated November 16, 1928. It is a rather tricky circuit, and by the way it contravenes the existing regulations. Your better plan would be to make a proper trickle charger with a transformer.

BEGINNER (Dunedin): Is it correct to place a resistance for resistance control regeneration in the B+ lead of an adapter?—Yes.

2. Can the resistance be placed in the B— lead when this lead is joined to A—?

A.: If you want to do this you must place the resistance between A— and B—, and so they will have separate leads to the set.

3. I have tried out the resistance control regeneration but oscillation is difficult to control. Would it be improved if resistance is placed in the negative lead?

A.: It is unlikely but it would be worth while trying. The difficulty of controlling regeneration is due probably to the design of your resistance and the layout of your set. The radio frequency choke should be between the plate of the valve and the transformer of your ordinary broadcast. On the other end of this winding of the transformer is the resistance and by-pass condenser. The hook-up is shown in sketch No. 11 in the accompanying diagram.

4. The resistance seems to be affected by hand capacity.

A.: You will find it will be prevented when you make the alterations in the circuit suggested.

5. Should the number of turns on the aerial coil be altered for each waveband?

A.: Yes, but the best plan is to do away with the aerial coil and bring the aerial through a condenser to the grid terminal of a coil. The aerial coil is usually about half the secondary.

6. Is the layout of my circuit correct?

A.: We do not undertake altering layouts for correspondents, for it is a big job, but you will find if you reverse the positions of the tuning condenser and the resistance, turn the coil round so that the secondary terminals are facing the condenser, and move the valve socket over you will have a better layout. The plate lead is far too long. It must be shortened if good results are to be expected. Your hook-up No. 2 is quite wrong. You are passing the current for your "A" battery through a 100,000 ohms resistance. The result will be that the valve will not light.

ANXIOUS (Devonport):—I have built a shortwave set exactly to specifications, and can only get Morse stations. The set has been tested and found O.K. I can oscillate only on part of the dial.

A.: You could try increasing the "B" voltage, as this should make your set oscillate more readily, but failing this we would advise you to get in contact with the local branch of the organisation, who

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).

"Radio Trouble Finder," 1/10.

(Published by "Radio News" Co.)

"Radio Amateur Call Book," Sept, 1930, 5/3.

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

"Elements of Radio Communication," by

Morecroft, 19/-.

"Thermionic Vacuum Tube," by Van der

Bijl, 28/-.

"Radio Receiving Tubes," by Moyer and

Westrel, 14/-.

"How to Make Practical Radio Receiving

Sets," 1/9.

"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.

This year's "N.Z. Listeners' Guide" (a

few extra copies now available).

Also last year's "N.Z. 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 broadcast-

ing 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

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 16ft. Sailing Canoe."

Money refunded if unsuitable and

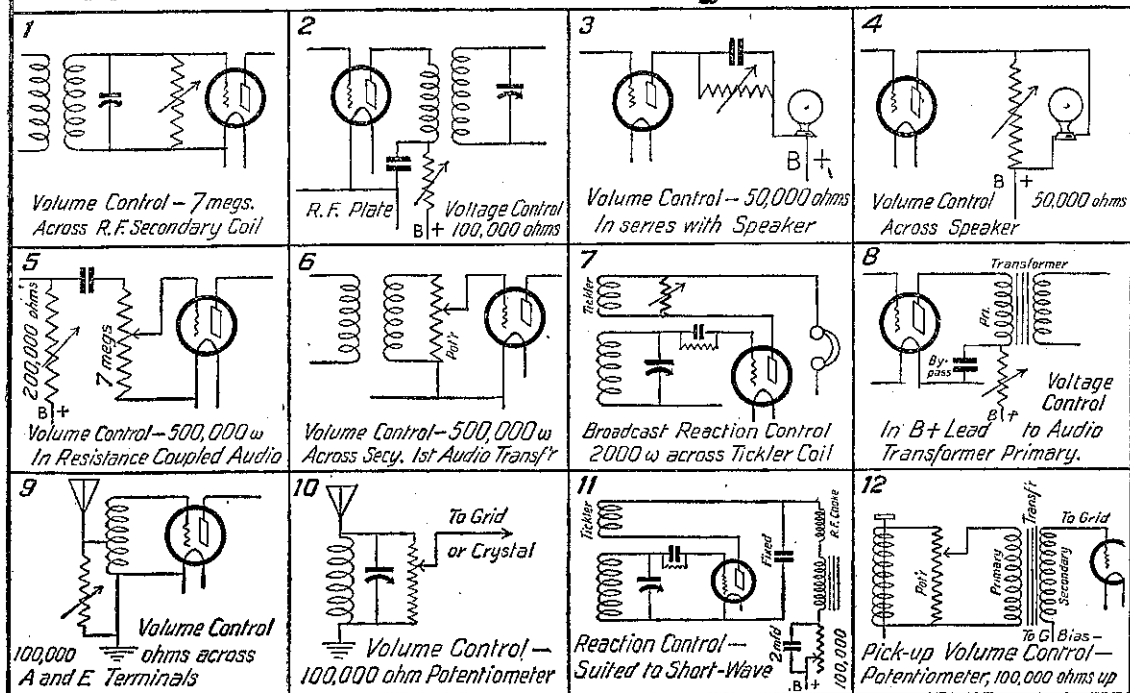
returned in good condition. New stocks

by every overseas mail. Write us.

TE ARO BOOK DEPOT

64 Courtenay Place, Wellington.

A Dozen uses for Variable High Resistances



put out the circuit and they can probably give you advice based upon experience.

PHARLAP (Napier): I am erecting an aerial as per the sketch enclosed. I would have 50ft. masts separated by 80ft., but would have to carry the lead-in 70ft. to the set. I could shift the mast to within 25ft. of the set, but the staying would be more difficult.

A.: The aerial in its present situation would not be as good as it might be. A long aerial lead would have a detrimental effect upon the signal strength to be received. Your best plan would be to put the mast nearer the house and the more distant one in the position now occupied by the nearer one. You would find if you totalled out the length you would have just about 100ft., which is the maximum length for a set using eight or nine valves.

2. What gauge wire do you suggest?—7/22 enamel.

3. Would an ordinary insulated wire such as that used for house lighting be suitable for leads in and out?

A.: No, you should insulated 7/22. The enamelled would be quite satisfactory if you keep it away from the building.

J. B.G. (Lower Hutt): The short-wave adapter in the 1930 "Guide" does not work on telephone, but is quite satisfactory on Morse. Telephone carriers can be distinctly tuned in, but that is all.

A.: We presume you have read our remarks concerning short-wave tuning, and you will find further remarks appearing in next week's issue. Further than that we would suggest that you increase the "B" voltage. The set has been successfully constructed by quite a few and has been found to work excellently. The laboratory model gave no suggestion of any trouble.

H. TEN-SHUN (Carterton): The volume is often cut down on my speaker, but a sharp knock on the back of the unit sometimes temporarily restores it.

A.: Your best plan would be to take the speaker to a dealer and have it repaired.

2. What is the life of a "C" battery? Would two such batteries aid reception?

A.: Some "C" batteries last as long as 18 months or two years. The number of such batteries must be determined by the voltage applied to the plate of the last valve and on the characteristics of the last valve itself. These you can obtain from the carton which accompanied or if you do not have this and mention the type of valve and your "B" voltage we can tell you the bias.

3. Would an earth taken through the floor to a cold water pipe which enters the earth some 12 yards away be as

The Experimenter

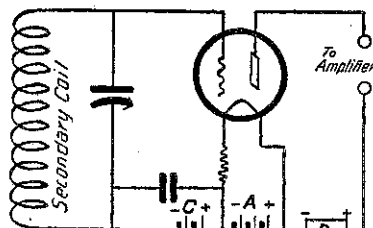
In response to several requests, we are opening a section devoted to the interests of the experimenting amateur. Tested ideas received from enthusiasts will be published and acknowledged. Experiences of listeners relating to points raised in our Questions and Answers column will be welcomed. We, however, cannot undertake responsibility for any of the ideas published.

Connecting a Pick-up

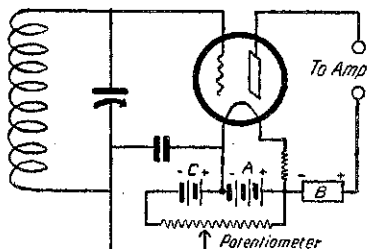
WHEN using a radio set as a gramophone amplifier, the pick-up may be brought directly into the grid circuit of the detector of the radio set. A volume control is necessary in practically every gramophone amplifier, and this is best included between the pick-up and the grid. If, however, the pick-up is not connected in the right way to the potentiometer (which forms the volume control), the tone may vary as the volume is regulated. The simplest and one of the best ways of including a volume control is to connect

efficient as an earth wire of several feet long connected to a pipe driven in the ground?

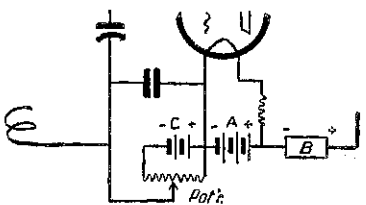
A.: The whole point hinges upon the word "several." If it is a long several it would be little better than the cold water pipe. If only five or six feet



Bias Variable by Tappings



Potentiometer across A & C



Sommes should find an anode bend detector as illustrated of help in eliminating detector overloading.

away it will be much better. The principle in installing an earth is to keep the wires as short as possible.

4. Does the length of the aerial given in the "Radio Record" of November 21 include the lead-in?—Yes.

C. R.G. (Auckland): Your circuit is very ambitious and would be little better than the ordinary circuit. You would have a great deal of trouble with it, and we do not advise you to go about constructing it. If you want coils designed for it we would have to charge a specialist's fee of £2/2/-.

one end of the latter through a fixed condenser (of about .0005 mfd. capacity) to one terminal of the pick-up, the other end going to grid-bias negative, while the slider is connected to the grid of the valve.

Earphones as Substitute on L.S.

THE following extract from "Dun's International Review" for September, 1930, may be worth a paragraph: "Disconnect one lead going to the loudspeaker (one of the leads to the voice coil in the case of the dynamic) so as to insert a table type clarostat in the circuit. The connector block of this device then takes the tips of the usual earphone cords. By turning the clarostat knob to decrease resistance the loudspeaker plays full volume and the earphones are inoperative. By turning the knob to increase the resistance, however, the earphones become operative while the loudspeaker volume is materially reduced to inaudibility." I have not as yet tried this method of providing earphone reception in combination with a set and if you consider it worthy of a test I would be interested to learn the results.—H. E. Chapman (Wellington).

Blocking Condensers

WHERE condensers of small capacities, but very high voltages, are required, such as "plate blocking" condensers in high-power transmitters are required, procure those condensers to be found in magnetos. They have to stand very high voltages and back e.m.f. Another "kink." Where a resistance is required to dissipate some considerable heat, procure from one's local electrician the porcelain element "formers" as to be found in

heaters and radiators, and wind the required resistance on the same. One could have several to "plug-in" or screw-in bases, thus obtaining several values as required by various valves.—"Microamp."

Eliminator on Short-Wave

MR. SELLENS, our short-wave correspondent, writes:—For short waves "B" batteries are a thing of the past. I have a commercial eliminator but experienced a certain amount of hum which has been overcome. It was: (1) An audio transformer which has, since gone "West" and been replaced by a first-grade article; (2) set wiring quite O.K. on battery, but attention required for mains working and, lastly, a B3 choke in detector lead bypassed with a 4 mfd. condenser. Result: Phones, after first audio, no sign of hum or background, with almost as much "kick" as two of audio before. Phones, second audio, some slight hum, but not safe for tuning by as morse stations come in at deafening strength, so I do all searching on first stage and plug in speaker on second—if signals strong enough.

An Improvised Choke

AN excellent home-made s.w. choke may be made by winding about a hundred turns of fine insulated wire around an ordinary test-tube. A dab of sealing-wax or of battery compound on the windings at each end will keep the winding in position. The precise number of turns to be included in the winding depends, of course, on the conditions under which the choke is to be used, but is, generally, not critical.

Drilling Precautions

BEFORE using a centre punch on an ebonite panel, care should be taken to ensure that there are no small screws or other obstacles on the bench beneath. If this precaution is omitted, it is quite possible that the panel will be split in half. When performing the actual drilling, it is a good plan to place several thicknesses of tissue paper underneath the panel to protect its surface.

ENGINEERING DEGREES THAT ASSURE YOU OF SUCCESS

Preference for the best posts is always given to holders of Degrees such as:

A.M. Inst. C.E., A.M.I. Mech. E., A.M.I.E.E., A.M.I. Struct. E., etc.

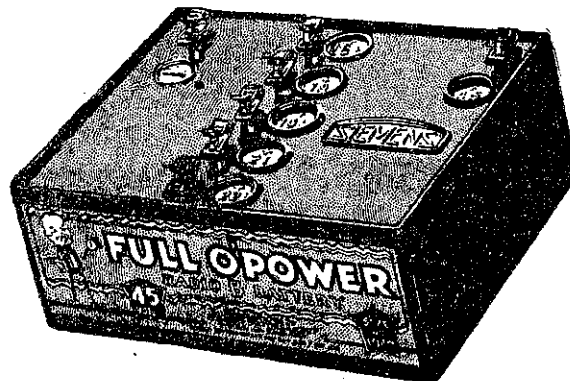
Through a T.I.G.B. home-study course you can train for the appropriate examination (which can be taken in this country), and the special tutorial arrangements for overseas students will enable you to progress just as easily as if you resided in Great Britain.

Write now for Free Copy of "The Engineer's Guide to Success," containing the widest selection of engineering courses in the world; supply details of your age, education and experience and you will be told the Degree at which you should aim and for which you will be trained under "Guarantee of Training until Successful."



124 Pages

The Technological Institute of Gt. Britain
141, TEMPLE BAR HOUSE, LONDON, E.C.4
(Est. 1917)

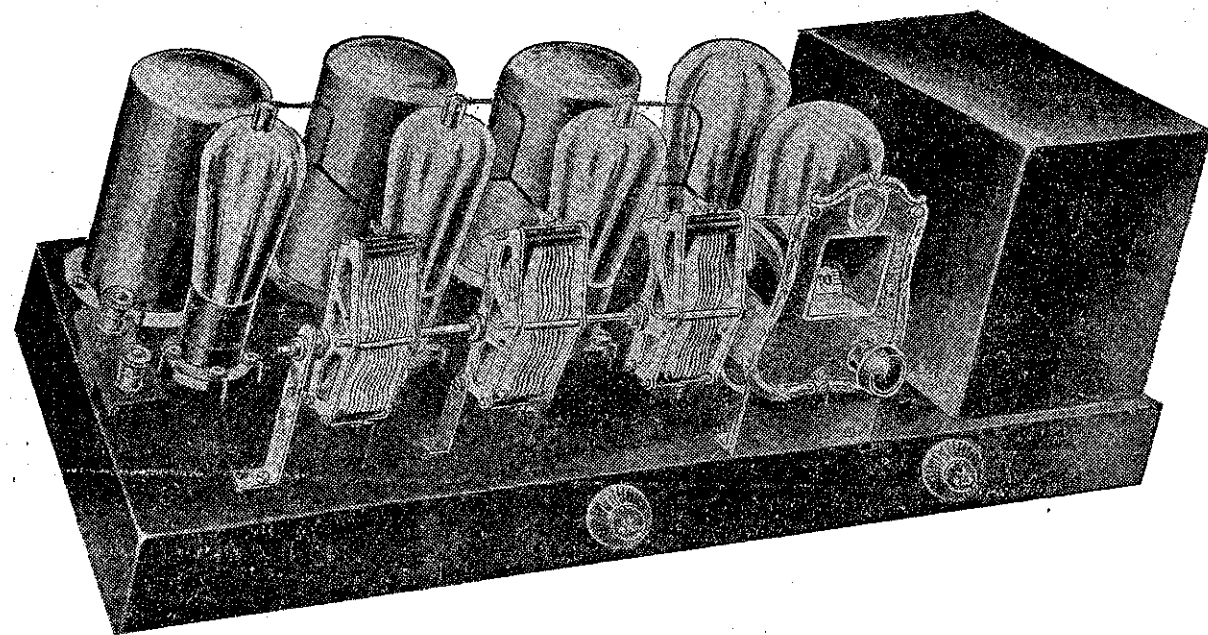


The Big Stride Forward in Battery Performance

Full O'Power
RADIO BATTERIES.

SOLE N.Z. DISTRIBUTORS:
CORY-WRIGHT AND SALMON
ENGINEERS.
P.O. BOX 1230 - WELLINGTON.

They Cost No More!



For Tonal Perfection Build the LOFTIN-FOUR

WE now come to the ultimate set of the Loftin-White series—the "Loftin-Four." There is no doubt that this is the most powerful set we have described in our constructional columns and its distance getting ability must make it a favourite with all those who are in the a.c. areas. Of course, before we go any further we know that we are not going to satisfy all our readers who are waiting to build. Some we feel will expect that the "Loftin-Four" will be a better d.x.er than a modern superheterodyne, will be as easy to build as a Browning-Drake, and will be very cheap. Let us right from the onset dispel all these ideas. The set is no more powerful than an ordinary a.c. set using three of four screen grid stages and the usual transformer of resistance coupled amplifier.

We do claim that as far as distance is concerned, this set will be equal to a screen grid set with five valves but, and here is the whole point, the quality will stand out sheer from anything else in the same class. It will be found that the direct coupled system gives the same amount of amplification as the conventional leak detector followed by transformer coupling, but does not possess its inherent limitations of broad tuning and distortion. Greater selectivity is possible by this modern arrangement, and for this reason there is little need to choke back the amplification of the r.f. stages for the selectivity considerations.

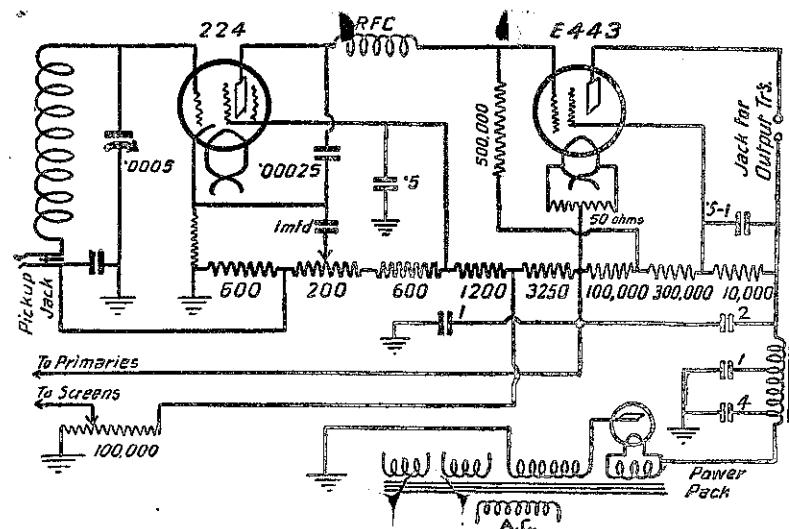
Translating this into practical terms it means that we can increase the ratio of primary to secondary turns in all the r.f. transformers and yet keep the set selective. In fact everywhere but right under the shadow of powerful stations, the only

limitation to the increase in the numbers of primary turns is the increasing instability of the set.

No Use for Reaction.

ANOTHER considerable point in the design of this receiver is that we say good-bye to reaction. And we are not sorry to do so either. Regeneration can be used on this set but it is not satisfactory—it has been rendered obsolete with the new valves that alone have made a set of the nature of the Loftin-Four possible.

Again we can recommend this set to constructors and know that we are not going to be swamped with queries from fellows who have encountered a multiplicity of difficulties, including hum. The unique arrangements made to combat it have been entirely satisfactory, and only where some deviation from specifications either intentional or accidental are made is there any cause for complaint. When we have finished talking about the merits and construction of this set we shall point out a few likely sources of trouble, and by studying them there is certainly no likelihood of anyone being stalemated.



The Circuits.

NOW, the first thing to do in describing a set is to present a multitude of circuits and confuse everyone who attempts to reach a decision as to which one to build. We think we have quite effectively done this, so shall pass on and try to unravel all these circuits and tell constructors the particular virtues of each so that they may intelligently decide which one to build. Our whole aim in this series has been to give constructors a choice so that they might have what they want.

Long experience has shown us that if we give a circuit with one particular set

of constants and no alternatives there will be a host of work coming in re designing for constructors who want something different. Of course we could get over the difficulty by saying that what we have described is the very best and there can be no alterations. All this is very good for trade and saves us work. But the little difficulty is that other arrangements will do, so this time we are trying to forestall all these questions by giving the experimentally minded a number of circuits and then he can please himself. There are still more to come, e.g., that containing the E406 in the last stage, but we cannot include it in this series because although the characteristic can be worked out on paper, they have yet to be put into actual operation—but it is on the way.

The Output Valves.

CONSIDERING the whole set as the full circuit diagram it will be noticed that in the last stage we have

BUILD THE LOFTIN THREE

We hold large stocks of Loftin-White Amplifiers and Spare Parts, Aluminium Sub-panels, Shield Cans and Wound Coils made up to any specification.

Thos. Ballinger & Co., Ltd.,

58-62 Victoria Street, Wellington.

"WHERE THE QUALITY GOODS ARE SOLD."

JUST ARRIVED FROM AUSTRALIA

RADIOKES SPECIAL COILS, RESISTANCES, AND SHIELD CANS
— FOR —

THE LOFTIN-WHITE FOUR

SET OF COILS £2/5/-
SPECIAL TAPPED RESISTANCE 12/6
SHIELD CANS Each 3/-

WE HAVE EVERYTHING FOR THIS REMARKABLE
RECEIVER

SPECIAL—GHIRARDI'S

RADIO PHYSICS COURSE

COMPLETE VOLUME, 15/-.

