

THE RADIO RECORD

Published Weekly
REGISTERED G.P.O., WELLINGTON, N.Z., AS A NEWSPAPER.

Vol. III., No. 23.

WELLINGTON, FRIDAY, DECEMBER 20, 1929.

(Price, 3d.)

Radio Progress During the Current Year



WITH the development of broadcasting the whole subject of radio has been made a fascinating one for millions of people throughout the world. Experts are constantly experimenting and discovering how to apply new ideas to construction methods and equipment. Incidentally they have almost invented a new technical language, familiarising strange words—and deeds—to people who, not so long ago, knew only this of

electricity—that it “ran along wires.”

Perhaps the principal achievement of research workers in radio is, however, that they have put into the hands of non-technical people complicated and wonderful sets that are easy to control. The Radio Exhibition at Olympia was a witness to that achievement, and the recent Radio Show held in Manchester gave further proof of it.

Helped by the latest gadgets the listener can, without trouble or mistake, tune in to the station whose programme he has promised to produce. The trend is toward one-knob control. Some of the powerful sets, having ranges equal to the old type of five and six valve sets of eighteen or twelve months ago, are so simple that it is not straining the truth to say that a child can tune in to a number of stations.

Another feature of modern wireless is the increased use of electricity mains as a source of power for receiving sets. A year ago development in this direction was forecast, and now attachments can safely be made to the ordinary wall plug or electric light socket. It will often be noted that the eliminator is built into the set, providing a compact unit in all, with only three outside wires, the aerial, earth, and the connection to the mains—a contrast to the tangle of wires in old-time sets. The all-electrical wireless set takes its place with other domestic electrical apparatus.

It is not every house, however, that has electricity, and the needs of the multitudes of battery users have not been ignored. Many of the manufacturers have alternative models for mains and battery operation. Conversion may be achieved by taking out the batteries and using an eliminator. Receivers that are not quite up to date are enabled to work from the mains by means of eliminators.

Since the invention of radio, development in all branches of this science has proceeded steadily, and, in latter years, with increasing speed. Perhaps the most outstanding year in regard to the amount of progress achieved is the current one. It is highly probable that in the near future broadcasting will, for all practical purposes, reach its final stage of perfection; and the world will accept without question the incursion of radio into many branches of everyday life.

There are far more varieties of portable sets on the market now than last year. When first introduced these sets were designed chiefly for outdoor pleasures and were enclosed in large-sized dispatch cases, but the manufacturers to-day place them in cabinets to match house decorations and in other guises, such as dummy books bound in leather, and handsome suitcases.

Owing to their convenience they have become very popular in the home. “She shall have music wherever she goes” is becoming the refrain of the modern housewife.

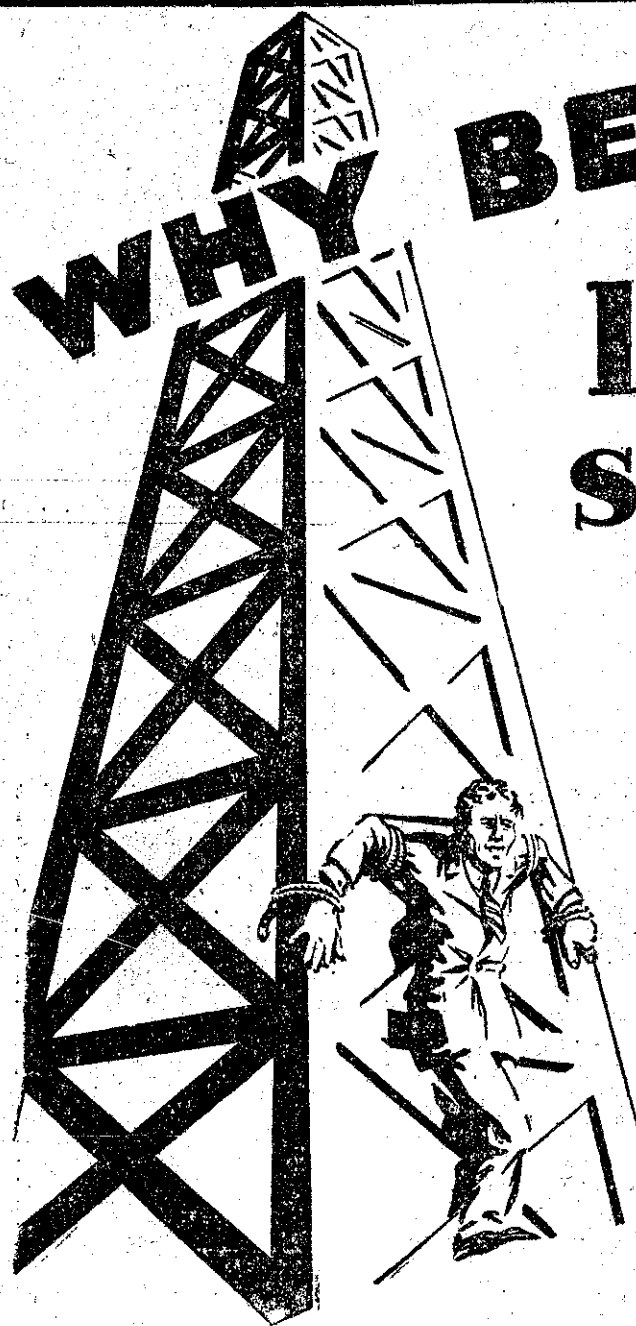
The transportable sets are robust and attractive in appearance, good for use in the home, and not too heavy or bulky to take out in a car or to figure as a contribution at a picnic. Compactness is fully demonstrated in the layout. It is claimed for these sets that while the running cost is very low, their efficiency is amazing. This is probably due in

most cases to the incorporation of one or more stages of screen grid high frequency amplification.