F. J. W. FEAR & Co.

PHONE: 41-446.

63 WILLIS STREET
WELLINGTON

LOFTIN-WHITE

Power Transformers
Strips—Enamelled V
test Condensers—Ins

A. E. STRAN

404 WORCESTER

E443

500,000

50 ohms

5-1

1200 3250 100,000 300,000 10,000

1 2

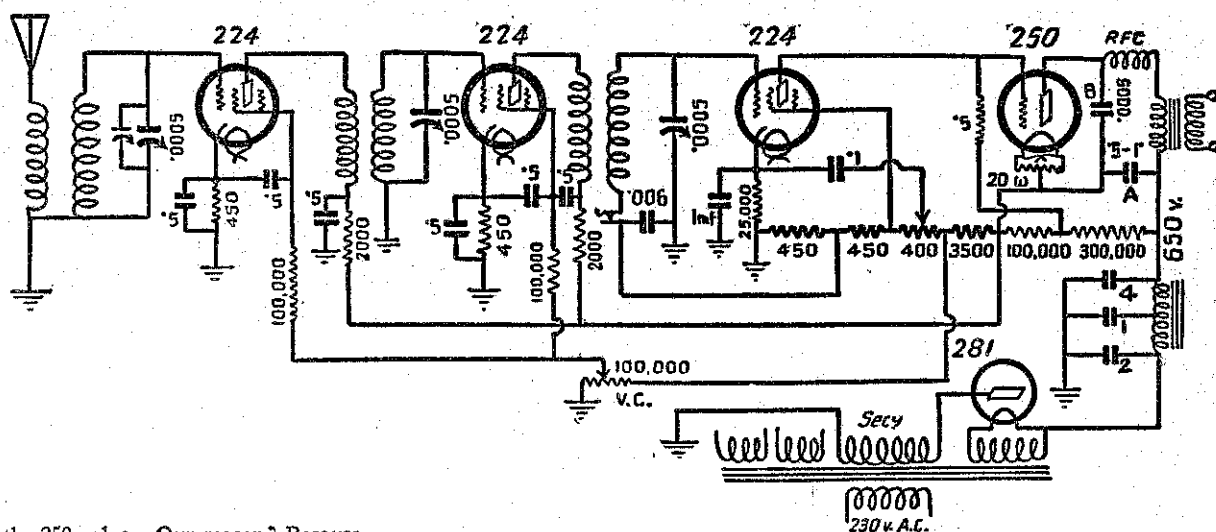
1 4

Power Pack

A.C.

Jack for Output Tr's

Telephone 37-664



The pentode in the last stage will appeal to a large number who want high

A FURTHER point that may be of interest to those who have speakers

(Continued on page 29.)

that's an idea!
YES



a
cased-in
**LOFTIN-
WHITE**

amplifier

And Local Receiver in two-tone Colours.

complete £15/10/-

For the electric recording of records with any gramophone, any electric pickup and any loudspeaker.

Will provide local broadcast reception equal in tone to that of any radio, regardless of its cost or workmanship.

ALSO—LOFTIN-WHITE CHASSIS, with Valves... £13/10/-

Without Valves £10/10/-

Power Packs and Separate Parts for amateur builders quoted and supplied on request.

As we are manufacturers we will supply the Licensed Radio Dealer
in N.Z. at trade prices.

We guarantee our manufactures and ask you to write us of your requirements.

Stewart Hardware Ltd.,

COURTENAY PLACE.

WELLINGTON.

Telephone 28-070.

Telegraphic Address "Relentively."

FEATURE PEEPS

... at ...

FUTURE PROGRAMMES

SUNDAY

From 1YA

THE evening service will be relayed from St. Mary's Cathedral, the preacher being Dr. Averill, and the organist and choirmaster, Mr. Edgar Randall. This will be followed in the evening with a relay of the Municipal Band concert to be given in the Auckland Town Hall. The band plays under the conductorship of Mr. Hal McLennan.

Wellington Notes

THE evening service of the Terrace Congregational Church, Wellington, will be relayed, the preacher being the Rev. H. W. Newell and the organist and choirmaster Mr. H. Brusey.

Following the church service, a relay of Handel's masterpiece, "Messiah," to be given by the Lower Hutt Methodist Church Choir augmented for the occasion, will be carried out. The conductor will be Mr. Ernest Dawson, and the organist, Mr. C. R. Horman. An orchestra of 30 talented musicians will also accompany the choir.

3YA Items

THE service in Durham Street Methodist Church will be on the air, the preacher being the Rev. W. T. Blight. A studio concert featuring the Christchurch Broadcasting Trio will follow.



SYD. ANDREWS.

A popular 3YA tenor.
—S. P. Andrew Photo.

Dunedin Topics

VEN. ARCHDEACON FITCHETT will be the preacher at St. John's Anglican Church, Roslyn, when the service will be broadcast. The relay of 3YA's studio concert will follow.

MONDAY

2YA Programme

MR. H. C. SOUTH will broadcast his fortnightly book review.

The Singing Circle of the Pioneer Club, together with the Orchestra, will provide the whole of the concert programme.

The vocal items by the Singing Circle will comprise glees, solos, trios, duet, and quartets. The items to be played by the Orchestra will include the "St. Hubertus" overture and the "Faust Ballet Music."

From Christchurch

CONDUCTOR R. J. ESTALL, of the Woolston Band, has arranged an excellent programme for this evening. The numbers will include two marches, Bilton's overture, "Napoleon," and Sibelius's "Finlandia," a fox-trot, a waltz, and the patrol, "Cock of the North." Items by the Broadcasting Trio are also included in the programme.

4YA Features

A NEW radio performer, Miss Lucy James, a contralto, who has a voice of refined quality, well under control, and exceptionally suited to the microphone, will take part in the programme. She will sing three delightful songs, "A Dream of Delight," "Over the Moor," and "The Roman Road." Other artists of very high calibre are also on the programme. The complete instrumental section of this programme will be in the very capable hands of the Kenz Orpheans, one of the finest popular combinations of its kind in the Dominion. Mr. B. Finlayson, pianist in this orchestra, is to present a novelty "Chopinata," a modern version of Chopin's works.

Silent day at 1YA.

TUESDAY

From 1YA

AT 3.15 p.m., Mrs. Les Crane will continue her talks on "Health of Mind and Body in Relation to Diet." At 7.40 p.m. another very interesting talk on "Birth Stones" will be given by Mr. Esmond Kohn.

This evening the Broadcasting Choir will present "St. John's Eve,"

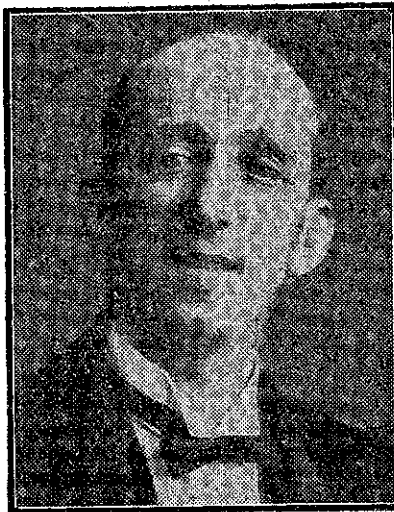
an old English Idyll, by Sir Frederick Cowen. After this will be a short studio programme.

A BRIGHT and varied programme will be given by the Salon Orchestra, the Melodie Four, Mrs. R. S. Allwright, and those popular entertainers Mr. Will McKeon and Miss Maisie Oakes. A novelty item of interest to Scotsmen in particular will be the bagpipe solos by Mr. Dick Fletcher, who is a well-known member of the local Pipe Band.

Dunedin Topics

MR. R. W. COUPLAND will broadcast a talk on "Tourist Resorts."

THE programme will be provided by the St. Kilda Band, under the conductorship of Mr. J. Dixon. The



H. INSTONE.

A humorist much appreciated by 2YA listeners.
—Steffano Webb Photo.

assisting artists will be well-known Dunedin performers.

WEDNESDAY

Auckland Features

AMONG the many institutions in Auckland for the improvement of young players is the Ponsonby Boys' Brass Band. This combination enjoys a wide popularity and delighted the forty odd thousand spectators at the recent Rugby football matches against the British team. The whole of the evening's programme will be given by the Ponsonby Boys' Brass Band and assisting artists.

The Week

"The Messiah"

2YA, Sunday.

Pioneer Club Singing Circle

2YA, Monday.

"St. John's Eve"

1YA, Tuesday.

Ponsonby Boys' Brass Band

1YA, Wednesday.

Poems of Masfield

3YA, Thursday.

The Celeste Four

4YA, Friday.

Optimists' Club

2YA, Saturday.

From 3YA

NUMEROUS excerpts from light and comic operas will be presented by the Melodious Quartet. Listeners will be treated to solos and concerted numbers from a wide selection of musical plays. The humorous portion of the evening's programme will be provided by Mr. H. Instone and a popular orchestral programme will be given by the Studio Octet.

Notes from 4YA

THE afternoon talk by the Home Science Extension Department of Otago University will be on "How to Bring Out Your Best Points." At 7.15 Mr. J. Hogg will speak on "American Business Methods." Both talks are under the auspices of the 4YA Primary Production Committee.

Four popular artists will be contributing the vocal and the orchestral music will be provided by the Studio Trio.

THURSDAY

Shoes

THE home science talk from 1YA, 2YA, and 3YA this afternoon will be "Shoes."

Auckland Items

MR. R. S. LANGTON will give the second of his talks on "Afforestation in New Zealand."

The instrumental portion of the programme will be provided by the Orchestral Octet, under the direction of Mr. Harold Baxter. Included in their items will be a trio for flute, cello, and organ. Eric and Jack, a popular novelty and piano duo, will be heard in several ballads and the latest hits, while the Celeste Vocal Trio have included among their items "Estudiantina."

2YA Notes

THE Director of the Dental Division of the Department of Health will give the final of the department's "Talks on Teeth" series this evening at 7.40, his subject being "Public Dental Services in New Zealand."

The Band of the Wellington Division of the Royal Naval Volunteer Reserve will provide a studio concert this evening. The band, under the conductorship of Petty Officer Baker, will feature a selection of "English Songs" and excerpts from Mozart's opera "The Magic Flute." Mr. Brown (flautist), who is a player of extensive experience, will, besides playing two solos, play an obligato to Mrs. Holland's solo "The Wren." A feature of the programme will be the sketches by Mr. Vryn Evans and Miss Linnie Nicholas. These artists performed very successfully at the station last month.

From Christchurch

AT 7.30 Mr. R. L. James, of Lincoln Agricultural College, will speak on "Farmers' Methods for Levelling and Draining."

Two plays, both written by Mr. Allan Mulgan, of Auckland, will be acted, and Professor J. Shelley will give a reading of poems by Masfield, the Poet Laureate.

Mrs. Ann Harper will sing "The Carpet" and "Mignon," the baritone solos by Mr. J. Tennant being "The Lute Player" and "Youth." Instrumental items will be provided by Mr. Harold Beck (cellist) and the Christchurch Broadcasting Trio.

FRIDAY

Auckland Items

THAT very popular quartet, the New Zealand Four, will provide the vocal music for this evening's concert. Orchestral items will be given by the Orchestral Octet under the direction of Mr. Harold Baxter, and the items include the Eastern Dance—"Chang," "Tales of Hoffmann," and the fantasia "The Water Melon Patch." The programme will include a short gramophone lecture-recital.

2YA Features

MR. AND MRS. RAY KEMP will be heard in solos and duets from musical comedies. Humorous items will be given by the popular 2YA entertainer, Mr. Will Yates. A novel turn will be furnished by Mrs. R. M. Cummins, who will sing popular songs with ukulele accompaniment, this being the first time items of this nature have been broadcast from 2YA. Mr. J. F. Skedden, an artist who has made a special study of syncopated piano novelties, will also contribute items, his numbers being "Coaxing the Piano," "Old-fashioned Locket," and "I'll Always be in Love with You." Suitable orchestral items will be played by the Orchestra under the baton of Signor A. P. Truda.

Christchurch Programme

MISCELLANEOUS items, including vocal selections, humorous sketches and orchestral music by the Studio Octet will be heard from 3YA to-night.

Broadcast from 4YA

A NEW mixed quartet, to be known as the Celeste Four, will make its first appearance, and should provide some excellent, bright numbers. The members of the quartet are Misses Rita Holmes and B. Rawlinson, and Messrs. James Simpson and L. Cachemaille—all artists of talent.

They will be heard in extracts from the song-cycle,

"Flora's Holiday," by Lane-Wilson, as well as a variety of solos and duets. The most popular duet from Mozart's "Magic Flute" is to be sung by the soprano and the bass. Mr. H. Dalziel, a brilliant marimbaphone player, will broadcast novelty numbers. In the elocutionary section of the programme, there will be a fifteen minutes' sketch by Miss McGregor and Miss Newbold entitled "Square Pegs." The 4YA Trio will present light numbers and a cello solo is to be played by Mr. Palmer. The programme contains all types of music from the latest song "hits" to the higher forms of classical music.



MRS. J. A. STEWART.
A 3YA mezzo-soprano of considerable merit.
—Steffano Webb Photo.

SATURDAY

Topics from 1YA

MR. G. D. RUTTER will once again be heard in a talk on "Gladioli." A relay from the Auckland Town Hall of the concert to be given by the Municipal Band under the direction of Mr. Hal McLennan will be carried out.

Wellington Notes

THE Wellington Y.M.C.A. Optimists' Club, a band of business men whose object is to spread the "germ" of optimism, will, with the assistance of the Salon Orchestra, contribute the whole of the programme from 8 to 10 p.m. On this occasion it will be a programme that will serve to bring Christmas to the old folks, and judging by the popularity of their last entertainment, this one will certainly prove most enjoyable.

The dance programme will commence at 10 p.m.

3YA Items

MISS CICELY AUDIBERT, an entertainer from the professional stage, who recently made her first appearance at 3YA, will again perform this evening, presenting a budget of songs. During the evening Miss Elaine Moody's Hawaiian Trio with steel guitars and ukulele will present popular airs, with vocal refrains by Miss Moody.

Notes from 4YA

A GROUP of well-known artists and Mr. Arthur Gordon's orchestra will provide a bright and entertaining evening.

Children's Sessions

FROM 1YA.

TUESDAY, DECEMBER 9.—All will be pleased to hear the Kowhai Junior High School at the Studio, once again, with their melodious part-songs and choruses, while Uncle Dave will tell more Maori-land fairy stories.

WEDNESDAY.—Girl Guide programme this evening—the St. Francis Troupe will help Uncle Tom to make the hour a happy one.

THURSDAY.—Miss Haresnape's pupils will be present with piano solos, duets, and recitations. Stories and jokes from Peter Pan, and probably a new game to play.

FRIDAY.—Nod and Aunt Jean on deck. What will Aunt Jean's verses be about? Cousins will provide sketches and recitations.

SATURDAY.—Cinderella Cousin Phyllis and Isabel all combining to entertain the Radio Family.

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

FROM 2YA.

MONDAY, DECEMBER 8.—Uncle Jeff is bringing a happy band of children from Miss Zena Jupp's studio. Several are going to dance a clog dance. Cousin Claude will also be here with his Maori Legend story.

TUESDAY.—Uncle Toby and Jumbo have invited "Little Cock Sparrow," "The Old Woman who Lived in a Shoe," "Lucy Locket," and "Polly Put the Kettle On" to come from Mrs. Ethel Mackay's studio to introduce them to the Milly-Molly-Mandy Lady.

THURSDAY.—To-night a motor-car is calling at the studio to take us to Nursery Land. Uncle Jasper is going to drive us and Spot is coming, too.

FRIDAY.—Again we are to welcome the Scots College boys to the Studio. They are going to sing their hearty choruses, and they are also bringing their orchestra. Story Book Lady and Story Book Man will be here, too, with Uncle Jim.

SATURDAY.—Mrs. Isobel Halligan is bringing her pupils to-night to give us a little play called "The Ever



NORAH GRAY,
whose charming soprano voice delights many listeners to 2YA.
—S. P. Andrew Photo.

Ever Land." There is also a big surprise to-night. Can you guess what it is?

SUNDAY, DECEMBER 14.—The Children's Choir from the Aro Street Methodist Mission are coming to sing to-night. Uncle George will conduct the service.

FROM 3YA.

MONDAY, DECEMBER 8: Helping Cousin Margot this evening will be a little band of Tiny Singers. They are some of the Children's Festival Singers and they will sing charming French songs, so you can expect something good. The Mystery Man has more stories for the boys.

WEDNESDAY: Uncle John has a group of the Elmwood School scholars helping him this evening with choruses, solos and recitations.

THURSDAY: Ladybird, Uncle Frank and Uncle Dick have lots of fun, choruses, stories and songs for you at 5 o'clock.

FRIDAY: "Chuckie" singing his "Cheer-up, Keep Smiling," song for you, and the Burwood School Choir supplying many happy choruses and part-songs.

SPECIAL FOR PORTABLE SETS

45-Volt, only 16/- each. All Tested.

BRIGHT STAR BATTERIES

A compact 45-volt "B" battery which has been specially designed for use in portable radios. Longer life—less space—made for the job.

BRIGHT STAR Standard size "B" Batteries, from 18/6.

4½-Volt Standard "C" Batteries 3/6 each

22½-Volt Standard "B" Batteries 10/6 each

L. B. SCOTT LTD.

Box 395
CHRISTCHURCH

Full Programmes for Next

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

Sunday, December 7

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, DECEMBER 7.

- 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—Divine Service, St. Mary's Cathedral. Preacher: His Grace the Archbishop of New Zealand, Dr. A. W. Averill. Organist and Choirmaster: Mr. Edgar Randall.
 8.30 (approx.): Relay—Municipal Band Concert from Auckland Town Hall, under conductorship of Mr. Hal McLennan.
 9.30 (approx.): God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, DECEMBER 7.

- 4.0 to 4.30: Afternoon session of selected gramophone records.
 6.0 : Children's song service, conducted by Uncle George, assisted by the Vivian Street Church of Christ Sunday School Choir.
 7.0 : Relay of the Evening Service from the Terrace Congregational Church. Preacher: Rev. H. W. Newell, M.A. Organist and Choirmaster: Mr. H. Brusey.
 8.0 : Relay from the Lower Hutt Methodist Church of Handel's Oratorio "The Messiah," by the Lower Hutt Methodist Church Choir, and assisting artists. The choir will be accompanied on the Grand Organ and by an orchestra of thirty instrumentalists. Soloists: Soprano: Miss Christina Ormiston. Contralto: Mrs. Wilfred Andrews. Tenor: Mr. G. Austin Blackie. Baritone: Mr. R. R. Orr. At the organ: Mr. C. R. Horman. Conductor: Mr. Ernest Dawson.
 God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, DECEMBER 7.

- 3.0 : Afternoon session gramophone recital.
 5.30: Children's Song Service by children of the Methodist Sunday Schools.
 6.15: Chimes and hymn tunes.
 6.30: Musical recordings from studio.
 7.0 : Relay of evening service from Durham Street Methodist Church. Preacher: Rev. W. T. Blight. Organist and Choirmaster: Mr. Ernest Firth, F.R.C.O.
 8.15 (approx.): Programme from Studio: Selection—Band of H.M. Grenadier Guards, "The Meistersingers" (Wagner).
 8.21: Contralto—Miss Nellie Lowe, "Serenata" (Braga).
 Tenor—Mr. C. R. Williamson, "Ave Maria" (Kahn).
 Baritone—Mr. A. G. Thompson, "Son of Mine" (Wallace).
 8.31: Broadcasting Trio, "Allegro" (from "C Major Trio") (Mozart).
 Cello—Mr. Harold Beck, (a) "Nocturne" (Tschalkowski); (b) "March On" (Benjamin).
 8.45: Soprano—Mrs. W. B. Harris, "Prayer To Our Lady" (Ford).
 Contralto and baritone—Dulcet Duo, "Glory to Thee, My God."
 Baritone—Mr. A. G. Thompson, "Wolfram's Romance" (from "Tannhauser").
 8.55: Great Symphony Orchestra, "Paying a Visit to Millocker."
 9.1 : Weather report and station notices.
 9.3 : Selection—Polydor Brass Band, "Il Trovatore Melodies" (Verdi).
 9.11: Contralto—Miss Nellie Lowe, (a) "A Summer Night" (G. Thomas), (b) "Absent" (Metcalfe).
 Tenor—Mr. C. R. Williamson, (a) "The Sweetest Flower That Blows" (Hawley), (b) "Sing Songs of Praise" (Handel).
 9.22: Broadcasting Trio, (a) "Pastel Minuet" (Paradis), (b) "Serenade"; (Arensky); (c) "Scherzo" (Schubert).
 9.32: Soprano—Mrs. W. B. Harris, (a) "Songs My Mother Taught Me" (Dvorak); (b) "Faery Song" (Boughton).
 Baritone—Mr. A. G. Thompson, "There Is No Death" (O'Hara).
 9.40: Selection—Black Diamond Band, "The Gypsy Dance" (George).
 9.45: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, DECEMBER 7.

- 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 St. John's Anglican Church, Roslyn. Preacher: Ven. Archdeacon Fitchett, M.A.
 7.45: Berlin State Opera Orchestra, "German Dances" (Mozart).
 Piano—Frederic Lamond, "Tarantelle De Bravura" (Liszt).
 Choir—St. Margaret's Church, (a) "The Voice That Breathed O'er Eden" (Gauntlett), (b) "Lead Us Heavenly Father" (Filitz), (c) "Sevenfold Amen" (Stainer).
 Instrumental—Hermann Trio, "Arabesque in E Major and G. Major."
 8.15: Relay selection concert from 3YA, Christchurch.
 9.30: God save the King.

Monday, December 8

1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, DECEMBER 8.

SILENT DAY.

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, DECEMBER 8.

- 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.
 Royal Albert Hall Orchestra, "Carmen Prelude, Act 1" (Bizet).
 National Symphony Orchestra, "Sylvia Ballet Cortège de Bacchus." Organ—Reginald Foort, "Schon Rosmarin" (Kreisler).
 6.12: Tacet.
 6.15: Mark 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 session, market reports and sports results.
 7.40: Lecture—Mr. H. C. South, "Books—Grave and Gay."
 8.0 : Chimes.
 Overture—Orchestra (Conductor, Signor A. P. Truda), "St. Hubertus" (Fucik).
 Selection—A Movement from "Symphony No. 2 in A Minor."
 8.16: Glee—Singing Circle of Pioneer Club, (a) "Sunbeam" (Landon Ronald); (b) "Ye Banks and Braes" (Traditional); (c) "Bella Napoli" (Boscovitz).
 8.24: Piano—Miss Nora Gray, (a) "Polonaise in C Sharp Minor" (Chopin); (b) "Old Vienna" (Godowsky); (c) "Waltz" (Stojowsky).
 8.34: Recital—Mr. Lawrence Searle, "Soldiers of Fortune" (Service); "The Student's Story" (Anon).
 8.41: Soprano—Miss Ella Fair, (a) "She is Far From the Land" (Lambert); (b) "The Meeting of the Waters" (Old Irish Traditional).
 8.48: Cello—Orabio de Castro, "At the Fountain" (Davidson).
 8.52: Glee—Singing Circle of Pioneer Club, "Estudiantina" (Lacombe).
 8.56: Contralto—Mrs. Phyllis Ramsey, (a) "A Memory" (Goring Thomas); (b) "Tally Ho" (Leoni).
 9.0 : Weather report and station notices.
 9.1 : Selections—Orchestra, (a) "Elegie and Polacca" (from "Suite No. 3" (Tschalkowski); (b) "Entr'acte Valse" (Hellmesberger); (c) "Album Leaf" (Wagner).
 9.16: Vocal trios—Miss Nora Gray, Mesdames Townley and Ramsey, (a) "To a Wild Rose" (McDowell); (b) "The Little Old Garden."
 9.23: Soprano—Mrs. Dane Carrington, "My Lady's Bower" (Hope Temple).
 9.26: Baritone—Mr. J. M. Goodson, (a) "Horses of the Dawn" (Brett); (b) "Believe Me if all Those Endearing Young Charms."
 9.31: Violin—Erica Morini, "Arioso" (Bach, arr. Franks); "Gypsy Serenade."
 9.41: Mezzo-contralto—Mrs. P. J. Townley, "On Wings of Song."
 9.44: Tenor—Mr. Colin Gray, (a) "An Old Garden" (Hope Temple); (b) "Mignon" (D'Hardelot).
 9.50: Glee—Singing Circle of Pioneer Club, (a) "Maidens Fair" (Rubinstein); (b) "Carry Me Back to Old Virginny" (Bland).
 9.56: Ballet music—Orchestra, "Faust Ballet Music No. 4" (Gounod).
 10.0 : Dance session.
 Foxtrots—Broadway Players, "I'm Following You."
 Carl Fenton and His Orchestra, "Bless Her Little Heart."
 Broadway Players, "Redhead" (Embry, Johnson).
 Carl Fenton and His Orchestra, "That Wonderful Something is Love" (Goodwin, Alter).
 10.12: Waltz—Broadway Players, "All Day Long" (Cross, Preston, Stanley).
 Foxtrots—Cova Cavaliers, "Mona" (Conrad, Mitchell, Gottler).
 Carl Fenton and His Orchestra, "A Little Kiss Bach Morning" (Harry, Woods).
 10.21: Vocal—F. Luther, C. Robinson, "Sweet Virginia" (C. Robinson).
 10.24: Foxtrots—Cova Cavaliers, "How Long Must I Wait For You?"
 New Yorkers, "Oriental Moonlight" (Seamen, Smoley).
 Carl Fenton and His Orchestra, "Hello Little Sweetheart."
 Pletcher's Eli From Trotters, "That's Where You're Wrong."
 10.36: Waltz—Broadway Players, "Shepherd's Serenade" (Grey, Stothart).
 Foxtrots—Zenith Knights, "Congratulations" (Pinkard, Goetz, Green).
 Pletcher's Eli From Trotters, "I Like to do Things for You."
 10.45: Vocal—F. Luther, C. Robinson, "Down on the Old Plantation."
 10.48: Foxtrots—Jack Montrose Orchestra, "I'm so Tired of it All" (Hanley).

Week-all Stations-to Dec. 14

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

Broadway Players, "Should I be Sorry?" (Kapp, Eller, Johnson); "With You" (Berlin).

New Yorkers, "Under a Texas Moon" (Ray Perkins).

11.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, DECEMBER 8.

8.0 : Afternoon session—Gramophone recital.

4.25: Sports results.

5.0 : Children's hour, conducted by "Cousin Margot and Mystery Man."

6.0 : Dinner session.

Albert Sandler and His Orchestra, "Someday, Somewhere."
B.B.C. Wireless Military Band, "Strathspeys and Reels" Part 1 (arr. B. Walton O'Donnell); Part 2 (arr. G. Williams).
Saxophone—Rudy Wiedoeft, "Sax-o-Phun" (Wiedoeft).
Len Fillis Novelty Trio, "The Heart of the Sunset" (Nicholls).

6.13: Tacet.

6.15: Percy Pitt and Augmented Symphony Orchestra, "Poet and Peasant" Overture, Parts 1 and 2 (Suppe).

Harp—Sidonie Goossens, "Song of the Volga Boatmen" (arr. Salzedo).

H. G. Amers and the Eastbourne Municipal Band, "The B'Hoys of Tipperary" (Amers).

6.28: Tacet.

6.30: Albert Sandler and His Orchestra, "Sonny Boy" (de Sylva, Brown, Henderson, Jolson).

H. G. Amers and the Eastbourne Municipal Orchestra, "Second Sere-nata" (Toselli, arr. Gehl).

Saxophone—Rudy Wiedoeft, "La Cinquantaine" (Marie, arr. Wiedoeft)

Debroy Somers Band, "Russian Fantasy" (arr. Lange and Somers).

6.43: Tacet.

6.45: H. G. Amers and the Eastbourne Municipal Band, "All on a Christmas Morning—Idyll" (Amers).

B.B.C. Wireless Symphony Orchestra, "H.M.S. Pinafore Selection, Parts 1 and 2" (Sullivan).

H. G. Amers and the Eastbourne Municipal Orchestra, "Tarantelle for Flute and Clarinet" (Saint-Saens).

6.58: Tacet.

7.0 : News session.

7.30: Dialogue—Messrs. E. Wiltshire and F. C. Fairclough, "The Story of the Garden." Elementary botany as applied to the garden.

8.0 : Chimes. Band Programme by Woolston Band (Conductor, R. J. Estall), and assisted by 3YA Artists.

March—Band, "Etheloids" (Player).

Overture—Band, "Napoleon" (Bilton).

8.12: Bass-baritone—Mr. Malcolm Miller, (a) "She is Far From the Land" (Lambert); (b) "Thro' the Fields in Winter" (Sokolov).

8.18: Broadcasting Trio, "Trio No. 3 in A Minor" (Bohm).

8.28: Chorus—Columbia Light Opera Company, (a) "Paul Rubens Mem-ories" (Wimperis-Rubens); (b) "Ivan Caryll Memories" (Caryll).

8.36: Foxtrot—Band, "Singin' in the Rain" (Brown).

8.40: Humour—George Graves and Myles Clifton, "The 'Ole in the Road."

8.48: Mezzo-contralto—Mrs. Graham Jamieson, (a) "The Star Flower Tree" (from "Pagoda of Flowers") (Woodford-Finden); (b) "One Alone" (from "The Desert Song") (Romberg).

8.54: Cornet—Bandsman R. Ohlsen and Band, "Zelda" (Percy Code).

9.0 : Weather forecast and station notices.

9.2 : Selection—Debroy Somers Band, "Hungarian Medley" (arr. Somers).

9.8 : Bass-baritone—Mr. Malcolm Miller, "She Alone Charmeth My Sad-ness" (Gounod).

9.12: Broadcasting Trio, (a) "The Muses" (Farjeon); (b) "Elegie and Consolation" (Atherton); (c) "Alla Danza" (Haden).

9.22: Humour—Scott and Whaley, "A Run with the Darktown Hunt."

9.28: Patrol—Band, "Cock of the North" (Carrie).

9.35: Mezzo-contralto—Mrs. Graham Jamieson, "Over the Dark Still Silence" (Alba Rizzli).

9.39: Overture—Band, "Finlandia" (Sibelius).

9.47: Tenor—Morton Downey, (a) "When They Sing the Wearin' of the Green" (Green-Sept); (b) "Love is a Dreamer."

9.55: Waltz—Band, "Amazon" (Eltzing).

March—Band, "Lydney Park" (Ord Hume).

10.3 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, DECEMBER 8.

8.0 : Chimes. Selected gramophone items.

4.25: Sporting results.

5.0 : Chimes. Children's hour, conducted by Big Brother Bill.

6.0 : Dinner music session, "Edison Bell" hour.

Edison Bell Symphony Orchestra, Paris, "Ballet Egyptian" Parts 1 to 4 (Luigini).

Marcu's Roumanian Orchestra, "It is Written on Your Lips."

6.14: Tacet.

6.15: Edison Bell Symphony Orchestra, Paris, "Manon" Parts 1 to 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: Scala Salon Orchestra, "Say It With Songs" 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.

8.0 : Overture—Regal Cinema Orchestra, "Show of Shows" (Magidson).

8.9 : Contralto—Miss Lucy G. James, (a) "Dream of Delight" (Nicholls); (b) "The Romany Road" (Dickson).

8.15: Accordion—A. Mortarelli, "Margarita" (Rinaldi).

8.18: Recital—Miss Ngata Buswell, "The Inventor's Wife."

8.22: Popular melodies—Kenz Orpheans, (a) "There's a Cradle in Caro-line" (Ahlert); (b) "Rosette" (Lombardo).

8.30: Baritone—Mr. C. S. Hawes, "Kerry Dance" (Molloy).

8.33: Violin—Frederic Fradkin, "Frasquita" (Lehar).

8.36: Piano—Mr. B. Finlayson, "Chopinata" (Doncett).

8.40: Soprano—Miss T. C. Blackman, (a) "Latest Theme Song" (b) "Chi-quita" (Wayne).

8.46: Popular melodies—Kenz Orpheans, "Miss Wonderful" (Ward); "I'll Be Getting Along" (Gibbons).

8.54: Tenor—Mr. J. B. Hamilton, (a) "The Auld Hoose" (arr. Smith); (b) "The Nameless Lassie" (arr. McKenzie).

THE NEWS IS OUT ! ! IT'S ARRIVED !

"The Voice of Authority"

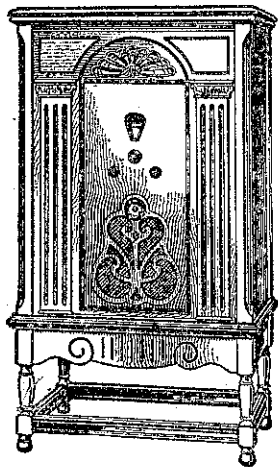
NEW ELECTRIC SCREEN-GRID RADIO.

Here's the Big News You've been waiting for . . . Startling All Radio Enthusiasts. The New Sets feature the Punch in STEWART-WARNER performance—the Punch that brings the distant stations booming in like locals; the Punch that gives the pep and power with un-matched Realism of Tone and Without A.C. hum.

GET THE FACTS NOW ON THE STEWART-WARNER RADIO FOR 1931.

A 50-WORD STORY Why You Should Buy a Stewart-Warner Radio

Has improved Screen Grid Circuit; 8 Tubes; uniform reception clear across the dial; three times greater volume without distortion or A.C. hum. Rated highest for sensitive reception by engineers. New electro dynamic repro-ducer. Unmatched realism of tone. Plug-in for Gramophone. Beautiful period models. Every up-to-the-minute improvement.



"THE SET WITH THE PUNCH."

Seventeen Millions Sterling, and 24 years' experience in Precision Manufacture, plus the good will of 27 Million Customers, stand behind your Stewart-Warner Radio. The new radios are now ready. Get your application for a demonstration in—NOW. Your Local Dealer will be Proud to Prove the Facts.

SOLD THROUGH A HUNDRED LICENSED AUTHORISED DEALERS

RADIO
AUCKLAND

Hope Gibbons Ltd
CHRISTCHURCH

DIVISION
WELLINGTON

- 9.0 : Weather report.
 9.2 : Band—H.M. Grenadier Guards, "A Voyage in a Troopship."
 9.10: Contralto—Miss Lucy G. James, "Over the Moor" (Liddle).
 9.13: Organ—Quentin Maclean, "Little Dolly Daydream" (Stuart).
 9.16: Recital—Miss Ngata Buswell, (a) "The Night Wind" (Field); (b) "Three Fishers" (Kingsley).
 9.22: Popular melodies—Kenz Orpheans, (a) "Should I?" (Brown); (b) "Chant of the Jungle" (Brown).
 9.30: Baritone—Mr. C. S. Hawes, (a) "Hills of Donegal" (Sanderson); (b) "Garden of Happiness" (Wood).
 9.36: Banjo novelty—Mr. J. McNeil, "Paraphrase on 'When You and I Were Young Maggie'" (Butterfield).
 9.40: Soprano—Miss T. C. Blackman, "Sunshade Sue" (Tennent).
 9.43: Foxtrot—Kenz Orpheans, (a) "West Wind" (Youmans); waltz, (b) "My Desert Rose" (Terese).
 9.51: Tenor—Mr. J. B. Hamilton, "Silver Threads Among the Gold."
 9.54: Selection—Jack Hylton and His Orchestra, "Memories of Paris."
 10.0 : God save the King.

Tuesday, December 9

1YA, AUCKLAND (900 KILOCYCLES)—TUESDAY, DECEMBER 9.

- 3.0 : Afternoon session—Selected studio items, including Literary Selection by the Announcer.
 3.15: Talk—Mrs. Les Crane, "Beauty of Mind and Body in Relation to Diet."
 3.30: Further selected studio items.
 5.0 : Children's session, conducted by Uncle Dave.
 6.0 : Dinner session.
 Royal Opera Orchestra, Covent Garden, "Faust" Ballet Music, First to Fourth Movements (Gounod).
 San Francisco Symphony Orchestra, "Rosamunde" Entr'acte.
 6.14: Tacet.
 6.15: National Symphony Orchestra, "Stradella" Overture (Flotow).
 Organ—Reginald Foort, "The Riff Song" (Romberg).
 Philadelphia Symphony Orchestra, "Samson and Delilah" Bacchanale.
 6.29: Tacet.
 6.30: Royal Opera Orchestra, Covent Garden, "Faust" Ballet Music, Fifth to 7th Movements (Gounod).
 Organ—Reginald Foort, "The Desert Song" (Romberg).
 Philadelphia Symphony Orchestra, "Damnation of Faust" (Berlioz).
 6.44: Tacet.
 6.45: National Military Band, "Ballet Egyptien" (Luigini).
 National Symphony Orchestra, "Norma" Overture (Bellini).
 6.57: Tacet.
 7.0 : News and market reports.
 7.40: Talk—Mr. Esmond S. Kohn, "Birth Stones."
 8.0 : Presentation of "St. John's Eve," an old English Idyll. The poem by Joseph Bennett, the music by Frederic H. Cowen (Novello), by the 1YA Broadcasting Choir, under the direction of Mr. Len Barnes. Soloists: Nancy (a village maiden), Miss Gwladys Payne. Robert (a young villager), Mr. Len Barnes. Margaret (an ancient Dame), Miss Cathleen Mulqueen. The Young Squire, Mr. H. S. Poffley. Chorus of Villagers. Organist, Mr. Eric F. B. Waters. Pianist, Mr. Cyril Towsey. Introduction:

SCENE 1.

St. John's Eve. Villagers decorate their houses with flowers and foliage.

No. 1—Chorus. Bring branches from forest.
 The Girls. In the Cups of the Flowers.
 Margaret. Ah! Foolish Girls.

No. 2—Scene and Chorus: Margaret and the Girls, "You, Susan, when the Midnight Bell."

No. 3—Solo and Chorus:
 Robert. "That Part will I Play."
 The Girls. "Thy Wooing's Vain."

No. 4—(Men, piling wood for St. John's Bonfire). "Ho! Good St. John was a Shining Light."
 Margaret. "What Ye Would Do."
 Chorus. "Whirl Round the Torch" (Men and lads join hands and dance round the fire).
 Chorus. "Blessed Fire of Good St. John" (the Villagers take brands from the burning pile and disperse).

SCENE 2.

The Garden of Nancy's Cottage—Midnight.

No. 5—Recit and Air. Nancy, "O Peaceful Night."

No. 6—The Young Squire. "O Zephyr Stirring 'Midst the Leaves."
 Chorus. "Blessed Fire of Good St. John."

SCENE 3.

The Squire's Hall—Christmas Day.

No. 7—Carol. Margaret and Chorus, "Three Kings Once Loved in Eastern Land."

No. 8—Chorus. "See! See! On Her Breast Gleams the Rose."

No. 9—Scena and Chorus. Robert, the Villagers, Nancy, The Young Squire, "A Lover if Bold Doth the Fates Compel."

No. 10—Duet. The Young Squire and Nancy, "Fairrest of Roses."

No. 11—Final Chorus. "Now Joy shall be in Cottage Poor."

9.0 : Evening weather forecast and announcements.

9.2 : Violin—Miss Daphne Higham, (a) "Hejre Kati" (Hubay); (b) "Meditation from Thais" (Massenet).

- 9.10: Vocal trio—Misses Gwladys Payne, Cathleen Mulqueen and Mr. H. S. Poffley, "Pure Ray of Light" (Baker).
 9.14: Violin—Miss Daphne Higham, (a) "Canzonetta" (Henrie); (b) "Zardas" (Monti).
 9.20: Baritone—Mr. Len Barnes, (a) "May, the Maiden" (Carpenter); (b) "The Belated Violet" (Clayton Johns); (c) "Through Eastern Gates" (Clayton Johns).
 9.28: Dance Programme from the Studio.
 Foxtrots—Lloyd Huntley and His Isle o' Blues Orchestra, "Moaning For You" (Goulding, Dougherty).
 Roger Wolfe Kahn and His Orchestra, "Without a Song."
 Colonial Club Orchestra, "It's You I Love."
 Lloyd Huntley and His Isle o' Blues Orchestra, "Alone in the Rain" (Goulding, Dougherty).
 Colonial Club Orchestra, "Why?" (Davis-Coots-Swanstrom).
 9.45: Duet—Billy Murray and Walter Scanlan, "Shut the Door."
 Foxtrots—The A. and P. Gypsies, "South Sea Rose" (Gilbert-Baer).
 Roger Wolfe Kahn and His Orchestra, "Great Day."
 The A. and P. Gypsies, "Only the Girl" (Ruby Jerome).
 9.57: Waltz—Hal Kemp and His Orchestra, "Romance."
 Foxtrots—Herman Waldman and His Orchestra, "Marbles."
 Hal Kemp and His Orchestra, "Navy Blues" (Turk-Alekt).
 Benny Meroff and His Orchestra, "The Talk of the Town."
 Colonial Club Orchestra, "March of the Old Guard" (Mardia de la Guardia Vieja) (Grey-Stothart).
 10.12: Vocal—Frances Williams, "Bigger and Better Than Ever."
 Foxtrots—Colonial Club Orchestra, "Sweetheart We Need Each Other."
 Herman Waldman and His Orchestra, "Waiting" (Gardner).
 Ben Bernie and His Orchestra, "What is This Thing Called Love?" (Cole Porter).
 10.24: Waltz—Regent Club Orchestra, "You're Always in My Arms."
 Foxtrots—Ray Miller and His Orchestra, "Funny Dear, What Love Can Do" (Bennett-Little-Straight).
 Benny Meroff and His Orchestra, "Happy Days Are Here Again" (Ager-Yellen).
 Ray Miller and His Orchestra, "Finesse" (Maltin Doll).
 10.36: Duet—Billy Murray and Walter Scanlan, "Sergeant Flagg and Sergeant Quirt" (Klein-Moll).
 Foxtrots—Colonial Club Orchestra, "Charming" (Grey-Stothart).
 Ben Bernie and His Orchestra, "She's Such a Comfort to Me" (Furber-Parsons).
 10.48: Waltz—Lloyd Huntley and His Isle o' Blues Orchestra, "Molly."
 Foxtrots—Ray Miller and His Orchestra, "My Victory."
 Al Goodman and His Orchestra, "M-A-R-Y" (Gordon-Rich).
 Ray Miller and His Orchestra, "Blue Butterfly."
 Al Goodman and His Orchestra, "Lonesome Little Doll."
 11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, DECEMBER 9.