Careful valve design has resulted in improved results, and many manufacturers are now producing a wide range of A.C. valves for adapting battery sets to the mains. The moving coil type of loudspeaker is still in the front rank position for faithful reproduction, and improvements in the designs of cone speakers, such as the double cone and balanced armature units, have produced an instrument which, to the ordinary ear, gives excellent results.

Numbers of receiving sets are now fitted with plugging attachments for the reproduction of gramophone music. The extension of radio gramophones and the perfecting of internal appliances and simplification of control is, in fact, a notable development of the year. Some of the cabinet radio gramophones are entirely operated from the mains.

Radiovision is opening up another field of inquiry and investigation, and radiovision receivers offer a new hobby for the advanced experimenter. When the advances in the last few years of radio telephony are considered the possibilities of this new development can scarcely be visualised. Though at present only an experimental stage has been reached, yet progress is sufficiently far advanced to permit of the statement that a fresh era in broadcasting entertainment and education is commencing.



WHY BE TIED to your local station?

NO longer is there any need to depend solely on your local station for broadcast music. With the wonderful new Cossor "Melody Maker" you can pick your programme from Wellington, Auckland, Dunedin, Christchurch, Australian, Japanese, and even the American Stations.

You can build this wonderful Set in 90 minutes, but it is an interesting and pleasant job, so why hurry? No technical knowledge is necessary. You simply follow the clear instructions. No drilling. No sawing. No soldering. It's as simple as Meccano.

All you need to build this wonderful Receiver—Cossor Valves, handsome metal cabinet, wire, even the simple tools—are in the sealed carton ready for you to start assembly.

Post the coupon below for a Free Constructor Envelope which contains fuller details of the wonderful Cossor "Melody Maker."



£10

Price includes the Three Cossor Valves, the handsome Cabinet and even the simple tools—everything necessary to assemble this wonderful Receiver.

Fill in the Coupon NOW!

Agents for Australia and New Zealand:—
LYALL, WILLIS & CO., LTD.,
Billiter House, London, England.

NEW ZEALAND DISTRIBUTORS:—
G. HOWES & CO.,
250 CUMBERLAND STREET, DUNEDIN.

NORTH ISLAND DISTRIBUTORS:
RADIO, LTD., Commerce Building,
Auzac Avenue :: Auckland.

To MESSRS. G. HOWES & CO.,
259 Cumberland Street, Dunedin.

Please forward me free of charge one
of your Constructor Envelope which
tells me how to build the new Cossor
"Melody Maker."

Name

Address

Choose your own Radio Programmes
with the Wonderful NEW

COSSOR

"Melody Maker"

Britain's Greatest Radio Achievement

Treasure Hunting in the Twentieth Century



SOME two hundred and fifty years ago, Henry Morgan and his crew of free-booters sacked and burned Panama City. There are fairly well authenticated legends that the inhabitants, forewarned, buried their wealth in tunnels, cisterns and wells, which to-day are located among ruins covering hundreds of acres. Numerous attempts to locate the hidden treasures of Panama have been made, but beyond the recovery of a few pieces of plate and some ancient household utensils, they have proved unsuccessful.

Radio Apparatus Successful where Others have Failed

hydrophones were useless. By experiment it was demonstrated that metallic substances submerged in salt water acted like batteries and could be detected by magnetometers or magnetic needles, which would indicate the presence, approximate size, and approximate depth of the submerged metallic substances.

By making a magnetic survey of a body of water in the vicinity of a spot where a large metallic object was supposed to be submerged, and by plotting the isodynamic lines, it was possible to discover variations from the normal and plot the approximate location of the submerged object. It is obvious that this method was too slow and exacting to be practical for war-time use, but Lieutenant Williams became convinced of its usefulness for peace-

beachcombers had all tried to locate the hidden wealth of the ruined city, but none had met with any great success.

Leaving his employment with the salvage company, Williams proceeded to Panama, where by chance he secured a Government grant allowing him the exclusive right to search for buried treasure, provided he would accept three-quarters of the value of whatever he unearthed. He then commenced operations, employing the apparatus he had evolved for salvage purposes. For some reason or other, this method proved unsatisfactory, and he commenced experiments with a view to perfecting a more efficient equipment to aid him in his search. He accordingly selected a clearing in the jungle and proceeded to experiment

ends, are driven into the ground to be explored. They are connected to a generator having a frequency of 500 cycles. The receiving cabinet is suspended from a tripod and the receiving coil is mounted on the tripod so that it can be swung in either a vertical or horizontal plane. Four audio-stage valves and two audio transformers are used. A 250,000-ohm modulator is employed to regulate the signal volume, and headphones are used for reception.

In exploring a certain area, the receiving coil is rotated until the minimum sound is heard in the 'phones. The intensity of the disturbance indicates roughly the amount of metalli-



MR. W. E. ELLIOTT.

The possessor of a robust tenor voice, was at one time a member of the popular Warblers' Male Voice Quartet. He has also appeared as a soloist on several occasions, his numbers always being of a popular nature. Mr. Elliott has had considerable experience on various picture theatre circuits, and on the concert platform.

—S. P. Andrew, photo.



THE 2YA CHURCH SERVICES ADVISORY COMMITTEE.

Front row (left to right): Rev. T. R. Richards (Taranaki Street Methodist Church); Rev. C. V. Rooke, chairman (St. Thomas's, Wellington South, Church of England); Rev. F. E. Harry (Vivian Street Baptist Church). Back row: Rev. R. J. Howie (St. Andrew's Presbyterian Church); Mr. E. T. W. MacLaurin (Congregational Church); Pastor Carpenter (Uncle George), (Church of Christ).

—S. P. Andrew, photo.

Recently, however, Lieutenant Williams, formerly a radio officer in the British Navy, became interested in the recovery of the Panama treasure, and endeavoured to apply an ingenious adaptation of radio principals to aid him in his search. That his quest has met with at least a measure of success is evidenced by the gold plate and other relics already brought to light.

The apparatus used by Lieutenant Williams was developed by him initially for a totally different purpose, namely, for the detection of submarines in war-time. During the World War, the great problem confronting the Allies was the menace of the German submarines. It was only natural that Lieutenant Williams should become interested in the idea of detecting the presence of submarines by electrical or radio methods.

Underwater microphones, called hydrophones, were available for detecting the noise made by the propellers; but if the submarines were stationary beneath the surface of the water the

time salvaging work and retired from the Royal Navy to take a position with a company which was salvaging ships sunken off the coast of Ireland.

During his frequent voyages on the salvage ships, Lieutenant Williams, in considering the various methods used to locate sunken ships, wondered why these same methods would not apply to a search for minerals or metals buried beneath the surface of the earth. Being a seafaring man, he knew nothing of geology, but he had read of the buried treasure of Panama City, and determined to try and succeed where others had failed. More than 250 years had elapsed since the sack of the city. Soldiers, sailors, and

with a galvanometer, a few dry cells and hollow copper rods, until he evolved a method of exploration which was sensitive and apparently sound.

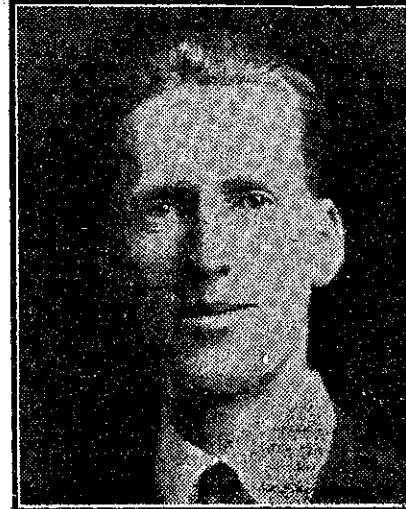
This method was given a trial near the ruins, and though it proved quite satisfactory in locating large metal objects, it was not sensitive enough to satisfy the treasure-hunter. He therefore proceeded to construct an apparatus which would embody the same principle and yet have a stronger transmitter and more sensitive receiver. As a result he evolved the apparatus which is in successful use to-day.

Two electrodes made of three-foot lengths of zinc-coated iron pipe with copper wires soldered at the upper

ferous substance discovered, and its position is found by plotting equipotential lines and comparing them with a plan of normal estimated equipotential lines.

This method of exploration has proved successful, and a great variety of treasure has been recovered. Gold and silver candlesticks, platters, incense pots, sanctuary lamps, necklaces, bracelets, and rings have been found in wells and cisterns. "Pieces of eight" were found in earthenware, caked with dirt, and had to be broken open and soaked in water in order to extract the coins. Personal effects such as keys, Toledo swords, and daggers were found mixed indiscriminately with copper kettles, bronze stirrups, and irons. The most valuable finds were the statues and altar pieces buried by the priests, but the coins and other common objects have a historical value.

Lieutenant Williams still expects to find chests of gold ingots which were hidden by the Treasurer of Old Panama in the tunnels connecting the monasteries and churches. The discov-



MR. VAL JONES.