- 3.0 : Chimes. Selected studio items.
 3.30 and 4.30: Sporting results to hand.
 5.0 : Children's session, conducted by Uncle Toby and Jumbo.
 6.0 : Dinner music session.
 Charles Ancilffe and His Orchestra, "Ancilffe 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 Sicillienne."
 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 Daybreak" (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."
 Gil Dech Ensemble, "Valse Parisienne" (Roberts, arr. Barry).
 6.58: 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) Suite "Russet and Gold" (Sanderson).
 8.9 : Duet—Mr. and Mrs. E. S. Allwright, "As I Went a Roaming" (Brahe).
 8.12: Bagpipes—Mr. Dick Fletcher, "Scottish Marches" (Trdtl.).
 8.17: Quartet—Melodie Four, "The Moon Man" (Macy).
 8.21: Selection—Salon Orchestra, "Cobweb Castle" (Lehmann).
 8.29: Entertainers—Miss Maisie Oakes and Mr. Will McKeon, (a) "Opening Chorus" (Original), song, (b) "You Always have to Pay a Little More" (Cooper), sketch (c) "The Trouble About the Dog" (Mark Twain), duet (d) "You're the Sort of Girl" (Cliff-Hedley).
 8.39: Selection—Band of H.M. Coldstream Guards, "Faust" (Gounod).
 8.47: Bass—Mr. W. W. Marshall, "Asleep in the Deep" (Petrie).
 8.50: Tenor—Mr. Sam Duncan, "Murmuring Breezes" (Jensen).
 8.54: Selection—Salon Orchestra, "In Arcady" (Nevin).
 9.2 : Weather report and station notices.
 9.3 : Bagpipes—Mr. Dick Fletcher, "Scottish Waltzes" (Trdtl.).
 9.8 : Soprano—Mrs. R. S. Allwright, "A Japanese Love Song" (Brahe).

Soprano and Quartet—Mrs. R. S. Allwright and Melodie Four, "Silver Threads Among the Gold" (Danks).

- 9.15: Organ—Terence Casey, "Crazy Pirouette" (Frisk) "Love Everlasting."
 9.23: Sketch—Miss Maisie Oakes and Mr. Will McKeon, "Station I.O.U." (A Broadcast Absurdity) (Original).
 9.33: Suite—Salon Orchestra, "Suite Romantique" (Ketelbey).
 9.43: Tenor—Mr. Frank Bryant, "Love Came Calling" (Zamecnik).
 9.46: Xylophone—Rudy Starita, "Dancing Butterfly" (Golden).
 9.50: Quartet—Melodie Four, "Request Item"; "Lovely Night" (Chwatal).
 9.57: Selection—Salon Orchestra, "Naila" (arr. Lange).
 10.3: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, DECEMBER 3.

SILENT DAY.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, DECEMBER 9.

- 3.0: Afternoon session—Vocal and instrumental recordings.
 5.0: Children's session, conducted by Uncle Bert.
 6.0: Dinner session.
 Marek Weber and His Orchestra, "Cavalleria Rusticana" Selection.
 Violin—Fritz Kreisler, "Schon Rosmarin" (Kreisler).
 Vienna Philharmonic Orchestra, "Hungarian Dance, No. 3" (Brahms).
 6.13: Tacet.
 6.15: Berlin Philharmonic Orchestra, "Tannhauser" March (Wagner).
 Piano—Mischa Levitzki, "Sonata in A Major" (Scriabin).
 de Groot and His Orchestra, "I Love You" (Grieg).
 Berlin Philharmonic Orchestra, "Hungarian March—The Damnation of Faust" (Berlioz).
 6.28: Tacet.
 6.30: Berlin State Orchestra, "Oberon" Overture (Weber).
 Violin—Fritz Kreisler, "Rondino" (Kreisler).
 Vienna Philharmonic Orchestra, "Hungarian Dance, No. 1" (Brahms).
 6.43: Tacet.
 6.45: Royal Opera Orchestra, "Entr'acte Act 4 and Ballet Music" (from "Carmen") (Bizet); "Ballet Music" (from "Carmen") (Bizet).
 Piano—Mischa Levitzki, "Eccossaise" (Beethoven).
 de Groot and His Orchestra, "Romance" (Rubinstein).
 6.58: Tacet.
 7.0: News session.
 7.15: Talk—Mr. R. W. Coupland, "Tourist Resorts."
 8.0: Programme of music to be rendered by the St. Kilda Band, under the direction of Mr. J. Dixon, assisted by 4YA artists.
 March—"Entry of the Gladiators" (Fueki).
 Waltz—"Thoughts" (Alford).
 8.15: Soprano—Miss Ray Stubbs, "Waltz Song" (from "Merrie England").
 8.19: Organ—Lew White, "Dancing with the Tears in My Eyes" (Burke); "When it's Springtime in the Rockies" (Taggart).
 8.25: Recital—Miss Isobel McGregor, "Types at the Football" (Newman).
 8.31: Overture—Band, "Raymond" (Thomas).
 8.40: Baritone—Mr. Reg. Richards, (a) "Oh, Could I but Express in Song" (Malashkin); (b) "Bois Epais" (Lully).
 8.47: Violin—Frederic Fradkin, (a) "Nola" (Arndt); (b) "A Kiss in the Dark" (Herbert).
 8.52: Contralto—Miss Green "O, Peaceful England" (German).
 8.55: Intermezzo—Band, "Just a Memory" (Marsden).
 9.2: Weather report and station notices.
 9.4: Selection—Herman Finck's Orchestra, "Old and New Potpourri of Popular Melodies" (arrgd. Finck).
 9.12: Soprano—Miss Ray Stubbs, (a) "Ash Grove" (Welsham); (b) "The Kerry Dance" (Molloy).
 9.19: Humorous selection—Band, "Musical Fragments" (Rimmer).
 9.30: Recital—Miss Isobel McGregor, "The Lesson of the Watermill."
 9.34: Saxophone—Rudy Wiedoeft, "Minuet" (Beethoven—arrgd. Wiedoeft).
 9.38: Baritone—Mr. Reg. Richards, "Don Juan's Serenade" (Tschalkowsky).
 9.42: Selection—Band, "The Coster's Courtship" (Mackenzie).
 9.49: Contralto—Miss Green, (a) "Alas, Those Chimes" (Wallace); (b) "Dear Love, Thou'rt Like a Blossom" (Liszt).
 9.55: March—Band, "The Exile" (Weaver).
 10.0: God save the King.

Wednesday, December 10

1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, DECEMBER 10.

- 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:
 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 (Karl Komzak).
 6.14: Tacet.
 6.15: New Concert Orchestra, "Life in Vienna," Parts 3 and 4 (Karl Komzak).
 Military Band (of specially selected musicians), "The Guards' Patrol."
 Dinicu and His Orchestra, "Crepuscule" 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 and market reports.
 8.0: Chimes. Presentation of full evening's programme by the Ponsonby Boys' Brass Band (Incorporated) and artists:
 Overture—Band, "Lustspiel" (Kela Bela).
 March—Band, "Old Comrades" (Rimmer).
 8.12: Vocal duet—Messrs. J. West and A. Brown, "Larboard Watch."
 Soprano—Miss Gwenda Weir, "You'll Get Heaps o' Lickin's."
 Baritone—Mr. Wilfred Manning, "Danny Deever" (Damrosch).
 8.24: Selection—Band, "Maritana" (Wallace).
 8.40: Humour—Mr. A. G. Brown, "A Trip Round Auckland" (own arrgt.).
 Soprano—Miss Gwenda Weir, "A Little Winding Road" (Ronald).
 Tenor—Mr. John West, "Nirvana" (Adams).
 8.52: Cornet duet—Messrs. J. Clarkson and A. Kay, "The Marionettes."
 9.0: Evening weather forecast and announcements.
 9.2: Hymn—Band, "Abide With Me" (Monk).
 Entr'acte—Band, "Bells of St. Martin" (Andrew).
 9.16: Baritone—Mr. Wilfred Manning, "The Song of the Flea" (Moussorgsky).
 Humour—Mr. A. G. Brown, "Topical Verse" (own arrangement).
 Tenor—Mr. John West, (a) "Angels Guard Thee" (Godard), (b) "He Heard the Great Sea Calling" (Andrews).
 9.31: Fantasia—Band, "Minstrel Melodies" (Bource).
 9.42: Novelty—The Company, "Musical Ear Test" (arr. Brown).
 9.51: Humorous selections—Band, "Slidin' Thro' the Rye" (Truman).
 March—Band, "Evertonia" (Greenwood).
 10.2: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, DECEMBER 10.

SILENT DAY.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, DEC. 10.

- 3.0: Afternoon session—Gramophone recital.
 4.25: Sports results.
 5.0: Children's hour, "Uncle John."
 6.0: Dinner session:
 Selection—Kauffman's Orchestra, "The Gipsy Baron" (Strauss).
 Waltz—La Vittoria Orchestra, "Wedding of the Winds" (Hall).
 6.12: Tacet.
 6.15: Piccadilly Orchestra, "If Only I Had You" (Davies); "Lolita" (Ferrete).
 Hawaiian—Kolomoku's Honoluluans, "Aloha Oe" (Liliuokalani).
 Piccadilly Orchestra, "Charmaine" (Rapee).
 6.27: Tacet.
 6.30: Selection—New Mayfair Orchestra, "This Year of Grace" (Coward).
 Waring's Orchestra, "Ah! Sweet Mystery of Life" (Herbert).
 Hawaiian—Kolomoku's Honoluluans, "Three O'Clock in the Morning."
 6.42: Tacet.
 6.45: Victor Concert Orchestra, "Minuet in G" (Paderewski); "Amaryllis."
 Piccadilly Orchestra, "Bird Songs at Eventide" (Coates).
 Waltz—International Concert Orchestra, "Blue Danube" (Strauss).
 6.57: Tacet.
 7.0: News session.
 7.30: Addington stock market reports.
 8.0: Chimes. Overture—National Symphony Orchestra, "Norma" (Bellini).
 8.7: Bass—Mr. T. D. Williams and Melodious Quartet, "The Sailor's Life."
 Mezzo-contralto—Miss Millicent Jennings, "Garden of Love" (from "Veronique"—Messenger).
 8.13: Banjo—Len Fillis, "Banjoviality" (Fillis and Bright).
 8.17: Tenor and chorus—Mr. Russell Sumner, "West Country Lad" (from "Tom Jones"—German).
 8.21: Soprano—Miss Frances Hamerton, "Waltz Song" from "Tom Jones."
 8.25: Studio instrumental octet (Conductor, Harold Beck), (a) "Grand March" from "Aida" (Verdi), (b) "Celebrated Nocturne" (Chopin).
 8.35: Bass and contralto—Melody Duo, "The Crookit Bawbee" (traditional).
 8.39: Humour—Mr. H. Instone, "Algy's Drama" (arr. Instone).
 8.44: Studio Octet, (a) "Pas de Amphores" (Chaminade), (b) "Mazurka."
 8.51: Choral—Melodious Quartet, "Lads and Lassies" (from "Dorothy").
 8.55: Selection—National Military Band, (a) "Christchurch Chimes," (b) "Weymouth Chimes" (arr. Hare).
 9.1: Weather forecast and station notices.
 9.3: Studio Octet, Ballet Music from "Le Cid" (Massenet), (a) "Castillane," (b) "Andalouse," (c) "Aragonaise," (d) "Aubade," (e) "Catalane."
 9.15: Soprano and tenor—Melodious Duo, "Trot Here and There" (from "Veronique"—Messenger).
 Mezzo-contralto—Miss Millicent Jennings, "As All the Maids" (from "Tom Jones"—German).
 9.21: Organ—Arthur Meale, "Cavatina" (Raff, arr. Meale).
 9.24: Mr. Russell Sumner, "Rose Marie" (from "Rose Marie").
 Soprano and chorus—Miss Frances Hamerton and quartet, "Love Maketh the Heart" (from "Tom Jones"—German).

- 9.30: Studio Octet, "Jig" (Holst).
 9.34: Contralto and tenor—Melodia Duo, "Half-past Two" (from "The Acadians"—Monckton).
 9.37: Humour—Mr. H. Instone, "Difficult to Please" (George Grossmith).
 9.41: Studio Octet, "Woodland Sketches" (MacDowell).
 9.49: Bass—Mr. T. D. Williams, "With a Welcome for All" (from "Dorothy")
 Chorus—Melodious Quartet, "Hark, the Merry Marriage Bells" (from "Tom Jones"—German).
 9.55: Medley—Paul Godwin's String Orchestra, "Lehariana" (Geiger).
 10.2: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, DECEMBER 10.

- 3.0: Chimes. Selected gramophone items.
 3.15: Talk—"How to Bring Out Your Best Points." Talk prepared 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 music:
 Berlin State Opera Orchestra, "Polonaise" (Liszt).
 Violin—Isolde Menges, "Nocturne in E Flat, Op. 9, No. 2" (Chopin).
 6.13: Tacet.
 6.15: Band—H.M. Coldstream Guards, "La Fille de Madame Angot" (Lecocq)
 Piano—Mark Hambourg, "Rakoczy March" (Liszt).
 John Barbiroli's Chamber Orchestra, "A Little Night Music—First Movement" (Mozart).
 6.29: Tacet.
 6.30: John Barbiroli's Chamber Orchestra, "A Little Night Music—Second, Third, and Fourth Movements."
 Piano—Mark Hambourg, "On Wings of Song" (Mendelssohn).
 6.44: Tacet.
 6.45: Virtuoso String Quartet, "Londonderry Air" (arr. Bridge).
 Violin—Isolde Menges, "Air on G. String" (Bach).
 Virtuoso String Quartet, "The Emperor" Quartet, Op. 76, No. 3 (Haydn).
 6.58: Tacet.
 7.0: News session.
 7.15: Talk—Mr. J. Hogg, under auspices of 4YA Primary Productions Committee, "American Business Methods."
 8.0: Overture—Berlin Philharmonic Orchestra, "Carnivale Romain."
 8.9: Baritone—Mr. Arthur W. Alloo, (a) "The Windmill" (Nelson), (b) "To-morrow" (Keel), (c) "The Lost Chord" (Sullivan).
 8.19: Instrumental—4YA Trio, "Andante from Symphony in D" (Haydn); "Allegro from Symphony in E Flat" (Mozart).
 8.33: Recital—Mr. A. Gorrie, "Twelve Minutes with Lord Tennyson."
 8.45: Soprano—Mrs. D. Carty, (a) "The Spinning Wheel" (Lees), (b) "Bonnie Banks of Loch Lomond" (McKenzie), (c) "Duncan Grey."
 8.55: Cello—Mr. P. J. Palmer, "Madrigal" (Squire).
 9.0: Weather report and station notices.
 9.2: Contralto—Mrs. A. H. Ritchie, (a) "Ring, Bells, Ring" (Day), (b) "Whatever Is, Is Best" (Lohr), (c) "Break, Break, Break" (Carey).
 9.11: 4YA Trio, "Adagio Expressivo" (Schumann); "Norwegian Dance."
 9.23: Tenor—Mr. R. A. Mitchell, "The Diver" (Schirmer), (b) "Romance" (Flotow), (c) "The Old Refrain" (Kreisler).
 9.33: Dance session:
 Foxtrots—Cova Cavaliers, "Right or Wrong, I'm Still in Love with You" (Gillespie-Sizemore).
 New Yorkers, "Go Get 'Em Caroline" (Cremare-Myer).
 Cova Cavaliers, "Have a Little Faith in Me."
 New Yorkers, "Love" (Goulding-Janis).
 9.42: Waltz—Al Hopkins's Buckle-Busters, "Marosovia Waltz" (Belcher).
 Foxtrots—New Yorkers, "Ev'rything's Rosey Now" (Herscher-Blank).
 Jack Montrose's Orchestra, "Egypt" (Costello-Seamon).
 New Yorkers, "Harmonica Harry" (Phil Baxter).
 9.54: Vocal—Mildred Grizelle, "Under the Spell of the Moon."
 9.57: Foxtrots—Zenith Knights, "Should I?" (Freed-Brown).
 Cova Cavaliers, "Those Old Sweethearts of Mine."
 Zenith Knights, "My Blue Ridge Mountain Home."
 Cova Cavaliers, "Like a Dream" (Rose, Russell, Solomon).
 10.9: Polka—Al Hopkins and His Buckle-Busters, "Polka Medley."
 Foxtrots—Carl Fenton and His Orchestra, "Sing, You Sinners."
 Zenith Knights, "We'll Be Married in June."
 George Posnack and Orchestra, "Black Horse" (Tarto).
 10.21: Vocal—Tommy Weir, "Waiting Through the Night."
 10.24: Foxtrots—Broadway Players, "Watching My Dreams Go By."
 Carl Fenton and His Orchestra, "Keep on the Sunny Side."
 Zenith Knights, "Where the Golden Daffodils Grow."
 George Posnack and Orchestra, "Whippoorwill" (De Voll).
 10.36: Waltz—Eight Radio Stars, "Always in My Heart" (Drew-Perry).
 Foxtrots—Carl Fenton and His Orchestra, "Apart from You."
 The New Yorkers Orchestra, "Because I'm Lonesome."
 10.45: Vocal—Mildred Grizelle, "So Sympathetic" (Kahn-Archer).
 10.48: Foxtrots—Cova Cavaliers, "Telling it to the Daisies."
 Carl Fenton and His Orchestra, "Exactly Like You."
 George Dobkins and His Orchestra, "Love Me in My Dreams"
 The New Yorkers Orchestra, "Ro-Ro-Rolling Along."
 11.0: God save the King.

Thursday, December 11

1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, DECEMBER 11.

- 3.0: Afternoon session—Selected studio items, including Literary selection by the Announcer.
 3.15: Lecturette—"Shoes." Talk arranged by Home Science Extension Service Otago University.
 5.0: Children's session, conducted by "Peter Pan."
 6.0: Dinner session.
 New Mayfair Orchestra, "Lilac Time" (Schubert, arr. Clutsam).
 San Francisco Symphony Orchestra, (a) "Serenade" (Moskowski); (b) "Aubade" (Auber).
 6.14: Tacet.
 6.15: Creator's Band, "Semiramide" Overture (Rossini).
 New Light Symphony Orchestra, "Spanish Serenade" (Bizet), "Narcissus" (Nevin).
 6.29: Tacet.
 6.30: San Francisco Symphony Orchestra, "Liebesleid" (Kreisler); "Valse De Concert" (Glazounov).
 New Light Symphony Orchestra, "Spring Song" (Mendelssohn).
 6.44: Tacet.
 6.45: National Symphony Orchestra, "William Tell" Overture (Rossini).
 New Light Symphony Orchestra, "Spanish Dance No. 1" (Moszkowski).
 6.58: Tacet.
 7.0: News and market reports.
 7.40: Talk—R. S. Langton, "Afforestation in New Zealand."
 8.0: Chimes.
 Selection—Jack Hylton's Orchestra, "The Selfish Giant" (Coates).
 8.9: Vocal trio—The Celeste Trio, (a) "La Carita" (Rossini); (b) "Estudiantina" (Lacome).
 8.18: March—Orchestral Octet, under direction of Mr. Harold Baxter, "Triana" (Lope) Overture—"Bohemian Girl" (Balfe).
 8.28: Novelty—Eric and Jack, (a) "So Blue" (De Sylva), (b) "Your Mother and Mine" (Edwards).
 8.36: Selection—Orchestral Octet, "Maid of the Mountains" (Simpson).
 8.45: Talk—Mr. A. B. Chappell, M.A. "Topical Talk."
 9.0: Evening weather forecast and announcements.
 9.2: March—Band of H.M. Coldstream Guards, "Youth and Vigour" (Lautenschlager) Selection—"Florodora" (Stuart).
 9.10: Vocal—The Celeste Trio, (a) "Tea, Tea, Tea" (from "The Cingalee") (Monckton), (b) "Nursery Rhyme Suite" (Custance).
 9.17: Flute, Cello and Organ—Mr. Julian Dunn, Miss Lalla Hamus and Mr. Eric F. B. Waters, "Serenade" (Titi).
 9.23: Novelty piano and vocal—Eric and Jack, (a) "It Happened in Monterey" (Rose-Wayne), (b) "I'd Climb the Highest Mountain."
 9.31: Concert piece—Orchestral Octet, "Keltic Lament" (Foulds).
 9.42: Novelty—Orchestra and Chorus, "John Peel" (Flynn).
 9.48: Fantasia—Orchestra Octet, "Darkey's Dreamland" (Bidgood).
 10.0: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, DECEMBER 11.

- 3.0: Chimes. Selected studio items.
 3.15: Lecturette—Miss I. F. Meadows, "Shoes"—talk arranged by the Home Science Extension Department of Otago University.
 3.30 and 4.30: Sporting results to hand.
 4.55: Close down.
 5.0: Children's session conducted by "Uncle George" and "Big Brother Jack."
 6.0: Dinner music session:
 New Light Symphony Orchestra, "Merry Wives of Windsor" (Nicolai).
 Waltz—Marek Weber's Orchestra, "Moonlight on the Alster" (Fetras).
 6.12: Tacet.
 6.15: Intermezzo—New Light Symphony Orchestra, "Hearts and Flowers."
 Waltz—Marek Weber's Orchestra, "Wine, Women, and Song" (Weber).
 Wurlitzer organ solo—Reginald Foort, "By the Blue Hawaiian Waters."
 6.26: Tacet.
 6.30: New Light Symphony Orchestra, "The Glow-Worm Idyll" (Lincke).
 Victor Salon Orchestra, "Indian Love Call" (from "Rose Marie"—Friml); "The World is Waiting for the Sunrise" (Lockhart).
 De Groot and His Orchestra, "When Summer is Gone."
 6.43: Tacet.
 6.45: De Groot's Orchestra, "The Merry Widow" (Lehar).
 Wurlitzer organ solos—Reginald Foort, (a) "Leave Me Alone," (b) "Songs My Mother Taught Me" (Dvorak).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—The Director, Dental Division, Department of Health, "Public Dental Services in New Zealand."
 8.0: Chimes. A studio concert by the Band of the Wellington Division of the Royal Naval Volunteer Reserve (by permission of the Officer Commanding) and 2YA artists.
 Columbia Symphony Orchestra—"Bridal Chorus" from "Lohengrin."
 March—Band (Conductor, Petty Officer H. Baker), "Old Comrades."
 8.5: Soprano with flute obligato by Mr. V. R. Brown—Mrs. E. F. Hollands, "The Wren" (Benedict).
 8.9: Violin—Fritz Kreisler, "La Vida Breve" (De Falla, arr. Kreisler); "Tango" (Albeniz, arr. Kreisler).
 8.15: Baritone—Mr. S. E. Rodger, "The Corporal's Ditty" (Squire).
 8.19: Cornet with band—Bandsman McPherson, "Sweet Spirit, Hear My Prayer" (Wallace).
 8.24: Sketch—Miss Linnie Nicholas and Mr. Vryn Evans, "The Art of Love."