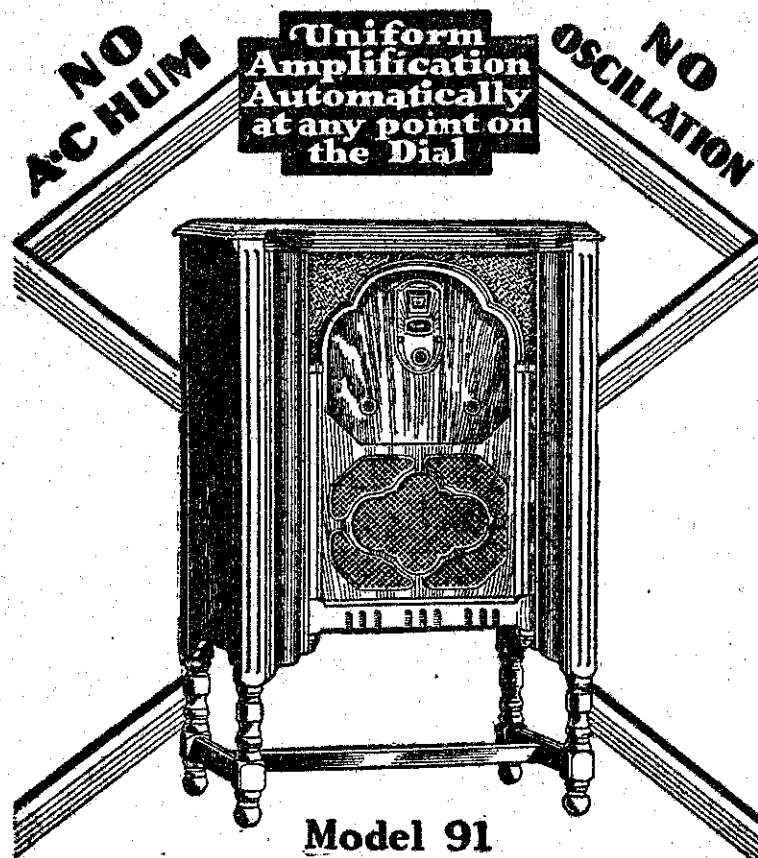
Is a popular young baritone, who comes from a well-known Wellington musical family, one of his brothers being a leading baritone with J. C. Williamson, Ltd. This young artist can sing ballads of musical comedy numbers equally well, being especially good in his interpretation of Sander-son's and Herman Lohr's compositions.

—S. P. Andrew, photo.

Majestic RADIO

offers Exclusively this

Wonderful Improvement



Model 91

£48

Outside Auckland, Wellington, £50
Christchurch and Dunedin

TERMS: £8 Deposit; £3 Monthly.

Power Detection and the new -45 tubes plus four tuned stages of radio frequency enable Majestic to produce the most powerful and selective radio set ever built. Absolutely no hum and no oscillation at any wave length. Automatic sensitivity control gives uniform sensitivity and amplification in both high and low wave lengths. Improved Majestic Super-Dynamic Speaker. Extra heavy, sturdy Majestic Power-Pack, with positive voltage-balast, insures long life and safety. Early English design cabinet of American Walnut. Instrument panel overlaid with genuine imported Australian Lacewood. Escutcheon plate and knobs finished in genuine silver.

FREE Home Demonstration

In every town there is a Majestic Radio Agent who will gladly arrange a demonstration in your own home without charge or obligation. Auckland residents should 'phone 42-992.

N.Z. Distributors: R. A. SPEDDING, LTD.,
Anzac Avenue, Auckland.



Lewis Fady
LIMITED

"THE BOX OFFICE,"
Queen Street, Auckland;
15 Karangahape Road;
also at Hamilton.

LEWIS FADY LTD., Queen Street, AUCKLAND
Please send me illustrated particulars of
Majestic Radios and inform what allow-
ance you would make me on my pre-
sent set, particulars of which I
enclose.
Name Address Ref.

ery of a single such chest or of the fabulous, life-size golden statue of the Virgin would enrich the inventor far beyond his wildest dreams and enable him to finance his proposed expedition to "Cocos Island," the scene of Robert Louis Stevenson's "Treasure Island."

These searches, the one now proceeding at Panama, and that contemplated at Cocos Island, are, of course, only two possible applications of a device which seems to hold many interesting possibilities.

Hearing Light and Seeing Sound

A Recent American Invention

SOUND becomes visible and light is made audible by an apparatus invented by an American engineer. A beam of light, propagated by a specially-devised arc, travels silently about the room, only to break into music when it encounters a target mirror. The equipment is known as the "photophone," and the transmissions are called "narrow-casting," to distinguish them from broadcasting.

In demonstrating the photophone, the inventor used gramophone records with the sending apparatus. The energy is sent over the light beam to the transforming and reproducing elements, which are mounted on a tripod some distance away. When the inventor held his hand in the path of the light beam, the music stopped, but immediately he allowed the light to filter between his fingers the sound recommenced and increased in volume. A cardboard disc, with holes of various sizes from a pin-hole to one of an eighth of an inch in diameter, gave varying degrees of sound volume when used to intercept the beam.

The light of a burning match was changed into sound by the reproducer. When the match was struck there was a rattling, crashing sound which lasted during the combustion of the chemicals. The burning wood gave off little sound. A similar demonstration utilising the varying light from a small dynamo-driven flashlight sounded like a siren.

A speaker at a microphone or a gramophone record can serve as the sound source, but the inventor for demonstration purposes usually employs the latter in conjunction with a magnetic pick-up by means of which the recorded music is transformed into electric current.

This energy is led to a mirror, one-thousandth of a square inch in area, delicately suspended in a magnetic field by means of wires. At one side is placed an ordinary automobile headlight lamp, the light from which is focused on the tiny mirror.

The mirror, quivering in time with the electric current, focuses the light by a lens into a narrow beam, which, pulsating at the frequency determined by the music on the record, is projected through space to the light-collecting mirror or lens of the receiving apparatus.

At this point another transformation must take place; the light must be converted to sound. The mirror or lens condenses the light on the photo-electric cell used in the apparatus. This

cell, which responds instantaneously to every variation in light intensity, translates the light into electric energy, and this after amplification passes to the loudspeaker.

The difference between sending sound over a beam of light and by way of radio is simply one of degree. The physical transmission in both cases is the same, except that different transmitting and receiving devices are used. In the case of light, frequencies of several hundred trillions per second give wave-lengths of the order of a fifty-thousandth of an inch. Broadcast waves are normally from 600 to 1500ft. in length.

The long wave of comparatively low frequency spreads out in all directions, but the beam of the light is essentially a straight-line affair and with a suitable forming lens or reflector can be conserved and sent over considerable distances without a substantial spread.

Broadcast waves will bend around obstructions and pass through walls, but the light wave will not bend, since the wave is so short in comparison with the size of the obstruction. It will pass through only such solids as are transparent.

The inventor has been able to transmit music across a street in broad daylight by the medium of a sufficiently powerful light beam; and at night, successful transmissions over a distance of three miles have been accomplished. The restriction on the distances over which communication can take place is compensated for by the highly directional effect obtained by use of the light beam. Thus, the advantage of this system over radio for purposes of secret communication in war-time is apparent. Because of its limitations, however, it would probably be used extensively only by warships and aeroplanes, where inter-vision is less unbroken than elsewhere.

An International Broadcast

Music of Nine Countries

A NEW step in international broadcasting was demonstrated recently on Thanksgiving Day in America, when a two-hour musical programme electrically recorded in nine countries during a period of only two months was carried to listeners throughout the United States. National anthems and folk songs of the countries represented, interpreted by military bands, orchestras and choruses, were heard exactly as they were transcribed at a sound studio in Europe.

The electrical recordings which render this broadcast possible were made in a portable sound studio which was taken overseas in August, packed in forty-four trunks and special cases. The apparatus is said to have taken six hours to set up and the same time to take down and pack. On one occasion, in order to keep an engagement with the Garde Republicaine Band in Paris after the bands of the three guards regiments had played for it in Great Britain, the equipment was carried across the Channel in two chartered aeroplane liners.

RADIO advertising of the future was recently fully discussed in a lecture delivered in London recently by Mr. Compton Mackenzie, the famous novelist. Newspaper advertising would not be superseded, he said, but radio advertising would be complementary to it and have its own special appeal. It might be that the radio would give general publicity to the name of any particular product and the detailed advertising would be made as before through the columns of the daily press. Mr. Mackenzie did not believe that the present method of radio advertising popular in America (whereby the whole programme was arranged by a particular firm who were then announced as the donors of the programme) was the right way to use wireless for advertising. "Radio advertising has got to come whether we like it or not," said Mr. Mackenzie, "and we must make the best of it."

PLANS are going forward for a new transmitting station near Buenos Ayres which will transmit programmes in English to the hundred thousand English-speaking people of the Argentine. It is estimated that the station will cost about £10,000. The British people in the Argentine are keenly interested in 5SW (the Chelmsford shortwave station), and look forward to the development of its service.

EVERY precaution has been taken at the Regional station in England to ensure against breakdowns of all descriptions. Practically every part of the equipment is duplicated, and in some cases, even triplicated. If one of the £75 transmitting valves, for instance, ceased to function another one can be brought into use in a second or two by moving a switch. The listener might hear a slight click, but that would be all. There is an elaborate system of bells and coloured lights to bring assistance immediately in case of trouble developing. If the engineer in charge is wanted the pressing of a button will ring a bell in every room in the building and also cause a red light to glow. Wherever the engineer

is he knows by the colour of the light that he is wanted urgently. Other officials can be summoned by using lights of green, blue, and so on.

THE B.B.C. has under consideration the question of building a short-wave station for the purpose of broadcasting programmes to the far corners of the Empire. At present experiments are being conducted at 5SW, the Chelmsford station of the Marconi Company, for short periods on five days of the week. It is not possible to obtain full use of the station, and it will be obvious that for Empire purposes, with times varying all over the world, full use is necessary. It is doubtful, however, whether the B.B.C. would be justified under its charter in using the money of British listeners in order to supply programmes to areas outside the United Kingdom. This is the difficulty confronting the Savoy Hill authorities, and it is with the object of seeing what is possible that certain negotiations, the nature of which are being kept secret, are going on.

THERE are now over 2000 schools definitely known to be taking the wireless education courses of the B.B.C., and it is probable that others are taking them without officially notifying the fact. Varying degrees of enthusiasm exist in different parts of the country. It has been recommended that in building new schools classrooms should be fitted so that wireless sets could be plugged in and loudspeakers

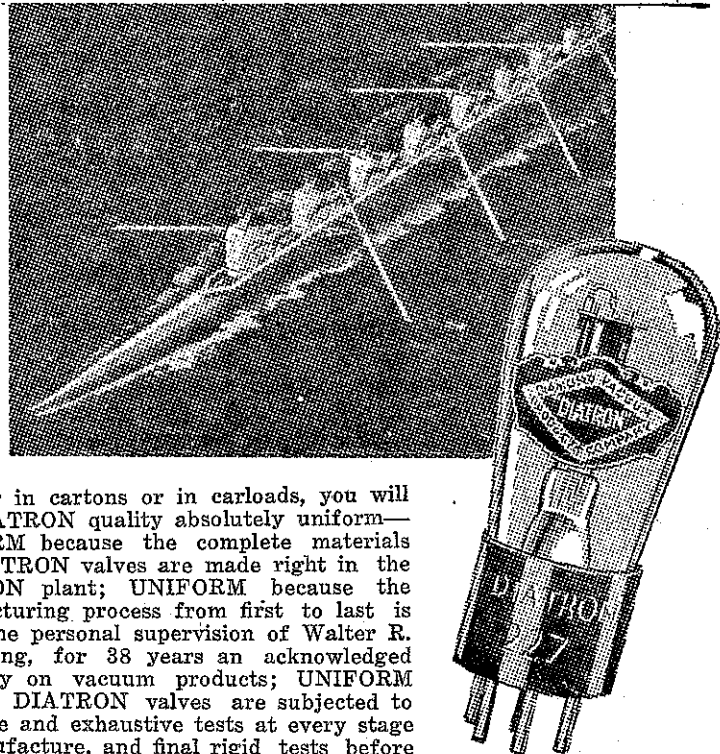
carried about from room to room. The British system of wireless education is finding imitators all over the world, and visitors from foreign countries go to London with comparative frequency for investigation purposes. Wireless education systems similar to some extent to that at present in existence in England may be found in use in Spain,