- 8.31: Selection—Band, "English Songs" (Morton).
 8.41: Contralto—Mrs. Dorothy Murray, "Yonder" (Oliver).
 8.45: Flute—Mr. V. R. Brown, "Gipsy Dance" (German).
 8.49: Tenor—Mr. Will Hancock, (a) "Mourneen Mavourneen" (Trinkhaus), (b) "Passing By" (Purcell).
 8.54: Waltz—Band, "The Grenadiers" (Rimmer).
 9.0: Weather report and station notices.
 9.1: Soprano—Mrs. E. F. Hollands, (a) "Wings" (D'Hardelot), (b) "The Dove" (Landon Ronald).
 9.7: Organ—Sydney Gustard, "Phantom Melody" (Ketelbey); "Air de Ballet" (Chaminade).
 9.13: Baritone—Mr. S. E. Rodger, (a) "The Snowy-Breasted Pearl" (Robinson), (b) "A Sprig of Beronia" (Hull).
 9.19: Selection—Band, "The Magic Flute" (Mozart).
 9.29: Sketch—Miss Linnie Nicholas and Mr. Vryn Evans, "The Little Wretch" (Anthony Hope).
 9.36: Flute—Mr. V. R. Brown, "Allegretto" (Godard).
 9.40: Contralto—Mrs. Dorothy Murray, (a) "The Last Hour" (Kramer), (b) "Not Understood" (Houghton).
 9.46: Euphonium—Bandsman Wiri Baker, "The Village Blacksmith."
 9.54: Tenor—Mr. Will Hancock, (a) "The Garden of Your Heart" (Dorel), (b) "Red Devon by the Sea" (Coningsby Clarke).
 9.57: March—Band, "The Old Regiment" (Thomas).
 10.1: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, DEC. 11.

- 3.0: Afternoon session gramophone recital.
 3.15: Lecture—"Shoes." Arranged by Home Science Extension Service, Otago University.
 4.25: Sports results.
 5.0: Children's Hour, conducted by Ladybird and Uncle Frank.
 6.0: Dinner session.
 Royal Opera Orchestra, "Carmen" Entracte Act. 4 and Ballet No. 1.
 Piccadilly Orchestra, "My Beloved Gondolier" (Tibor).
 London Symphony Orchestra, "Chanson De Matin" (Elgar).
 Trio—Fritz and Hugo Kreisler, Michael Rauchaussen, "Marche Miniature Viennois" (Kreisler).
 6.14: Tacet.
 6.15: National Symphony Orchestra, "Light Cavalry" Overture (Suppe).
 Royal Opera Orchestra, "Carmen" Ballet No. 2 (Bizet).
 Piccadilly Orchestra, "Souvenir Di Carpi" (Becce).
 6.29: Tacet.
 6.30: Philadelphia Symphony Orchestra, "Invitation to the Waltz" (Weber).
 New Symphony Orchestra, "Pastoral Dance From Nell Gwynn."
 Trio—Fritz and Hugo Kreisler, Michael Rauchaussen, "Syncopation."
 6.44: Tacet.
 6.45: London Symphony Orchestra, "Chanson De Nuit" (Elgar).
 Berlin State Opera Orchestra, "The Beautiful Galathea" Overture.
 New Symphony Orchestra, "Country Dance" (from "Nell Gwynn").
 6.59: Tacet.
 7.0: News session.
 7.30: Lecture—Mr. R. L. James (Agricultural College Lincoln) "Farmers' Methods of Levelling and Draining."
 8.0: Chimes. Special programme by Canterbury Repertory Society.
 Overture—Band of H.M. Scots Guards, "Whispering of the Flowers."
 8.3: Contralto—Mrs. Ann Harper, (a) "The Carpet" (Sanderson), (b) "Mignon" (Ambrose-Thomas).
 8.9: Trio—Broadcasting Trio, "Second Trio" (Carl Reinecke).
 8.21: Play—Repertory members, "The Voice of the People."
 8.36: Cello—Mr. Harold Beck, (a) "Le Cygne" (Saint Saens), (b) "Apres Un Reve" (Faure).
 8.42: Poems—Professor J. Shelley, "Selected Poems" (Masefield).
 8.52: Broadcasting Trio, (a) "Warum" (Schumann), (b) "Song Without Words" (Mendelssohn), (c) "Menuetto" (Borrensens).
 9.2: Weather forecast and station notices.
 9.4: Baritone—Mr. J. Tennant, (a) "The Lute Player" (Francis), (b) "Youth" (Francis-Allitsen).
 9.11: Play—Repertory members, "The Daughter" (Alan Mulgan).
 9.31: Dance music until 11 p.m.
 Foxtrots—Paul Tremaine and His Orchestra, "Hand Me Down My Walkin' Cane" (Arr. Tremaine).
 Paul Whiteman and His Orchestra, "Happy Fleet."
 Ray Starita and His Ambassadors Band, "Ev'ry Little Moment" (Newman-Grey-Ellis).
 Paul Whiteman and His Orchestra, "A Bench in the Park."
 9.42: Waltzes—Russian Novelty Orchestra, "Greetings of Spring."
 Novelty Dance Orchestra, "Sobbing Waltz."
 9.48: Vocal—James Melton, "Neapolitan Nights."
 9.51: Foxtrots—Ben Selvin and His Orchestra, "The Woman in the Shoe."
 Paul Whiteman and His Orchestra, "Should I?" (Brown).
 The Rhythmic Troubadours, "On Her Doorstep Last Night."
 10.0: Waltzes—Paul Whiteman and His Orchestra, "A Bundle of Old Love Letters" (Brown).
 Moana Orchestra, "Imi Au Ia Oe" (King).
 Foxtrots—The Rhythmic Troubadours, "Fairly on the Clock."
 Ben Selvin and His Orchestra, "Only Love is Real" (Brown-Freed).
 10.12: Vocal—Ernest Hastings, "Perverved Placards" (Bateman-Hastings).
 10.15: Foxtrots—Paul Specht and His Orchestra, "The Harbour of My Heart" (Youmans).
 Gil Dech and His Syncopators, "Let's Be Common."
 Paul Specht and His Orchestra, "Keepin' Myself For You."

- Ray Starita and His Ambassadors Band, "Spread a Little Happiness" (Grey-Newman and Ellis).
 10.27: Waltzes—Russian Novelty Orchestra, "The Love of a Gypsy."
 Novelty Orchestra, "First Love Waltz."
 10.33: Foxtrots—Ben Selvin and His Orchestra, "Song of the Islands."
 Moana Orchestra, "For You a Lei" (Noble-Hyatt).
 Gil Dech and His Syncopators, "Nobody's Using It Now."
 10.42: Vocal—James Melton, "Dear Little Mother of Mine" (Jayne-Sterling).
 10.45: Foxtrots—Guy Lombardo and His Royal Canadians, "With You."
 Will Osborne and His Orchestra, "I Knew We Two Were One" (Denniker and Osborne).
 Guy Lombardo and His Royal Canadians, "There's Danger in Your Eyes, Cherie" (Richman, Meskill and Wendling).
 Waltzes—Moana Orchestra, "My Hawaiian Souvenir" (King).
 Vic Meyer and His Band, "If I'm Dreaming" (Burke).
 11.0: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, DECEMBER 11.

SILENT DAY.

Friday, December 12

1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, DECEMBER 12.

- 3.0: 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.
 Royal Italian Band, "Marcia Reale" (Gabetti).
 Court Symphony Orchestra, "In Venice" (Sellars).
 Organ—Stanley MacDonald, "Was It a Dream?" (Coslow).
 Royal Italian Band, "Garibaldi's Hymn" (Olivieri).
 6.12: Tacet.
 6.15: Ketelbey's Concert Orchestra, "Sanctuary of the Heart" (Ketelbey).
 Cello—W. H. Squire, "Melody in F" (Popper).
 6.26: Tacet.
 6.30: W. H. Squire's Celeste Octet, "Mignon." 1—Introduction and Romance; 2—Polonaise (Thomas).
 Cello—W. H. Squire, "Silver Threads Among the Gold."
 6.42: Tacet.
 6.45: H.M. Grenadier Guards, "Turkish Patrol" (Michaelis).
 Organ—Stanley MacDonald, "Nicolette" (Batten).
 Jacque Jacobs Ensemble, "Weiner Blut" (Strauss).
 H.M. Grenadier Guards Band, "Smithy in the Woods" (Michaelis).
 6.58: Tacet.
 7.0: News and market reports.
 8.0: Chimes.
 March—Orchestral Octet, under direction of Mr. Harold Baxter, "The Middy" (Alford).
 Overture—Octet, "Stradella" (Flotow).
 8.11: Tenor—Mr. Roy Dormer, "Did'st Thou But Know" (Balfé).
 Duet—Messrs. Roy Dormer and Eric Mannall, "The Sweetest Flower that Blows" (Hawley).
 Baritone—Mr. Eric Mannall, "The Little Irish Girl" (Lohr).
 8.21: Lecture-recital—A Commentator, Gramophone Lecture-recital: "Latest Recordings."
 8.36: Eastern dance—Orchestral Octet, "Chang" (Finck); waltz, "Valse Intermezzo" (Steck); tango, "El Saludo" (Ancliffe).
 8.51: Quartet—The New Zealand Four, "Sally in Our Alley" (Carey-Parks); "Old Time Medley" (Parks); "De Coppah Moon" (Shelley).
 9.2: Evening weather forecast and announcements.
 9.4: Selection—Orchestral Octet, "Tales of Hoffmann" (Offenbach).
 9.16: Elocution—Miss Nina Scott, (a) "Earthenware" (Hastings); (b) "Omely" (Herbert); (c) "Godiva" (Tennyson).
 9.27: Tenor—Mr. J. Simpson, (a) "Dolorosa" (Phillips); (b) "A Heap of Roseleaves" (Willeby).
 Duet—Messrs. J. Simpson and A. Gibbons Taylor, "Where My Caravan Has Rested" (Lohr).
 Bass—Mr. A. Gibbons Taylor, "The Carol Singers" (Bennett).
 9.37: Fantasia—Orchestral Octet, "The Water Melon Patch" (Bidgood).
 9.47: Gramophone Lecture-recital—A Commentator, "Latest Recordings."
 10.2: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, DECEMBER 12.

- 3.0: Chimes. Selected studio items.
 3.30 and 4.30: Sporting results to hand.
 5.0: Children's session, conducted by Uncle Jim and Story Book Lady.
 6.0: Dinner music session.
 Berlin State Opera Orchestra, "Mignon" (Thomas).
 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.
 Grand Symphony Orchestra, "Fra Diavolo" (Auber); "Tales of Hoffman—Entracte and Minuet" (Offenbach).

6.57: Tacet.

7.0 : News session, market reports and sports results.

7.40: Lecturette—Mr. Colin W. Smith, B.A., "Trouble Tracking."

8.0 : Chimes. Note: This programme may be interrupted to permit of a relay of a Sound Film Feature from the Majestic Theatre.

Overture—Orchestra (Conductor, Signor A. P. Truda), "Sunshine Overture" (Bockley).

Selection—Orchestra, "Lola" from "Berlin" (Banks); "Bits and Pieces" (arr. Baynes).

Contralto—Mrs. Ray Kemp, (a) "The Song of the Mill" (from "The Girl on the Film") (Fredschneider); (b) "One Fleeting Hour."

Duet—Mr. and Mrs. Ray Kemp, "The Bad Boy and the Good Girl" (from "The Quaker Girl") (Monckton).

Popular songs with ukulele accompaniment—Mrs. R. M. Cummins, (a) "Telling It to the Daisies" (Warren); "Indiana Skies" (Marr and Manors); (c) "Medley of Popular Song Choruses."

Selection—Orchestra, "Lightning Switch" (Alford); "Katja, the Dancer" (Gilbert).

Humour—Mr. Will Yates, "Spring Broadcasts" (Anon.), "This Motor Age" (original).

Weather report and station notices.

Jazz piano—Mr. J. F. Skeddon, (a) "Coaxing the Piano" (Confrey); (b) "Old Fashioned Locket" (Wimbrow, Marvin and Ford); (c) "I'll Always Be in Love With You" (Ruby, Green, and Stept).

Baritone—Mr. Ray Kemp, (a) "The Irish Orchestra" (Tovey); (b) "My Yorkshire Lassie" (from "Our Miss Gibbs") (Monckton).

Duet—Mr. and Mrs. Ray Kemp, "Half Past Two" (from "The Arcadians" (Monckton-Talbot).

Spanish dance—Orchestra, "Danse di Mada" (Leith).

Foxtrot—Orchestra, "Maisie" (Monte Carlo).

9.50: Dance programme.

Foxtrots—Ben Selvin and His Orchestra, "Around the Corner."

Gil Dech and His Syncopators, "You Can't Be Unhappy if You Sing" (Barry and Carr).

Paul Specht and His Orchestra, "Santiago."

Stellar Dance Band, "Minnie's Yoo-Hoo" (W. Stalling).

9.42: Waltz—The Four Bright Sparks, "Eleanor" (McCarthy, Hanley).

Foxtrots—Van Phillips and His Band, "Just Like in a Story Book."

Gil Dech and His Syncopators, "Bridge of Our Dreams Come True" (Monk).

9.51: Vocal duet—Sweet and Low Duettists, "By the Waters of Killarney."

9.54: Foxtrots—Ipana Troubadours, "Cooking Breakfast for the One I Love."

Columbia Photo Players, "Leave It That Way."

Ipana Troubadours, "Kickin' a Hole in the Sky."

Columbia Photo Players, "The Whole Darned Thing's For You" (Ahlert and Turk).

10.6 : Waltz—Ferera's Hawaiian Trio, "Lazy Lou'siana Moon."

Foxtrots—Paul Specht and His Orchestra, "Into My Arms."

The Four Bright Sparks, "High Society Blues."

10.15: Vocal—Oavan O'Connor, "The Sunshine of Marseilles."

10.18: Foxtrots—The Columbia Photo Players, "The Free and Easy."

Frank Ferera's Hawaiian Trio, "Pale Blue Waters."

Stellar Dance Band, "The Toy Farm-yard."

Paul Whiteman and His Orchestra, "Livin' in the Sunlight" (Sherman and Lewis).

10.30: Waltzes—Stellar Dance Band, "I Feel You Near Me."

Foxtrots—The Columbia Photo Players, "It Must Be You."

Ben Selvin and His Orchestra, "With My Guitar and You."

Paul Whiteman and His Orchestra, "You Brought a New Kind of Love to Me" (Fain, Kahal and Norman).

Stellar Dance Band, "A Pair of Blue Eyes" (Kernell).

10.45: Vocal duet—Sweet and Low Duettists, "Just an Old Refrain."

10.48: Foxtrots—Van Phillips and His Band, "I'm in the Market for You."

Gil Dech and His Syncopators, "Johnnie, Our Aeroplane Girl" (Lumsdaine).

Debroy Somers Band, "Figaro" (Mitchell and Motzan).

Gil Dech and His Syncopators, "A Lone Girl Flyer."

11.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—FRIDAY, DECEMBER 12.

3.0 : Afternoon session—Gramophone recital.

4.25: Sports results.

5.0 : Children's hour—"Chuckie."

6.0 : Dinner session.

March—National Military Band, "National Emblem" (Bagley).

'Cello—W. H. Squire, "The Broken Melody" (Van Biene).

Albert Sandler's Orchestra, "I Kiss Your Hand, Madame" (Erwin).

Cinema organ—G. T. Pattman, "Cherie Waltz" (Valentine).

6.12: Tacet.

6.15: Court Symphony Orchestra, "The Gondoliers" (Sullivan).

Paul Whiteman's Orchestra, "Gypsy" (Gilbert).

6.27: Tacet.

6.30: Albert Sandler's Orchestra, "Chalita" (Schertzing).

Padilla's Marimba Serenaders, "Parce" (Padilla).

Piano—Gil Dech, "Sometimes I'm Happy" (Youmans).

Royal Serbian Tambouritz Orchestra, "Serbian Melody."

6.42: Tacet.

6.45: Intermezzo—Ketelbey's Orchestra, "Bells Across the Meadow."

Rio Marimba Serenaders, "Dolores" Waltz (Waldteufel).

Organ—G. T. Pattman, "Worryin' Waltz" (Fairman).

March—National Military Band, "Stars and Stripes" (Sousa).

6.57: Tacet.

7.0 : News session.

8.0 : Chimes. Overture—Victor Arden and Phil Ohman Orchestra, Selection from "Funny Face" (Gershwin).

8.8 : Soprano—Miss Lottie Colville, (a) "The Spring has Brought the Flowers Again" (Weekes), (b) "Wood Fairies" (Jones).

8.14: Cornet—Black Dyke Mills Band, "The Marionettes" (Windsor).

8.17: Tenor—Mr. Syd. Andrews, "Lolita" (Buzzi-Pecchia).

8.21: Studio Octet (Conductor, Harold Beck), "Crown Diamonds" Overture.

8.30: Chorus—Famous Forty Elks Chorus, "Sylvia" (Scollard-Speaks).

Accordeon—Pietro, "Tres Jolie" (Waldteufel).

8.36: Mezzo-soprano—Mrs. J. A. Stewart, (a) "Gather Ye Rosebuds" (Sanderson), (b) "If My Dream Ship Came Home" (Daisy McGeoch).

8.40: Selection—Black Dyke Mills Band, "Paddy's Patrol" (Dacre).

8.43: Humorous sketch—The Mascots, "The Reason Why" (Barry Pain).

8.53: Studio Octet, "Bells of Somerset" (Hurst).

9.0 : Weather report and station notices.

9.2 : Percival Mackey's Band, "The Vagabond King" (Friml).

9.10: Soprano—Miss Lottie Colville, "His Majesty the Baby" (Charles).

9.14: Studio Octet, Musical Comedy Selection, "Katinka" (Friml).

9.27: Tenor—Mr. Syd. Andrews, (a) "Oh, Lovely Night" (Ronald), (b) "Nothing Venture" (Montague Phillips).

9.33: Humorous sketch—The Mascots, "A Christmas Story—Reconciliation."

9.43: Studio Octet, jazz numbers, (a) "South Sea Rose" (Gilbert-Baer), (b) "Lonesome Little Doll" (Cowan-Boutelle).

9.51: Mezzo-soprano—Mrs. J. A. Stewart, (a) "Sunshine and Shadow" (Hampson), (b) "From the Land of the Sky-Blue Water."

9.56: Studio Octet, "Valse Bleue" (Margis).

10.1 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, DECEMBER 12.

3.0 : Chimes. Selected gramophone items.

4.25: Sporting results.

5.0 : Chimes. Children's hour, conducted by Aunt Sheila.

6.0 : Dinner session.

Boston Symphony Orchestra, "Frühlingstimmen" Johann Strauss).

Organ—Jesse Crawford, "Serenade" (Romberg).

National Military Band, "Ben Hur" (Byng).

6.13: Tacet.

6.15: Vienna Philharmonic Orchestra, "Dorfschwalben" (Strauss).

International Quartet, "Teddy Bears' Picnic" (Bratton).

Jack Hylton and His Orchestra, "Steppin' Out" (Vauchant).

6.29: 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."

6.59: Tacet.

7.0 : News session.

8.0 : One-step—Debroy Somers' Band, (a) "Scottish Medley" (Somers), (b) "American Medley" (Somers).

Marimbaphone—Mr. H. Dalziel, (a) "Under the Double Eagle" (Wagner); novelty, (a) "Stein Song" (Colcord).

8.15: Song cycle—Celeste Four, "Flora's Holiday" (Lane-Wilson).

8.31: Instrumental—4YA Trio, "Scherzo in D, Op. 49" (Mendelssohn).

'Cello—Mr. P. J. Palmer, "Serenata" (Moszkowski).

Trio—"Ave Maria" (Schubert).

8.46: Soprano—Miss Rita Holmes, (a) "Wild Flower" (Youmans), (b) "Roses of Yesterday" (Berlin).

Duet soprano and bass—Miss Holmes and L. Cachemaille, "The Manly Heart" (from "The Magic Flute" (Mozart).

Bass—Mr. L. M. Cachemaille, (a) "A Thought" (Woolman), (b) "Topsail Halyards" (Harry).

9.1 : Weather report.

9.3 : Selection—London Theatre Orchestra, "The Maid of the Mountains."

9.11: Marimbaphone—Mr. H. Dalziel, "Two Latest Hits."

9.15: Sketch—Miss Isobel McGregor and Miss E. Newbold, "Square Pegs."

9.30: Trio—(a) "Fourth Trio" (Hemmel), (b) "Serenade" (Arensky), (c) "Valse" (Scott).

9.44: Contralto—Miss B. Rawlinson, (a) "Love in My Youth" (Howard), (b) "Faith in Spring" (Schubert).