Czecho-Slovakia, Hamburg, Sweden, and Vienna.

AN original idea indicating the possibilities of the sound amplifier field as a means of advertising was included in a display given by a canned milk company at an agricultural exhibition recently held in America. In their display stall a model of a cow bearing the inscription "The Talking Cow" was set up. Visitors to the exposition could ask the cow questions and would receive an immediate reply, ostensibly from the cow itself. The arrangement used was to mount a concealed microphone inside of the cow's head behind the opening provided by one ear. This microphone was connected through an amplifier to a pair of headphones worn by a man who was concealed some distance away. He in turn was equipped with a microphone which fed into an amplifier, the output of which was connected to a speaker mounted within the cow.



UNIFORMITY



Whether in cartons or in carloads, you will find DIATRON quality absolutely uniform—UNIFORM because the complete materials for DIATRON valves are made right in the DIATRON plant; UNIFORM because the manufacturing process from first to last is under the personal supervision of Walter R. Armstrong, for 38 years an acknowledged authority on vacuum products; UNIFORM because DIATRON valves are subjected to complete and exhaustive tests at every stage of manufacture, and final rigid tests before dispatch. DIATRON valves are built throughout to the most exacting standards: that is why DIATRON is definitely a superior valve—superior in performance, in construction, in durability.

Insist on the Valve in the "Blue Diamond" Carton.

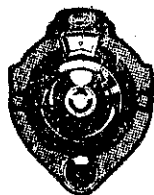
N.Z. Distributors: N. R. CUNNINGHAM, LTD., Masterton.

DIATRON

PRECISION

RADIO VALVES

Add to the Efficiency of Your Set



VELMO

Emmco's Vernier Dials will do this

ALL EMMCO
PRODUCTS
ARE FULLY
GUARANTEED.

Mello Metal, Oxy Copper or Silver...	9/6
Same illuminated	12/6
De Luxe Bakelite	9/6
Same, illuminated	13/6
Standard Bakelite, Black or Mahogany	7/6
Velmo Dial.....	6/-
Baby Velmo	5/-
Back Panel Dial	5/6
Knobs, Black or Mahogany.....	1/-

MADE BY ELECTRICITY METER MANUFACTURING CO., LTD.

Distributors for New Zealand:

JOHNS, LTD., Chancery Street, AUCKLAND.

THOS. BALLINGER & CO., LTD., Victoria St., WELLINGTON.

L. B. SCOTT, LTD., Worcester Street, CHRISTCHURCH.

The New Zealand Radio Record

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX, 1032, WELLINGTON.

Published Weekly. Price 3d. Subscription Post Free in advance, 10s. per annum; booked 12s. 6d.

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

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.

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

WELLINGTON, FRIDAY, DECEMBER 20, 1929.

THE CHRISTMAS SEASON.

AS this is the last issue which will reach readers before the festive season we desire to take the opportunity of extending the compliments of the season. Radio has a definite part to play in Christmastide festivities. In preparation for the holiday spirit and to assist trade friends in facilitating sales, all YA stations will begin special extended sessions as from December 16 and 17. Starting them at noon, in lieu of 3 p.m., opportunities for demonstration will be amply afforded. All special services and sporting activities offering, will, of course, be broadcast, and listeners scattered far and wide enabled to enjoy through their radio sets close contact with the spirit of the season.

IT is interesting to note that the goal of 50,000 listeners set for attainment by the end of the year has been gained. It is also, we think, striking in this connection, that this gain has been secured not by any outstanding "stunt" or event of popular interest, but simply by a high standard of good service. Profiting by experience and close study of the popular taste as evidenced by correspondence, contact with the various committees of public relations, and both anticipation and interpretation of the public's wishes, the Radio Broadcasting Company has steadily built up a schedule of service which is successfully attracting new adherents. That, after all, is the final measure of success. Those who are prepared to pay for the service are steadily growing. By reason of this success and the financial return which it brings, the Company has been able to progressively expand its programmes until now it is interesting to note it is giving practically four times the hours of service it contracted to give. Even yet, the service is not perfect—nor, we imagine, will it ever be! There is still the silent night. There are still some hours not filled by broadcasting! So some demand extensions and more extensions. We join with them in so far as the silent night is concerned. Listeners, now substantially won to the policy of "sticking to the local station" and not ranging far afield with its risk of static and distortion, would like that abandoned. This is a matter of economics, and we imagine that it will be the next major concession to be granted listeners. It will, of course, represent a definite extra cost in the items of operating and programme provision, but looking back on the advances made over the last

twelve months, we strongly hope that the incoming twelve months will see the abandonment of the silent night.