Tenor—Mr. James Simson, (a) "Let Me Like a Soldier Fall" (Wallace), (b) "In an Old-Fashioned Town" (Squire).

9.57: Selection—The Rhythmic Troubadours, "Song of the West" (Youmans).

10.0 : God save the King.

Saturday, December 13

1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, DECEMBER 13.

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.
New Symphony Orchestra, "Toy Symphony" (Rombert).
Concert Orchestra, "Minuet" (Boccherini).
International Novelty Orchestra, "Lazy Pete" (Kersten).
- 6.13 : Tacet.
- 6.15 : Zonophone Salon Orchestra, "Old Rustic Bridge" (Skelly).
International Novelty Orchestra, "Eva" Waltzes (Lehar).
Organ—Sidney Gustard, "Cuckoo" (Jonasson).
International Novelty Quartet, "Over the Waves" (Rosas).
- 6.28 : Tacet.
- 6.30 : International Novelty Orchestra, "Carmen Sylva" (Ivanovici).
Zonophone Salon Orchestra, "Killarney" (Balfe).
International Novelty Orchestra, "Parade of the Wooden Soldiers."
International Novelty Quartet, "See Me Dance the Polka."
- 6.43 : Tacet.
- 6.45 : Concert Orchestra, "Sous Bois" (Staub).
Organ—Sandy Macpherson, "I Promise" (Hirsch, Wilhite).
National Symphony Orchestra, "Zampa" Overture, Parts 1 and 2.
- 6.58 : Tacet.
- 7.0 : News and market reports.
- 7.40 : Talk—Mr. G. D. Rutter, "Gladioli."
- 8.0 : Chimes. Relay—Concert by the Auckland Municipal Band, under the conductorship of Mr. Hal McLennan.
- 10.0 (Approx.)—Programme of Dance Music from the Studio.
Foxtrots—Jack Payne and His B.B.C. Dance Orchestra, "The Punch and Judy Show" (Black).
O'Leary's Irish Minstrels, "The Pigeon on the Gate."
Jack Payne and His B.B.C. Dance Orchestra, "Crazy Pirouette" (Frisk).
Waltz—O'Leary's Irish Minstrels, "My Wild Irish Rose."
- 10.12 : Foxtrots—Ray Starita and His Ambassadors Band, "My Dream Memory" (Clare, Levant).
Jan Garber and His Orchestra, "When a Woman Loves a Man" (Rainger Rose).
Vocal—Len Maurice, "A Little Kiss Each Morning" (Woods).
- 10.21 : Foxtrots—The Four Bright Sparks, "Hard to Get."
Ben Selvin and His Orchestra, "How Am I to Know?"
Guy Lombardo and His Royal Canadians, "Singin' in the Bathtub" (Magidson, Washington, Cleary).
- 10.30 : Waltz—Will Osborne and His Orchestra, "There will Never be Another Mary" (Ager, Yellen).
Foxtrots—Guy Lombardo and His Royal Canadians, "A Little Kiss Each Morning" (Woods); "Under a Texas Moon."
- 10.39 : Vocal—Len Maurice, "Gay Love" (Clare, Levant).
Waltzes—Paul Whiteman and His Orchestra, "It Happened at Monterey" (Yellen, Ager).
Moana Orchestra, "My Hawaiian Isles" (Noble).
- 10.48 : Foxtrots—The Four Bright Sparks, "The Kerb Step."
Paul Whiteman and His Orchestra, "Song of the Dawn."
Moana Orchestra, "Dreamy Hula Town" (Collins, Carlson).
Ted Lewis and His Band, "Lady Luck" (Perkins).
- 11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, DECEMBER 13.

- 3.0 : Chimes. Selected studio items.
- 3.30 and 4.30 : Sporting results to hand.
- 5.0 : Children's session.
- 6.0 : Dinner music session.
Royal Opera Orchestra, "Praeludium" (Jarnefeldt).
Cello—Pablo Casals, "Melody in F" (Rubinstein).
Waltz—Royal Opera Orchestra, "Eugénie Onegin" (Tchaikowsky).
Balalaika Orchestra, "Shining Moon" (Russian Folk Song).
- 6.12 : Tacet.
- 6.15 : Paul Whiteman's Orchestra, "Suite of Serenades" (Herbert), 1. Spanish; 2. Chinese; 3. Cuban; 4. Oriental.
Waltz—Philadelphia Symphony Orchestra, "Tales From the Vienna Woods" (Strauss).
- 6.27 : Tacet.
- 6.30 : Royal Opera Orchestra, "Berceuse" (Jarnefeldt).
Cello—Pablo Casals, "Traumerei" (Schumann).
Male Quartet—The Rounders, "Chlo-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).
- March—San Francisco Symphony Orchestra, "Marche Militaire."
- 6.57 : Tacet.
- 7.0 : News session, market reports and sports results.
- 8.0 : Chimes. A Christmas programme of optimism and good cheer by the Wellington Y.M.C.A. Optimists' Club. The club will be assisted by the Salon Orchestra, which will play under the conductorship of Mr. M. T. Dixon.
- 10.0 : Dance programme.
Foxtrots—Arcadians Dance Orchestra, "Always" (Ruby-Jerome).
George Olsen and His Music, "Sweet Nothings of Love."
Arcadians Dance Orchestra, "At the End of the Lonesome Trail" (Ruby-Perkins).
Ted Weems and His Orchestra, "Slappin' the Bass."
- 10.12 : Waltz—Regent Club Orchestra, "Underneath the Russian Moon."
Foxtrots—Johnny Hamp's Kentucky Serenaders, "Lady Luck."
Victor-Arden, Phil Ohman and Their Orchestra, "Why?"

- 10.21 : Vocal—Frank Luther, "The Moon is Low" (Freed).
- 10.24 : Foxtrots—New Mayfair Dance Orchestra, "She's My Slip of a Girl."
Leo Reisman and His Orchestra, "Mia Cara."
Victor Arden, Phil Ohman and Their Orchestra, "It's You I Love" (Davis, Coots, Swanstrom).
- 10.33 : Waltzes—Regent Club Orchestra, "Dear When I Met You."
Rudy Vallee and His Connecticut Yankees, "Sweet Susanne" (Leslie-Gilbert).
Foxtrots—New Mayfair Dance Orchestra, "Spread a Little Happiness."
Nat Shilkret and His Orchestra, "May I Say 'I Love You'?"
- 10.45 : Vocal—Johnny Marvin, "Lucky Me, Lovable You."
- 10.48 : Foxtrots—The High Hatters, "Singin' in the Bathtub."
New Mayfair Dance Orchestra, "In an Old World Garden."
Nat Shilkret and His Orchestra, "Cross Your Fingers"
The High Hatters, "Duke of Ka-Ki-Ak."
- 11.0 : Sporting summary.
- 11.10 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, DECEMBER 13

- 3.0 : Afternoon session—Gramophone recital.
- 4.25 : Sports results.
- 5.0 : Children's hour, "Aunt Pat and Uncle Charlie."
- 6.0 : Dinner session.
New Mayfair Orchestra, "Follow Through" Selection.
Cello—Pablo Casals, "Spanish Dance" (Granados, arr. Casals).
Novelty Orchestra, "Ginger Snaps" (Bourdon).
- 6.13 : Tacet.
- 6.15 : Victoria Orchestra, "La Serenata" (Metra).
Kirilloff's Balalaika Orchestra, "Medley of Old Time Songs."
Organ—Jesse Crawford, "How Am I to Know?" (Parker, King).
- 6.29 : Tacet.
- 6.30 : Vienna Philharmonic Orchestra, "Die Fledermaus" Du Und Du.
Organ—Jesse Crawford, "I'll Close My Eyes to the Rest of the World."
Novelty Orchestra, "Midnight Bells" (Heuberger).
- 6.44 : Tacet.
- 6.45 : Novelty Orchestra, "Passion Rose" (Lehar).
Victoria Orchestra, "Espanita" (Rosey).
Cello—Pablo Casals, "Vito" (Spanish Dance), Op. 54, No. 5.
Novelty Orchestra, "Danse Bagatelle" (Bourdon).
- 6.58 : Tacet.
- 7.0 : News session.
- 7.30 : Sports results.
- 8.0 : Chimes.
Overture—Herman Finck and His Orchestra, "Old and New Potpourri of Popular Melodies" (arr. Finck).
- 8.8 : Tenor—Mr. Oliver Foote, (a) "The Little Grey Home in the West" (Loehr); (b) "Two Eyes of Grey" (McGeoch); (c) "Doreen."
- 8.18 : Hawaiian steel guitars and ukulele—Elaine Moody's Hawaiian Trio, (a) "I'm Following You" (Dreyer-MacDonald); (b) "When the Organ Played at Midnight" (Connelly); (c) "Crying for the Carolines" (Warren). (Vocal refrains by Elaine Moody).
- 8.27 : Soprano—Miss Cicely Audibert, (a) "Boat Song" (Ware); (b) "Sing Heigho" (Ketelbey); (c) "Cherie I Love You" (Goodman); (d) "Love's Cigarette" (from "Southern Maid") (Fraser-Simson).
- 8.38 : Flute—Mr. W. Hay, (a) "Fantasia on English Airs" (Pratten); (b) "Allegretto" (Harmston).
- 8.48 : Humour in song and story—Mr. Jock Lockhart, introducing: (a) "The Tale of a Guinea Pig" (Newman-Gideon); (b) "Please! Don't Take My Wife" (Long).
- 9.0 : Weather forecast and station notices.
- 9.2 : Banjo—Mr. Stan Birch, selection from "Faust" (Gounod).
- 9.11 : Mr. Finlay Robb, (a) "Scatterpenny" (Roy Thomson); (b) "A Vagabond's Song" (Cundell); (c) "Were You There?" (arr. Manney); (d) "My Old Gray Mare" (arr. Newton).
- 9.21 : Steel guitars and ukulele—Elaine Moody's Hawaiian Trio, (a) "Have a Little Faith in Me" (Warren); (b) "Eleanor" (Hanley); (c) "We're Comfortable" (Wallace). (Vocal refrains by Elaine Moody.)
- 9.30 : Male chorus—Minstrels, "A Minstrel Show."
- 9.38 : Cornet—Mr. Norman Goffin, (a) "Softly Awakes My Heart" (Saint-Saens) (from "Samson and Delilah"); (b) "Sweet Spirit Hear My Prayer" (from "Maritana") (Wallace).
- 9.48 : Tangos—Rio Novelty Orchestra, "Spaventa" (Van Parys); "Mientras Lloro El Tango" (Courau).
Selection—New Mayfair Orchestra, "Sally" (Kern).
- 10.0 : Dance Music until 11 p.m. "Edison Bell" hour.
Foxtrots—Harry Hudson's Melody Men, "A Bench in the Park."
Alfredo and His Band, "Fancy You Falling for Me"; "My Fate is in Your Hands" (Razaf, Waller).
- 10.9 : Waltz—Radio Melody Boys, "What Have I Done?" (Rotter, Jurmann).
Tangos—Marcu's Roumanian Orchestra, "Adieu, Venise"; "Do You Still Love Me?"
Orlando and His Argentine Tango Orchestra, "Garufa."
- 10.21 : Vocal—Randolph Sutton, "We're Uncomfortable" (Wallace).
- 10.24 : Foxtrots—The Blue Jays, "By the Bend of the River."
Radio Melody Boys, "A Little Old Cottage."
The Blue Jays, "I'm Following You" (Dreyer, Macdonald).
Harry Hudson's Melody Men, "Handsome Gigolo."
- 10.36 : Waltz—Alfredo and His Band, "Silv'ry Moon" (de Frank, Shepard, Frazzini).
Alfredo and His Band, "Molly" (Goulding, Dougherty).
Tangos—Marcu's Roumanian Orchestra, "Argentina."

Orlando and His Argentine Tango Orchestra, "Gente Bacana."

- 10.48: Vocal—Randolph Sutton, "Back to Gay Paree!" (Stanley, Neville).
 10.51: Foxtrots—Alfredo and His Band, "Oryin' for the Carolines" (Lewis, Young); "The Sunshine of Marseilles" (Gilbert Nichols); "Blondy" (Rubila).
 11.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, DECEMBER 13.

- 3.0 : Chimes. Selected gramophone items.
 4.25: Sporting results.
 5.0 : Chimes. Children's hour, conducted by "Big Brother Bill" and "Uncle Sambo."
 6.0 : Dinner music:
 Edith Lorand's Orchestra, "Johann Strauss" Fantasia (Strauss).
 Piano and orchestra—Raie da Costa and Orchestra, "When Day Is Done" (De Sylva).
 6.12: Tacet.
 6.15: Hawaiian—David Kaili, "Honolulu March."
 Organ—Leslie Harvey, "Where the Shy Little Violets Grow" (Warren).
 Dajos Bela Orchestra, "The Grenadiers" (Waldteufel).
 Saxophone—Arnold Brilhart, "Fascination" (Bernie).
 6.28: Tacet.
 6.30: Dajos Bela Orchestra, "Polish Life" (Nedbal).
 Piano and orchestra, "Raie da Costa and Orchestra, "Sweetheart, I'm Dreaming of You" (Carter).
 Dajos Bela Orchestra, "Dancing Demoiselle" (Fall).
 6.42: Tacet.
 6.45: Edith Lorand's Orchestra, "Dollar Princess" (Fall).
 Dajos Bela Orchestra, "Casino Tanze" (Gungl).
 6.57: Tacet.
 7.0 : News session.
 8.0 : Selection—Regal Cinema Orchestra, "King of Jazz" (Wayne).
 8.9 : Soprano—Miss Ray A. C. Stubbs, (a) "Song of Sunshine" (Thomas), (b) "My Laddie" (Thayer).
 8.15: March and popular melody—Arthur Gordon's Orchestra, (a) "Royal Ambassadors" (Stanton), (b) "A Night of Gladness" (Conrad).
 8.23: Recital—Miss M. Juriss, "The Daffodils" (Wordsworth).
 8.27: Baritone—Mr. N. C. Gamble, "The Linden Tree" (Schubert).
 8.30: Waltz—Arthur Gordon's Orchestra, "Yesterday" (De Lyle).
 8.35: Contralto—Miss Betty Hamilton, (a) "I've Been Roaming" (Horn), (b) "The Wild Rose" (Schubert).
 8.41: Banjo—Mr. H. Stokes, "Rhapsodie Hongroise" (Liszt).
 8.45: Novelty—The Roosters, "Army Reminiscences" (Merriman).
 8.51: Popular melodies—Arthur Gordon's Orchestra, (a) "Cheer Up" (Greer), (b) "Body and Soul" (Green).
 9.0 : Weather report and station notices.
 9.2 : Organ—W. G. Webber, "Organ Fantasia of Old Songs" (arr. Webber).
 9.10: Soprano—Miss Ray A. C. Stubbs, "The Asra" (Rubinstein).
 9.13: Violin—Mr. L. Beath, "Life Let Us Cherish" (Farman).
 9.17: Humorous recital—Miss M. Juriss, "Midnight Encounter with a Rocking Chair" (Anon.).
 9.23: Baritone—Mr. N. C. Gamble, (a) "The Wayside Inn" (Schubert), (b) "The Fishermans" (Schubert).
 9.29: March and popular melody—Arthur Gordon's Orchestra, (a) "The Festival March" (Zamecnik), (b) "Chant of the Jungle" (Brown).
 9.36: Piano—Mrs. C. Drake, "Toccata" (Paradies).
 9.40: Contralto—Miss Betty Hamilton, "Just for To-day" (Seaver).
 9.44: Accordeon—Guido Deiro, "I Pompieri" (Anon.).
 9.47: Waltz—Arthur Gordon's Orchestra, (a) "Dancing with Tears in My Eyes" (Burke).
 Popular hit, (b) "I'm Sailing on a Sunbeam" (Dreyer).
 9.54: Male quartet—National Cavaliers, (a) "Lonesome, That's All" (Roberts), (b) "My Isle of Golden Dreams" (Kahn).
 10.0 : Dance session:
 Foxtrots—Victor Arden, Phil Ohman, and Their Orchestra, "How Am I to Know?" (Parker, King).
 Arcadians Dance Orchestra, "Pepita" (Mascheroni).
 Bernie Cummins and His New Yorker Hotel Orchestra, "Livin' in the Sunlight—Lovin' in the Moonlight."
 The Rhythmic Eight, "Figaro" (Mitchell, Motzan).
 10.12: Waltz—Jean Goldkette and His Orchestra, "Can You Blame Me?"
 Foxtrots—Henry Busse and His Orchestra, "I Came to You."
 Gus Arnheim and His Orchestra, "I'm Feathering a Nest."
 10.21: Vocal—Olga Albani, "It's You I Love" (Davis, Coots, Swanstrom).
 10.24: Foxtrots—New Mayfair Dance Orchestra, "There's Room on My Heart" (Gibbons); "Cuban Nights" (Salvato); "I'll Be Getting Along."
 Waltz—Bob Haring and His Orchestra, "By-and-By, Sweetheart."
 10.36: Foxtrots—Nat Shilkret and His Orchestra, "Congratulations."
 New Mayfair Dance Orchestra, "Cuckoo in the Clock."
 George Olsen and His Music, "The Moon is Low."
 10.45: Vocal—Grace Hayes, "On the Sunny Side of the Street."
 10.48: Foxtrots—The High-Hatters, "You Brought a New Kind of Love to Me"
 Nat Shilkret and His Orchestra, "Into My Heart."
 Herman Klenin and His Orchestra, "I'm Doing What I'm Doing for Love" (Yellen, Ager).
 Nat Shilkret and His Orchestra, "Dark Night."
 11.0 : God save the King.

Sunday, December 14

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, DECEMBER 14.

- 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: Relay of Divine Service from Church of Christ. Preacher: Pastor W. Campbell.
 8.30: (Approx.)—Overture—The Classic Symphony Orchestra, "Raymond."
 Mezzo-contralto—Miss A. E. Hansard, (a) "The Knight of Bethlehem" (Cleghorn Thomson); (b) "Old Sacred Lullaby" (Liddle).
 Instrumental—The Moore Sisters Trio, (a) "Barcarolle" (Fesca); (b) "Petite Bijouterie" (Bohm); cello solo, "Berceuse" (Jarnefeldt); trio, "Negro Spirituelle" (Cameron-White).
 Bass-baritone—Mr. Frank Sutherland, (a) "Can't Remember" (Goatley); (b) "Invocation to the Sun" (Greenhill).
 Violin—Erica Morini, "Russian Folk Songs" (Kreisler).
 Mezzo-contralto—Miss A. E. Hansard, (a) "God Shall Wipe Away All Tears" (Sullivan); (b) "He Shall Feed His Flock" (Handel).
 Instrumental and vocal—The Moore Sisters Trio, "Cradle Song" (Smetana); vocal solo, "Morning" (Speaks); trio, "Moment Musical" (Schubert).
 Bass-baritone—Mr. Frank Sutherland, (a) "For Every Day" (Kennedy Russell); (b) "Sea Fever" (Ireland).
 Selection—The Classic Symphony Orchestra, "Pagliacci."
 9.30: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, DECEMBER 14.

- 3.0 to 4.30: Afternoon session of selected gramophone items.
 6.0 : Children's session, conducted by Uncle George, assisted by the Children's Choir from the Aro Street Methodist Mission.
 6.45: Gramophone recordings.
 7.0 : Relay of Evening Service of Special Christmas Music from the Taranaki Street Methodist Church. Preacher: Rev. T. R. Richards. Organist and choirmaster: Mr. H. Temple White.
 8.20: (Approx.)—Studio concert.
 Overture—Orchestra (Conductor, Signor A. P. Truda), "Poet and Peasant" (Suppe).
 Soprano—Miss Monica Malfroy, (a) "On a Grey Day" (O'Neill); (b) "Dear White Hands" (Haydon).
 Piano—Mr. Ronald Thorby, (a) "Waltz de la Reine" (Coleridge-Taylor); (b) "Legende" (Paderewski).
 Baritone—Mr. Thos. Vaughan, of Masterton, "Shepherd, See Thy Horse's Foaming Mane" (Korhay).
 Selection—Orchestra, "Tales of Hoffman" (Offenbach).
 Tenor—Mr. Chas. Edwards, "Eleanore" (Mallinson).
 Cello—W. H. Squire, "Songs My Mother Taught Me" (Dvorak); "Spinning Wheel" (Dunkler).
 Weather report and station notices.
 Address—Dr. John E. Borland, Examiner for Trinity College of London, and late Educational Advisor to the London County Council Schools, "Music."
 Soprano—Miss Monica Malfroy, (a) "Forest Lullaby" (Baynon); (b) "The Cloths of Heaven" (Dunhill).
 Trio—Fritz and Hugo Kreisler and Michael Rauchs, "Syncopation" (Kreisler); "Marche Miniature Viennois" (Kreisler).
 Baritone—Mr. Thos. Vaughan, (a) "The Vagabond" (Vaughan Williams); (b) "The Pretty Creature" (Lane Wilson).
 Selection—Orchestra, "L'Arlesienne" (Bizet).
 Tenor—Mr. Chas. Edwards, (a) "Could I But Express in Song" (Malashkin); (b) "Never Mind the Rain" (Oliver).
 Valse—Orchestra, "La Militaire" (Waldteufel).
 God save the King.

PLYMOUTH

The Little RADIO with the Big Results.

Employs three Screen-grid Valves, 245 Audio and 280 Rectifier. Has built-in Rola Dynamic Speaker.

Only £22

SHIELDED TRANSFORMERS

3 to 1 and 5 to 1 Ratio, 7/6 each, post paid.

G. G. MACQUARRIE LTD.

120 WILLIS STREET, WELLINGTON.

The Loftin-Four

(Continued from page 17.)

It can fit in the main chain 3500 ohm. position of the main sketch. To find out the resistance divide the voltage given by the current taken by the field multiplied by 1000, and there you are with everything cut and dried.

The Power-Pack.

IN the first series of Loftin-White articles a power-pack with one-inch corded transformer and choke was specified. This power-pack is suitable for a single 245 output valve, or other valve requiring a plate circuit of not more than 32 miles or so. A pair of 245's or a single 250 would require 64 mills in the 7-5 case and 55 in the latter. It would not be advisable to attempt to supply this demand from the power-pack already specified even with increased secondary turns, so the specifications are given for a larger transformer and choke specially suited to supply a single 250 valve, or a pentode.

The transformer and choke both have cores built of 1½ in. stalloy the transformer core built to 1-3-8 thick, and the choke core to 1½ in. in order to increase the inductance as only one choke is used, a centre-tap being provided for connection to a 1 m.f.d. smoothing condenser.

For the 250-valve a half-wave transformer is used, giving 650 volts from the high voltage secondary consisting of 3250 turns of 32 s.w.g. enamelled wire in one continuous winding without centre tap.

To give 450 volts full-wave for a pair of 245's, the secondary winding should consist of two half-width windings side by side of 2200 turns each, or a continuous winding of 4400 turns tapped at 2200, for which 34 wire could be used.

Stalloy sizes for the transformer are 4½ x 1½ and 2½ x 1½, with windows 3½ x 1-8 and spool ends 3½ in. square, clamps drilled 4½ centres for ½-in. bolts.

The primary winding will consist of 1100 turns of 24 s.w.g. enamelled wire to carry 100 watts, as allowing 60 m.a. for the 250 and r.f. valves, and for the filaments of 250, 281, and four 224 valves there is a total demand of 74 watts. without allowing for losses. Filament winding of 18 d.c.c. should be as follows:—

7½ volts (250)	45 turns
2½ volts (224)	15 "
2½ volts (1 227)	15 "
2½ volts (2 227's)	17 "
4 volts (—)	25 "

Voltage is best maintained for heaters by running only one 227 from each winding, but two may be run if the extra two turns are provided to maintain voltage.

The rectifier and screen-grid detector should both be heated from separate windings, and in the case of the rectifier this is imperative. It is permissible to parallel several windings of equal voltage and supply the detector and several r.f. valves from common leads. The windings must be paralleled in correct phase, which is tested by connecting two windings in parallel; if they are correctly connected, a 4 or 6-volt flash-lamp placed across them will light, but if the windings are opposed, the lamp will not light, and one winding must be connected the reverse way. The power valve must have a separate winding. The usual primary fuses and one secondary fuse must be provided.

The Choke.

THE core is of the V pattern, with a piece across the open end, giving two gaps. The clamp at the gap end is 1½ in. wide, overlapping the ends of the V by ½ in. The two gaps must not be less than 1-32 in. each, the space being filled with cardboard. The window is 2½ x 13/16. Four sizes of stalloy are used, 3-5-16 (across end), 3½, 2½ and 2 in. by 1½ in. wide, one heap of each size 1½ in. high. Spool ends are 3-1-8 x 2-15-16 in. Put on 7000 turns of 32 wire, tapping at 3500. More than 7000 may be put on if there is room—up to 500 extra—the fact of the tap not then being exactly in the centre will not matter. Two pounds of

wire will be required, and the inductance with 60 m.a. passing will be 34 henries.

The d.c. resistance of 7000 turns will be 450 ohms., and the voltage drop as follows:—

50 m.a. passing drop	22 volts
60 m.a. passing drop	28 "
70 m.a. passing drop	32 "
80 m.a. passing drop	36 "

If it is desired to use a factory-built choke, the Ferranti B1 is the most suitable, having a d.c. resistance of 500 ohms., and in inductance of 18 henries with 50 m.a. passing, dropping 25 volts. These chokes are not provided with a centre-tap.

Next Week.

WE set out on this article with the best of intentions to give the complete instructions for the construction and operation of the four-valve set, but we find that the number at the top of our manuscript tells us that the allotted space is already nearly exhausted. Space has slipped away in discussing many points that, were they left untreated, would worry constructors, so we have gone to some length to set everyone at rest.

For those who want to purchase their parts we give a list, and they can collect these during the week, for we can assure them there will be no more theoretical considerations.

We have now all the circuits, with the exception of the parallel output, we shall publish for a few weeks, and any new

Radio Telephony Device

To Prevent Eavesdropping

BECAUSE of criticisms concerning the absence of privacy in long-distance radio telephony conversations, an interesting device has been perfected which prevents any intelligible reception of the signals by unauthorised persons.

By the system adopted, the component parts of speech are split up into portions by an electrical device, and transmitted in a mixed arrangement which conveys nothing intelligible until the parts have been rearranged in their correct form at the distant end. This system is now in use on most of the inter-continental radio telephony services of to-day.

ones can be easily made with a few alterations to the existing ones.

Before we conclude this week's instalment it may be worth mentioning that the coils are the same as for the Loftin-Three. Complete kits of these are readily available at all dealers, but there is no great difficulty in making them. About that part of the business we shall have more to say next week.

IT'S ON ITS WAY!!

"Radio's Clearest Voice"

*Incorporating revolutionary new developments
never previously made public*

Completely automatic remote control
A new method of volume control
A new band-pass selector circuit
A new automatic interstage coupling
A new dynamic speaker

A NEW PERFORMANCE

Entirely New ————— Completely Different

THE GREATEST RADIO IN ALL HISTORY

A. J. PARK & SON

Patent Attorneys

Routh's Buildings,

Featherston Street,

WELLINGTON

Short-Wave Topics

Canadian Short Wave Station.

A CANADIAN Station is in the air with the call of VE9GW. The wave-length is 49.22 metres. Reports of reception may be addressed to Route 4, Bourmanville, Ontario, Canada.

New Schedules.

The latest advice from stations W2XAF and W2XAD as received from the General Electric Co., at Schenectady is as follows:—

W2XAF, 31.48 metres. Daily 12 noon to 4 p.m.

W2XAD, 19.56 metres, Mon., Wed., and Fri., 7 a.m. to 1 p.m. Tues., Thurs., and Sat., 11.40 a.m. to 1 p.m. (New Zealand Summer Time.)

These WGY short wave stations are experimental, so this schedule may be changed or discontinued at any time.

Changes at N.R.H.

OWING to code interference, NRH has found it advisable to change his wave-length from 30.8 metres to 30.5 metres. He is now using 75 watts of power in a master-oscillator-power-amplifier circuit. Hours of operation are 10 to 11 a.m. and 2 to 3 p.m. (N.Z. summer time).

Vatican Station.

ACCORDING to reports in various overseas radio papers, this new station should be heard at any time now. Two wave-lengths are to be used: 19.84 and 50.26 metres. Power in aerial, 12 kilowatts.

VK3ME, Melbourne.

THIS station will be on the air next Saturday, December 6, from 10 p.m. till 11.30 p.m. our time. Wave-length, 31.55 metres.

Log for Week Ending November 29

CONDITIONS are still bad for short wave reception, most stations being weak during the early morning and more than a fair share of static later in the day.

RV15, Siberia, 70 metres, is still at maximum strength each evening. A Chinese session is sometimes heard from this station.

A Christmas Gift

IRRESPECTIVE OF ITS COST, ... has a greater value when, by the pleasure and joy it gives over a long period, it constantly brings to mind the generosity and thoughtfulness of the donor.

MACK'S FAMOUS SHORT-WAVE ADDAPHONE.

has these essentials, and, unlike the "here to-day and gone to-morrow" variety of gift, the pleasure of it continues for years.

THESE FAMOUS SETS ARE BUILT IN NEW ZEALAND.

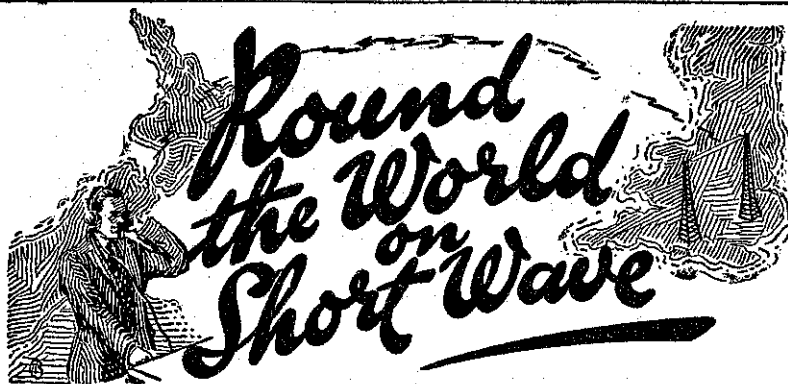
Let your gift this year be an

Addaphone

Which will bring joy and happiness to the family circle.

MACK'S RADIO SERVICE,

76-77 Kent Terrace, Wellington.
Phone 23-448.



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.

ZL2XX, Wellington, 62.8 metres.—On Monday evening a test was well received.

W9XF, Chicago, 49.33 metres: Not as good now as a few weeks ago, but up to R8 and R9 till 7 p.m.

W3XAL, New Jersey, 49.18 metres: The best American station now. R9 till 6 p.m.

Radio Saigon, Indo-China, 49 metres: Monday, Tuesday and Friday, after 10 p.m., volume and modulation very good, but static very bad.

3ZC, Christchurch, 46.4 metres (about): Friday evening, R8, with severe fading. Too close to the eighth harmonic of 2YA (46.3 metres) for clear reception here.

46.8 metres (about): German talk at 6.20 a.m. on Tuesday and Wednesday morning. R5, with lots of static.

45.4 metres (about): This stranger is still to be heard each morning, but not nearly so strong as when first reported. On Tuesday from about 6 a.m. short talks were heard, each followed by a few bars of orchestral music, similar to what has been heard from the Russian RV15. Perhaps this is Moscow, reported by a correspondent last week in these notes.

VK3ME, Melbourne, 31.55 metres, broadcast a test programme on Saturday night till 11.30 p.m. Volume R9, with one audio. Reports from overseas listeners asked for. Address, 167 Queen Street, Melbourne.

W2XAF, Schenectady, 31.48 metres: Sunday and Saturday afternoons till 4 p.m. R4-5 at best, which was when signing off.

Zeesen, Germany, 31.38 metres: Audible each morning, too weak.

WIXAZ, Springfield, Mass, 31.3 metres: Sunday and Saturday. Signs off before reaching good readable volume.

PCJ, Eindhoven, Holland, 31.28 metres: Friday and Saturday mornings, very poor. No sign of PCJ on Saturday afternoon.

HS2PJ, Bangkok, 29.5 metres: Wednesday, 6.30 a.m., calling "Hullo, Bangkok here." R8-9.

LS8 Buenos Aires, 29 metres.—Sunday and Saturday volume increases to about R8 at 3 p.m. when they close down. Not nearly so good as they were a few weeks ago.

G5SW, Chelmsford, 25.53 metres.—Still too much rapid fade to be readable from 7 a.m.

WSXK, Pittsburgh, 25.25 metres.—Monday R6 at 6.30 a.m. Other mornings very weak, but audible.

FTN, France, 24.46 metres.—Good volume on duplex nearly every evening after 10 p.m.

KIXR, Manila, 24.4 metres (about).—Comes in at good volume on this wavelength from 10 p.m.

W2XAD, Schenectady, 19.56 metres.—This station is to be heard now during the early hours. The best reception was on Monday when they were R4 at 7.30 a.m. with a cathedral choir, increasing to R8 by 7.45 a.m.

PLF, Java, 16.8 metres.—Wednesday, 10.30 p.m., musical items R8-9, very gushy, and again on Friday at 8.30 p.m., when they were excellent at R9, later talking to Holland.

PCK, Holland, 16.3 metres.—Duplex with Java on Friday evening. Excellent at R9.

Shortwave Notes

BELOW are given extracts from letters received by Mr. A. D. Rogers (Wellington) from WIXAZ and Radio Saigon. "Many listeners in Australia and New Zealand have had the same trouble that you have—mistaking the last letter of our call signal, most of them getting it as 'IXAV.' Our transmitter operates on 9570 k.c. (31.35 metres approx.) at a maximum power of 10 k.w. However, at the time you report it we were using a power of 500 watts in the antenna. The calls of the other stations which you heard along with the s.w. station were WBZ and WBZA. The programme which you heard is our opening programme at 7.30 a.m., our time, or 10.30 p.m. your time.—Yours, etc., Philip F. Robinson, Plant Manager, WBZ-WBZA."

"The aerial power of Radio Saigon is 12 k.w., and it operates on 49 metres. Call signal, F3-ICD. Call: 'Hello! Hello! Here is 'Radio Saigon.' Transmitting hours: Every day excepting Wednesdays and Sundays, 7-10.45 p.m.; Wednesdays, 6.30-10.30 p.m.; Sundays, 7-10.30 p.m. Local time is seven hours ahead of G.M.T." The following is an extract from "Radio Saigon," a radio journal published in the station's interests. Apparently tests were conducted during the week from September 30 to October 7, to determine if transmission on a different frequency would be advantageous. "The conclusions arrived at following these are that 75 metres has been much less successful than 49, owing to weak signal strength, bad fading and numerous in-

terference. We are therefore returning to our old wavelength of 49 metres, as we feel sure that the majority of listeners would prefer to receive the programmes from Radio Saigon under good conditions. And now that our trials on 75 metres are ended, our readers would perhaps allow us to quote in its entirety a letter from one of our listeners at Tongking, China, who has been getting bad reception. 'It is quite understood that you transmit only for the amateur wireless enthusiasts of Tongking, but you have been guying them lately. From being sweetly satisfied with your transmissions, they have become rapidly discouraged. For myself, I dismantled my receiver this morning, and will not erect it until Shanghai have commenced to broadcast. Now your transmission on Monday evening, September 29, was perfect. Why have you copied those idiots at Manila? On 75 metres reception is feeble and completely overwhelmed with interference. Kindly accept, sirs, my sincere greetings.'

"Our pleasant and humorous correspondent is now assured that after Monday he will hear us afresh."

[V.W. (Auckland) also forwarded us particulars of Radio-Saigon, taken from recently received verification literature.]

FOR SALE OR EXCHANGE

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

COMBINATION Gramophone and Local Station Radio Receiver in beautiful cabinet—Brand new. Price, £30. Further particulars "Combination," P.O. Box 1032, Wellington.

LOFTIN-WHITE Amplifier, new, with Valves, Ferranti Output Transformer, genuine Eiectrad Resistors. Demonstration given. Bargain at £9. Dent, Box 893, Auckland.

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

WEIGHT noticeably reduced and you feel much better by taking Youth-O-Form Capsules. 6/6 posted. A. C. Timms, Chemist, Pahiatua.

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

BATHING Beauties! Don't envy them. Take Youth-O-Form Capsules and reduce 20lb. in six weeks. 6/6 posted. A. C. Timms, Chemist, Pahiatua.

PORTABLE Electric Sewing Machines, with Westinghouse Motors. Usual price £14/10/-. Few sample machines at £12. Write Brown & Co., Thames.

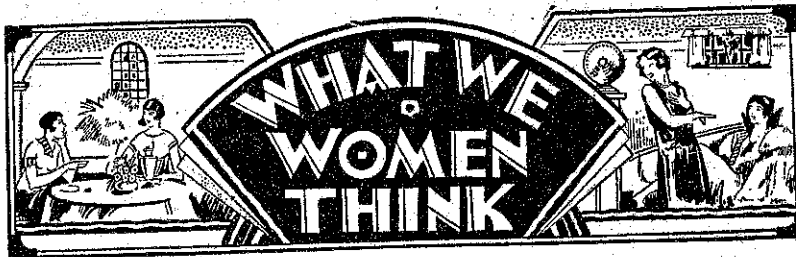
£30 up rich-toned Metrodyne "Sterling" Screen-Grid 8, 10in. Dynamic—Distance and volume second only to "Commander." R. H. Co., Christchurch.

GIRLISH Slenderness, grace and charm yours by taking Youth-O-Form Capsules. Absolutely harmless. 6/6 posted. A. C. Timms, Chemist, Pahiatua.

A SNIP! American G.E. Gramo Motor 230 A.C., guaranteed: very little used. £5/5/-. "Gramo," Box 1032, Wellington.

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

CHARADES are an old-time entertainment, and are now coming back into some of the best homes. Somehow the balls and dances of this year are tame affairs, entirely without originality. You know exactly what is the procedure. Literally, you roll up a carpet and put on a record, and, perhaps, if it is a lucky night, you can dance to radio. However, there are none of the old-time thrills about them. Dinner and bridge parties, which call for no stage arranging, seem to be the height of entertaining that the community is capable of at present—very little of the happy surprise parties of yesterday.



THIS is an age of slogans, and we might well add yet another to the ever-growing list: "Drink more milk." Milk is an extremely valuable food, not only for infants and invalids, but for those of more mature years. It contains the three staple constituents, protein, carbo-hydrate, and fat, includes vitamins A and B, and has also a high calcium content. It will thus be understood that it is of paramount importance in the diet of growing children. A pint of milk a day is not too much between the ages of 5 and 14, and working girls would find their health much improved by drinking milk at their midday meal.

WE made the linoleum at our seaside bath look like new last week-end by mixing turpentine with warm milk, and washing this over the covering.

EVEN the best cooks are apt to have difficulty with poached eggs sticking to the bottom of the saucepan. To prevent this, try greasing the saucepan well beforehand.

HOWEVER careful you are boiling eggs it often happens that the white oozes out. In order to avoid this, try wrapping the egg up in tissue paper, and you will find that as soon as the paper gets wet it seals the crack.

A GOOD carriage is as essential to the beauty of a woman as her ankles. Therefore at all times we should form the habit of sitting straight, standing straight and particularly of walking with head well thrown back. Clothes, however expensive, look "ordinary" if the carriage of the wearer is unimpressive.

THE boy who "crept like a snail unwillingly" to school is an anachronism nowadays. A new school has been opened in Surrey which is advertised as being "run on modern lines," and which has a landing-place in the grounds for the aeroplanes of its older pupils. One boy of 17 actually flies from Croydon each day in his Moth machine.

AN experiment which may prove a boon to the cotton industry is being tried in Burnley, Lancashire. Several streets are being re-surfaced and on certain portions of them Burnley-made cotton cloth is being used, to test its efficacy for road work. It is claimed that this will materially assist in making the surface waterproof, and the innovation is being watched with great interest by road engineers and the cotton industry.

GREASE stains on carpets can be removed by scrubbing them with hot water with a tablespoonful of ammonia per pint and then rubbing dry with a cloth. Spread a paste of Fuller's earth mixed with cold water over the stains, leave until dry, and then brush off. Stains of long standing may require two or three applications of Fuller's earth.

OUR New Zealand writers are beginning to make themselves felt in London. Just recently Mr. Charles Quentin Pope has compiled and edited for Messrs. Dent 200 poems written since the War by 60 representative New Zealanders. This anthology is called "Kowhai Gold," and I understand from the local booksellers it is selling remarkably quickly. Last year Messrs. Dent also published a volume of New Zealand short stories which had an appeal all of their own for overseas readers.

THE French do not appear to know much about about dairy or sheep farming. A correspondent writing to the "Daily Sketch" says that the great disadvantage of living in France is the difficulty of getting good butcher's meat. Even New Zealand frozen meat is unobtainable, though there would be an immense demand for it, he said, if the New Zealanders sent it to France. And why not? But there are doubtless many and varied answers to that question.

TO cool, without ice, drinks such as lemonade, soda water, and milk, do as they do in the East. Wrap the bottle or jug in a piece of wet flannel, place in a draught by an open window, leaving the door open as well. Or hang the bottle, similarly treated, from a branch of a tree. The draught and warmth of the air will

Thought for the Week

The life of every man is a diary in which he means to write one story, and writes another; and his humblest hour is when he compares the volume as it is with what he vowed to make it.

—J. M. BARRIE,
in "The Little Minister"

evaporate the moisture in the flannel, and in doing so will cool the contents of jug or bottle by several degrees, in even half an hour.

EVERYWHERE women are discussing the impracticability of trails and frills which, when they are not scooping up the dust are gathering mud. Moreover, young girls are beginning to realise that there is a great saving of money and a minimum of discomfort in the shorter skirt. The sudden transition to gowns requiring from seven to eight yards' more material than those of the previous season, with a consequent rise in prices of from 25 to 40 per cent., is causing many to reflect seriously that long dresses do not march with short purses.

FOR workers in domestic service there are more openings than candidates (says a writer in "The Queen"). A pamphlet issued recently by the Association of Head Mistresses of Public Secondary Schools and the Minister of Labour states that posts available for educated women in England range from plain cookery work to administrative positions. It is always possible for a girl well trained in domestic subjects to obtain employment immediately on completing her studies. Many of the training centres guarantee posts at the outset.

FAT splashes made when frying are quickly absorbed if the top of the stove is strewn with coarse salt. The salt absorbs all the grease and much of the smell, and is easily brushed off when the frying is finished.

IN order to freshen up velvet it is a good plan to hang up your frock or wrap up in the bathroom, close both door and window and turn on the boiling-water tap. Leave the garments in this Turkish bath atmosphere for an hour, and they will be quite restored to perfect condition again.

GARDENERS cannot know of too many ways of making their hands soft and clean after a long day's weeding in the garden. A most effective way is to use cold boiled potatoes, the same way as one does soap, and rub it well in when washing.