A FEATURE of the past year has been the attention devoted to relays from provincial centres. Taranaki has secured her relay station, and more might have been done in other fields had conditions permitted. Unfortunately that was not the case, but as an alternative attention was devoted to organising relays from important provincial centres. This has been successful in broadening and stimulating interest in radio on the part of those communities, and has so contributed to the growth of membership in the listeners' circle. We look forward to further development of this field in the future.

Mr. Jock Lockhart

River Concert Broadcast

To Appear at 1YA and
2YA

THE well-known Christchurch entertainer, Mr. Jock Lockhart, whose Scottish humour is hugely appreciated through the South Island and everywhere that 3YA reaches, has been engaged by both 2YA and 1YA during the Christmas week. Mr. Lockhart's humour is original, and is of a type that everyone enjoys. When in Dunedin at the official opening of 4YA he created a furore. He also performed at the Christchurch Radio Exhibition.

He will be appearing at 2YA on December 24 (Christmas Eve) and on December 31, when he will be heard in Scottish songs and patter. His 1YA dates are Friday, December 27, and Saturday, December 28.

Miss Marjorie Skill

To Sing at 2YA

A WELL-KNOWN Sydney concert singer and broadcasting artiste, Miss Marjorie Skill, lyric soprano, has been engaged by 2YA for the after-church concert on Sunday, December 29. To one of her songs, "Lo, Hear the Gentle Lark," Signor A. P. Truda will play a flute obligato.

Radio on Ferries

PASSENGERS across the harbour to Devonport by the ferry steamer Makora will be entertained in future by radio. Experiments have proved very satisfactory, and may result in the scheme being extended to other boats run by the Devonport Steam Ferry Company.

The afternoon and evening concerts will be received from station 1YA on a crystal set in the captain's cabin, and an amplifying and loud-speaking system will distribute the music throughout the upper deck and cabins. The string trio which entertained passengers in past years has been disbanded, but there is a possibility of other musicians playing on the boats during the early afternoons if the radio receiving system is not extended. The apparatus was installed on the Makora when she was in dry dock last week.

THE proposal has been made and arrangements are in train for the broadcasting from Hamilton of a concert to be given by the Orchestral Society and the Philharmonic Choir on a river steamer on the Waikato River. The concert will take place during the full moon in February.

Aunt Pat's Party

3YA Children Entertained

THE beautiful grounds of Dr. Robinson Hall, Riccarton, rang with the shouts and laughter of happy children on Saturday afternoon. It was a party given by Aunt Pat of 3YA (Miss Maynard Hall) to the young people who had assisted her at the children's sessions during the year.

Children of all ages were there, even some tiny tots who had had to stand on chairs when they sang before the studio microphone. One of those present was a blind girl who is a regular contributor to the 3YA children's sessions. Every school in Christchurch was represented by at least two pupils. Uncles and aunts, and other grown-ups too, were present.

Everyone entered enthusiastically into the spirit of the occasion, and made it thoroughly enjoyable for themselves as well as for others. Games and scrambles and a treasure hunt, with crab races, kangaroo races, three-legged races, and other novelty attractions provided entertainment. Prizes galore were won and lost. Those who won were delighted; those who lost tried again with increased zest. It was a very merry party. There was one thing which all received, and that was a charm from the East, the three monkeys, and Aunt Pat advised each young recipient to take to heart the motto conveyed, "See no evil; hear no evil; speak no evil."

To make the afternoon's entertainment complete there was plenty of ice cream, and any amount of other things to eat or drink. One great attraction at the party was a remarkable cake decorated with models of the graceful towers of 3YA. This cake was cut by Aunt Pat, and every child had a piece. As the finale to the afternoon, there was the usual broadcast session. This took place in the nearby Riccarton Hall, and was a wonderful success.

Use Our Booking Offices in Advance **IT'S WHAT YOU REMEMBER.**

S-O-S

**TRAVEL IN COMFORT BY
CAR**

**WELLINGTON — PALMERSTON
NEW PLYMOUTH**

It's not what you read, but what you remember that is of benefit to you. Try to remember that if you get chapped hands, rough hands, stiff hands, or almost anything wrong with your hands, your troubles will generally cease if you rub Sydal well into them. Sydal's use would have saved these troubles.

*The English Cricketers**An Interesting Broadcast from 2YA*

A VERY enjoyable broadcast of special interest to all lovers of cricket took place from 2YA, Wellington, on the evening of December 12, when the members of the English M.C.C. team who are at present touring New Zealand were introduced to listeners. Mr. A. A. J. Gilligan, the captain of the team, at the commencement of his address remarked that he was glad of the opportunity to speak to New Zealanders, many of whom he would meet during the ensuing tour.

Before leaving England the team were entertained by the New Zealand Association at a luncheon given in their honour at the Savoy Hotel in London. There he met New Zealand's future Governor-General, Lord Bledisloe, who remarked that he too would shortly be leaving for New Zealand in charge of a party of agriculturists, who intended to study farming under New Zealand conditions. Lord Bledisloe at that time had received no indication of his subsequent appointment as Governor-General of New Zealand.

"While in Australia," continued the captain, "we had a very strenuous time. We were there five weeks, travelled over five thousand miles, and played five matches. We were rather unlucky as regards casualties, for we lost Tom Bowley, the only member of the team who has ever visited New Zealand. He left for New Zealand a week or so ahead of us, and is now undergoing treatment for sciatica at Rotorua."