EVERYONE uses pyrex ware for cooking nowadays, but there is one little point which it is necessary to remember when using casserole dishes of this substance. Do not have your heat too great at first, for if you do it will make the upper portion of the dish very hot, and the lower portion, containing the slower-heating gravy, will remain comparatively cool. This often causes the casserole to crack right round in a straight line.

AN English dress-designer who has just returned from Paris says that jewel-coloured evening dresses of turquoise, jade, jethyst and ruby will be the rage this season. The only patterned material that will be permissible is chiffon lume. These jewel colours are magnificent in soft chiffon velvets, and are kind to most complexions. So we may expect next winter to see our cabarets and ballrooms glowing with the colours of the jewel-casket.

WHEN putting hats away in their box, do not place them to allow their weight to rest on the brims. Pad out the crown with tissue paper, and then place the hat wrong side up. Then shoes need careful attention. Never put them away dirty. If they become soiled remove any marks as soon as possible with a slightly moistened soft rag with a little soap on it. Finish off by polishing with a perfectly clean pad or duster, and they will look as fresh as new.

NOW that the salad season is here, a recipe for mayonnaise without eggs should prove useful to housewives.

Ingredients: One gill of milk, a teaspoonful of salt, 1½ teaspoonfuls of sugar, a dash of cayenne, 2 tablespoonfuls of salad oil, two small teaspoonfuls of mixed mustard, one tablespoonful of lemon juice, 3 tablespoonfuls of vinegar.

Method: Mix well the salt, pepper, sugar and mustard, add the oil, stirring rapidly all the time. Beat in the milk, and lastly the lemon juice and vinegar. Keep in an air-tight bottle and shake well before using.

MICROPHONE actors, vocalists, and speakers little dream what a responsibility they have on their shoulders not to damage this sensitive unit. A heroine in a radio play, according to her part, had to shriek at the end of her speech. She yelled—and the result? Well, it cost the broadcasting company £40 to repair the damage. For this noise pierced violently through the primary and secondary coils, leaped desperately, but noiselessly across the condensers, and rushed into a transmitting valve, which spluttered and gave up the ghost. (With apologies to "Retired Volt.")

"The man who never made a mistake never made anything."

IT is strange that otherwise upright and honest people think it is not wrong to defraud the Customs officers, and do their best to conceal anything on which there is duty to pay. Is it a surviving trait of the old smuggling days? There is a story of an enterprising woman who succeeded in a clever ruse. Unclaimed goods were auctioned, and among those "put up" was a crate of gloves. They were found to be all for the right hand, so they were "knocked down" very cheaply. Customs officers talking one day discussed this curious crate, when a Bristol official overhearing told them they had had a similar crate for left-hand gloves, which was sold for a mere song! "Would this pass the Customs, I wonder, if we had gloves sent out one at a time, and never in pairs?"

IF your face is thin (says a writer in the "Home") it demands a soft style of hairdressing. Let the hair



Cook's opinion of a broadcaster!

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

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

For Free Folder of Tested Recipes, write NOW to "Anchor," Box 844, Auckland.

be full at the sides, but do not draw it forward too much on to the cheeks, for this will only tend to accentuate their thinness. If your forehead is low and your face oval, part your hair in the middle. It should suit you. If your neck is not long, do not dress your hair very low at the back. Instead, arrange your coil, swathe, or curls high in the nape of your neck. If your ears are a pretty shape, curls nestling loosely in the neck and at the sides behind the ears look charming. If your face is narrow, your parting should be rather low at the side, as this gives breadth. For a broad face it should be nearer the centre.

IT is not long ago since I was telling you about the new Cambridge Theatre in London, replete with every modern convenience for the comfort of its patrons. Now there is another addition to London's new playhouses, the Whitehall, which is said to be the perfect theatre. To begin with, the proscenium arch has been projected forward to include front rows of the stalls, thus imparting a delightful air of intimacy to the building. When the cloakroom accommodation is a special feature, including, as it does, a room set aside for business women who come direct to the theatre and wish to change into evening dress. Even the men are to be kept in good humour, and lest their womenfolk should keep them waiting, the mirrors are specially tinted so that a glance satisfies her ladyship that her complexion is perfect. Can an obliging management do more?

"GENIUS analytically," says Edison "is 1 per-cent. inspiration and 99 per-cent. perspiration." Edison was never afraid of work, and determination to succeed, coupled with the fact that no idea of failure ever entered his mind, has resulted in the tremendous success as an inventor. He worked on his first machine to produce speech in 1876. One night after long research he entered his laboratory, locked the door, and put the key in his pocket. He then pointed to the phonograph and said to his assistants, "We none of us leave the room until this thing speaks." And eventually it did!

MR. CYRIL SCOTT, the British composer, had some very definite views about the value of wireless when speaking recently at the Radio Exhibition at Olympia. "The dissemination of wireless," he said, "may be instrumental in changing the whole temperament of the race in the course of time. It may ginger-up their minds, tickle-up their brains, and make them think a bit quicker. Their slow-moving legs will feel more like dancing, and so on. Before the introduction of radio we had no musical gloom-dispeller handy. So if we couldn't play the piano or did not possess a gramophone we had to put up with gloominess or get rid of it as best we could."

—ALISON.

Lady Smokers, Read This!

Your happiness and success depend upon your physical fitness. The Tobacco Habit is holding you back and robbing you of your health, ability, power and money. We can help you quit this habit. Home Welfare Pty., A.M.P. Buildings, 36R Hunter St., Wellington.

Light Shades for Decoration

Endless Variety Possible

THE use of shaded electric lights for decorative purposes is coming into more general practice and those who have tried this method of brightening up a room have found that highly effective results can be achieved.

The keynote of success is to have several lighting points in a room. The old style of hanging a single lamp in the centre of each room is woefully out of date, though still very common. Take a living room, for instance. Certainly a central light is essential for general purposes, but in addition, at the back of a favourite reading chair, above a writing table, piano, lounge or sofa, a light should be placed.

These need to be shaded and ingenious housewives realise that it is not necessary always to obtain expensive shades. A more satisfactory practice is to use coloured paper shades and to change them when they begin to show signs of wear or when the colour used begins to tire the eyes.

A room can be freshened up wonderfully by a change in the colour of the electric lamp shades, and the use of coloured lamps is also to be recommended. This method of decoration can even be used as an alternative to the purchase of expensive furniture. It all depends, however, on the provision of an ample number of lighting points which are the greatest comfort-providers in a home. It is worth while when building a home to remember the value of ample lighting points because the initial expense is slight and the more points there are the less electric current is consumed.

Church Run by Women

TWO young women graduates of Manchester University have started a joint pastorate as Ministers of a Leeds Congregational Church. The church is situated in a crowded industrial area, and though the district bristles with difficulties and problems, the youthful ministers are in no way daunted. Their ideas include making a garden out of the chapel yard, the church to be open all day and every day; a children's corner in the church with books and pictures, and a bowl of water and soap for grubby hands. Outside they will build a "public-house" of a new type, with rest rooms for men and women, and playrooms for children.

The church, which is very old, was formerly patronised by a wealthy and fashionable congregation, and rows of carriages stood outside during the services. Now, however, there will be rows of prams instead, "and that," said one of the young pastors, "will be much better."

INDIGESTION
Heartburn, Acidity & all Stomach disorders.
SPEEDILY RELIEVED BY
PEPTOS
"THE GREAT PAW-PAW REMEDY"
SOLD AT ALL CHEMISTS.

A Rare Sight Beauties of Local Garden

THE people of Wellington do not fully realise the beauties that are so close at hand. They pick up "English Homes and Gardens," and are envious when they see the wonderful gardens, but at Waikanae some enterprising and artistic people have planted out at least half an acre of imported irises.

This week the sight was a glory to behold, and an artist would be at a loss to do justice to the picture. There were one hundred and eighty varieties, and as one walked among them each seem to surpass the last in beauty. One handsome bloom, by name "Iris King," in colour crimson-maroon, margined with gold, brought forth exclamations of admiration.

"Bruno" was marvellous. It was bronze-coloured, tinted with lavender shading to a yellow at the base. Then came "Asia," a dignified bloom of unusual colouring—pale silvery lavender, with falls of light violet purple colouring. The beauty of colour was indescribable. "Earth hath not anything to show more fair; dull would he be of soul who could pass by a sight so touching in its majesty."

"Roning the Boast"

APROPOS of Dr. Spooner, said to be responsible for so many so-called "Spoonerisms," I think the most amusing I have heard was when he threatened to write to the father of one of his pupils, telling him he had "deliberately tasted two worms" (wasted two terms). I amused my family one Sunday morning by asking my husband if he would "roast the bone" for me. He said, "Certainly, but what bone do you want roasted?" "Oh, I mean to say, 'ron the boast,'" I answered, then, seeing by their faces that I was still wrong, I managed to ask him to "bone the roast." "BECKY."

**Sold direct
at £5/5/-
Saving**

No retail
profits or
salesmen's
commissions.



£10/10/- Complete
with 7 clip-on parts.
Post Free

Buy this full-sized, efficient, fully-guaranteed Vacuum Cleaner direct from the sole importers. The heart of a cleaner is the motor. The SUNSHINE has the world-famous Westinghouse Motor, and 16 other distinct superiorities. Write for illustrated folder.—Sole N.Z. Distributors: **HAROLD LIGHTBAND, LTD.**, 70a Lichfield Street, Christchurch. Or 386 Queen Street, Auckland.

Original Recipes

By

Frank Hilton

As broadcast from
2YA, Wellington

Short Pastry.

THIS is very simple and very nice.

Ingredients: 1lb. of flour, $\frac{1}{2}$ lb. butter, and if for sweet pies, etc., 4ozs. sugar and as much baking powder as covers a shilling.

Method: Rub in the butter and mix with cold water into a nice firm dough; let it stand half an hour, then roll out into whatever is required. If for savories, meat pies, etc., leave out the sugar and add salt to taste.

The next recipe is for meat pies, etc., a very cheap and nice hot water paste.

Ingredients: 1lb. of flour, 4ozs. beef dripping, $\frac{1}{2}$ oz. salt.

Method: Make a bay in the centre of the flour, put in the beef dripping and salt; pour on the dripping some boiling water, and, after the dripping is dissolved, draw in with a fork the flour and make into a nice firm dough; do not knead it, and, while warm use for pie coverings, etc., but you can bake it at any time.

My next pastry is German dough, or German biscuits. In fact, any kind of article that requires a rich, sweet pastry.

Ingredients: 1lb. 2ozs. flour, $\frac{1}{2}$ lb. butter, 6ozs. icing-sugar, 1 egg.

Method: Take the butter, sugar and egg; knead them all together. When all are incorporated knead in the flour. This pastry can be used any time and takes no harm by standing a few days. Just mix a lump and use it as you desire.

Puff Pastry.

MANY desire to make really good flaky puff pastry, and how many think it is too difficult! As a matter of fact the making of puff pastry is really quite easy. All you have to do is to mix correctly and roll correctly, and use plenty of butter. The recipe for puff pastry is quite simple; the same weight of butter as flour; that is, one pound of flour to one pound of butter. I can hear many saying to themselves: "How expensive!" But it is not expensive when you take into consideration how many pieces you can cut this amount into when properly made. The cost of the pastry would be about $\frac{1}{6}$; this should cut into 36 pieces of pastry of commercial size, and you have the advantage of your goods being made of pure butter—absolutely home-made.

Puff paste recipe: One pound of butter and one pound of flour. Weigh both these on to a table or board. The butter should be firm, tough and dry. You all know what I mean by firm. Toughness means that the butter will not break apart when squeezed in the hand nor crumble. A good brand of table butter makes good pastry, but never use whey butter for pastry, it does not flake very well. Now, what do I mean by dry butter? I mean that it must not contain any surplus milk or water and not too much salt. Should your butter contain too much moisture, crush it out on the table with your hands and let it stand over night to firm up again. Well, so much for the ingredients, now we come to the mixing.

Weigh butter and flour on to the table or a board. Now chop the butter into the flour in pieces about the size of, say, a whole almond nut not shelled, no smaller, stirring it into the flour all the time. When all the butter is chopped up add to the flour and butter as much cream of tartar as covers a shilling; no other powder must be used, just pure cream of tartar. No sodas may be used and no baking powders, as soda will surely kill your pastry.

Now with some cold water—as cold as possible—make into a firm dough. Here is another little hint for readers: in making perfect pastry your dough should be the same stiffness as your butter was before you started; that is, a firm hard butter, a firm hard dough; a soft pliable butter, a soft pliable dough. You will find it requires very little water, and you must kind of shake the water in using the hands to mix with, and there must be no wet patches—a nice, firm, dry dough. You must not knead it, just clean your hands with dry flour and lift the mixed dough on to a nicely-floured table or board.

Now comes the business of rolling out; our dough is now a mass of paste and huge lumps. Take the rolling-pin and roll as gently as possible;

do not crush it out. It must be rolled, say, to about $\frac{1}{4}$ -inch thick. Do not use any more flour than you can possibly help in the rolling process. Now take a fold; that is, lift the right hand side of the paste to the centre and then the left hand side of the paste to the centre; brush off all surplus flour. Now take the top edge of the pastry facing you and roll it gently to the bottom, like a sponge roll. This is called the first turn. Now let it stand a few minutes; then roll it out again and do the same thing again. This is called the second turn. Now let it stand about half an hour and repeat the treatment again and your pastry should be about right; that is, if you cannot see any patches of butter. Let it stand a little before finally putting it into tarts, or whatever you may wish.

Another hint: many cooks make the mistake of over-rolling their pastry. When you are cutting out your pastry try and have as little trimming as possible, and use your trimmings for the lining of custards, etc., or anything where puffiness is not desired. Now all these directions, etc., summarised mean: choose materials right; mix right; and roll right, and you have perfect pastry.

Pastry needs a good hot oven, about 300 degrees Fahrenheit.

There are two methods of glossing or glazing pastry: one is, brush over with egg; the other is, and the finest glaze of the lot, is to sieve over a fine layer of icing-sugar before baking; but all flour must be brushed off the finished article before the sugar is dusted over. If the sugar comes in contact with any flour it will not gloss.

Christmas Pudding.

LISTENERS are advised to make these as soon as possible, for the longer they are made the better will be the flavour. The recipe is:—

$\frac{1}{2}$ lb. beef suet.	4oz. chopped almonds.
$\frac{2}{3}$ lb. currants.	$\frac{1}{2}$ lb. sugar.
$\frac{1}{2}$ lb. sultanas.	6 eggs.
$\frac{1}{2}$ lb. lemon peel.	$\frac{1}{2}$ lb. brown breadcrumbs.
$\frac{1}{2}$ small pkt. mixed spice, and milk.	$\frac{1}{2}$ lb. flour.

Method: All the fruit must be weighed and dried into mixing bowl. Next we will need—and must have—a mincing machine. Slightly soak the brown bread in a little milk, don't make it too wet or it won't pass through the mincer. Now pass the bread, suet and peel through the mincer; the best way is: A bit of bread, then a bit of peel, then a bit of suet, and so on until all is through. If you care to substitute large raisins for the sultanas, pass them through the mincer also. After everything is through, add these minced ingredients to the fruit already in the mixing bowl. Now crack and beat up the eggs, put them in, and the sugar and the rest of the ingredients, and mix all up with fresh milk, stirring in the spice last.

Do not make them too stiff or too sloppy, but mix them up well. Use your right hand and don't be afraid to stir. Do not make the mixture soft enough to run level in the basins; it should be slightly pressed into shape. The size of the basins can be left to your own discretion. A pound-and-a-half pudding is generally enough for six persons. Grease the basins well with butter, then fill to the top, cover over with a piece of parchment paper and then tie a cloth over the top of basin. The puddings should be boiled six hours, just kept simmering all the time, not boiled fast. They should then be taken from the boiling water, turned upside down to drain and dry, then stored away in a cool, dry place. When they are going to be used they need to be steamed again for one hour.

FAMA For Bathrooms, Lavatories,
Sink-tops, etc.
FAMA STONEWOOD FLOORING CO., Wellington.

THE editor of the "Times," Berlin, has received a visit from a young German who displayed a miniature wireless receiver constructed from material smuggled to him while serving a term of several months' imprisonment. The receiver could be held completely in the hollow of his hand and, in spite of the warders' vigilance, he heard concerts, reports of meetings, and theatrical items in his cell each evening. During the day the ingenious wireless enthusiast easily concealed the whole of his apparatus in the breast

of his tunic. His secret was never discovered.

THE Germans have evolved an idea to prevent broadcast artists introducing distortion through being the wrong distance from the microphone. The carpet is of a draughtboard pattern

and most of the squares bear numbers. When rehearsing the artists are allotted numbers and must keep to these during the actual performance.

THE Italian Government, to encourage home production of radio receivers, is instituting an annual competition among manufacturers. The firm which produces the most suitable set for public use, will be granted a one-year contract for a supply of sets and instruments. These are to be made available to the public on the instalment plan.

TO commemorate the tenth anniversary of the invasion of Poland by the Bolshevik army, a representation of the battle was recently staged ten miles from Warsaw. Microphones were taken to the battle-ground, and with the aid of artillery, rifles, and bombs lent by the military authorities, listeners were entertained with all the thrills of the engagement.

THE successful introduction of broadcast receivers on German and French trains has attracted the attention of Italian railway officials, and experiments are shortly to be conducted on the Milan-Turin route. The receiver will be in the care of the guard, who will issue headphones to passengers on payment of a small fee.

A LEADING London daily publishes an interesting statement made by Marconi in reply to the question, "What do you want most out of life?" in which the following passage occurs:—"I do not demand wireless communication with Mars, wireless-controlled machinery, or even television. These things will not successfully operate in a perfect manner for many years to come. But I do think that I have time and the knowledge for making wireless transmission better than it is."

A NEW type of accumulator is on the point of completion by an Irishman, Dr. Drumm. It is an alkaline battery, having a voltage of less than half that of an ordinary accumulator. It is very light and charges up at eight-minute intervals instead of 8 to 10 hours, as is the case with the lead and Edison types. The installation of this accumulator in a 65-ton electric train was contemplated, but, one of the electrodes being made of silver, the equipment of one engine would have cost over two millions.

WIRELESS is becoming increasingly popular among the native population of North America, owing, in great measure, to the excellent propaganda work which has been accomplished by "The Giant's Voice," a travelling wireless installation and loudspeaker. The

wireless installation consists of two motor-vehicles, one for the actual broadcasting and the other containing the power unit. The plant has a modulated output of more than 600 watts, derived from an overall input of 2 kilowatts. The large valves are specially mounted to avoid vibration. There is a studio with two microphones, one for announcements and lectures, the other for items of music. Items are also relayed from other stations. The huge multi-cone loudspeakers have a wide range—in certain circumstances, up to six miles.

A NEW use for wireless telephony has been discovered by the Canadian National Railways. The train ferries operating between the mainland at Tormentine, New Brunswick, and Borden, Prince Edward Island, convey passenger coaches and freight cars. Although the distance covered is not great, weather conditions frequently lengthen the time required for the passage. To maintain communication with the ferries at all times, the company has installed two small 100-watt wireless telephone transmitters and associated receivers. The ship sets are operated by remote control from the captain's cabin.

YOU are at this moment in the central cage of the Pezon Menagerie? was the announcement which recently thrilled listeners to the broadcasting station at Lille, France. For three-quarters of an hour the programme consisted of the snarls, grunts, and other vocal efforts of a company of lions, tigers, leopards, wolves, hyenas and bears.

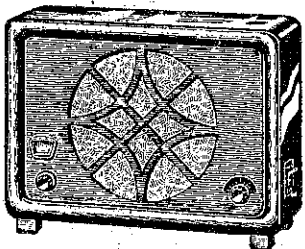
THE most powerful broadcasting installation in Europe recently underwent its final trials at the Marconi works at Chelmsford. This is a long wave 158 k.w. transmitter which is shortly to be erected near Warsaw for the Polish Broadcasting Company. The two aerial masts, 600 feet high and 750 feet apart, will be the highest in use at any European broadcasting station. It will be interesting to see if any of New Zealand's d.x. enthusiasts succeed in logging this giant.

ALL attendance records for previous wireless exhibitions have been smashed this year at Olympia. In the first six days more than 170,000 visitors passed through the turnstiles. The daily average exceeded that of 1929 by nearly 6,000. This year's Show has conclusively proved that the radio industry is one of the most prosperous in England at the present time (states a contemporary). Orders were taken which will keep quite a number of firms busy for four or five months.

THE opening of the first course in broadcast salesmanship is announced by the College of the City of New York. The instructor, it is stated, has travelled 10,000 miles studying "listener reaction" and is an expert in making the programme suit the product.

Club Story of an Explorer made wild

Pensive looking! Yes, Bill, and all through buying a Blue Spot Radio Set . . . Tuned in last night to a voice speaking on *Lost in the Bush* . . . good voice, too . . . might have come from the local station or, mayhap, further away. Started me musing of the trip to the interior of Borneo. It failed . . . the dangers . . . the heat . . . tame, beautiful birds, strangers to man . . . must go back to Borneo again. Switched off to stroll and think. Yes, I'll be off in a week. No. Won't sell the set. I like it. If you want to listen in, too, you can easily buy a new Blue Spot Radio.



SOLD BY LICENSED
RADIO AGENTS.

The Blue Spot is a district receiver to switch on and play costing £17/10/-

Special Terminals enable you to attach an Electric Pick-Up to Electrically Play Gramophone Records.

Factory Representatives:

SCOTT & HOLLADAY Ltd.

CIVIC CHAMBERS, WELLINGTON.

P.S.—The Price of the Blue Spot Electric Pick-up will be Eighty Shillings.

Wellington Distributors:

ELECTRIC LAMP HOUSE LTD.

MANNERS ST., WELLINGTON.