Mr. Gilligan stated that they had a splendid team, and that the members composing it were all good cricketers. They expected varied conditions, and though the tour would be very strenuous they were anticipating a pleasant time. The team had already heard much about New Zealand scenery and fishing, and most of the descriptions had sounded too good to be true.

In conclusion, Mr. Gilligan stated that the people of New Zealand were, judging by both the splendid civic and unofficial welcomes extended to them, very friendly and hospitable. "New Zealand," he remarked, "is the best country we have yet visited, and we are all looking forward to a very pleasant tour."

Mr. Duleepsinhji then spoke, remarking that he had heard much about New Zealand, and was very pleased to be here at last. The team had experienced a very strenuous time in Australia, and practically all the scenery they had been able to see consisted of cricket grounds, railway stations, and the hotels they stayed at. He discussed the state of cricket in Australia, and mentioned several well-known cricketers from that country who were likely to be included in the Test Team against England next year. "I was very pleased," he said in conclusion, "when I heard that the New Zealand Cricket Association had sent a special request to the M.C.C. asking them to include myself in the team."

The next member of the team to speak was Mr. Woolley. "It has always been my desire," he stated, "to visit New Zealand, and now that wish has been fulfilled." He remarked that as

*"A Merry Christmas to All"**Seasonal Broadcasts*

MORE people than ever will be listening in this Christmas season, seeking entertainment from the broadcasting service. The Christmas programmes have been planned to make the widest possible appeal to all. From Handel's "Messiah," and "Midnight Mass" to the veriest radio vaudeville, all fields—even the racing fields—will be covered during the season. Christmas week will see new sets, new listeners, and new pleasures for old listeners. The New Zealand broadcasting stations will all do their bit to make the coming Christmas season a merry one.

ON the Monday before Christmas, at IYA a very bright concert will be provided by Miss Lola Solomon (soprano), Mr. Frank Sutherland (bass-baritone), Miss M. Clouston (elocutioniste), Mr. Dan Flood (humorist), The Snappy Three (vocal and instrumental), and Ingall's Hawaiian Quartet. At 2YA there will also be an entertainment of outstanding merit. The vocalists will be Mrs. Walter Fuller (soprano), Miss Ngaire Coster (mezzo-contralto), Mr. Roy Hill (tenor), and Mr. S. E. Rodger (baritone). Mr. Cedric Gardiner will give elocutionary items, and an excellent instrumental programme will be provided by the 2YA Orchestra, under Signor A. P. Truda. There will also be a brief organ recital by Mr. Henry Mount, the talented organist at St. Gerard's Redemptorist Church. 3YA will have a band concert that evening. The vocalists will be Miss Winifred Barrett, Miss Merle Parry, Mr. Sydney Armstrong and Mr. Robt. W. Rofe. Mr. James Laurenson will give a character sketch of "Scrooge." 4YA has the well-known Irish opera, "The Lily of Killarney," scheduled. The vocalists will be the 4YA Harmonists and a specially engaged orchestra will play.

ON Christmas Eve, Tuesday, all stations will present appropriate programmes, which will continue till midnight. Christmas carols will be featured. Prominent on IYA's programme will be elocutionary items by Mr. Joe Clark, selections from Dickens's "Christmas Carol." Other elocutionary numbers of a humorous nature will be given by Mr. A. McElwain. A vocal programme will be provided by the Lyric Quartet, while the Studio Octet, under Mr. Eric Waters, will supply the instrumental music. 2YA has incorporated in its programme a Christmas play, "The Stranger," to be produced by Mr. Victor Lloyd. Mr. Jock Lockhart, the well-known 3YA Scottish humorous entertainer, will be contributing songs and patter. The Tramways Band has also been engaged for the latter portion of the evening, playing carols, and at midnight the celebration of Midnight Mass will be relayed from St. Gerard's Redemptorist Church. Programmes of a similar nature will be followed by 3YA and 4YA.

*News from England A Wireless Telephone**For Milford Track*

THE B.B.C. officially announces that it has adopted a practice of expressing frequencies in terms of kilocycles per second. The frequencies of the B.B.C. transmitting stations has hitherto been indicated in terms of kilohertz, 1000 cycles per second. The name kilohertz has never been popular, and, in fact, has been subjected to a good deal of ridicule, and listeners in England will no doubt feel relieved that this cumbersome name has now been discarded.

he had sailed from Australia a week or so ahead of the rest of the team he had had the opportunity to visit many cricket grounds around Wellington. He stated that many of these are situated in beautiful spots, and in his opinion were good grounds. "With such grounds as these at their disposal," he concluded, "young New Zealanders have no cause for not making themselves famous at the national game of cricket."

The whole of the speechmaking was accompanied by much cheering and hilarity from the remainder of the team, and who were evidently outside the studio watching the performance with interest. At the conclusion of speeches each of the remaining members of the team was introduced.

THE only wireless telephone in commercial use in New Zealand was that installed last year as a means of communication between Glade House at the head of Lake Te Anau and the Te Anau Hotel at the southern end of the lake—a distance of some 40 miles. Unfortunately, soon after its installation it was destroyed when Glade House was burnt down. However, tenders for rebuilding Glade House have been let, and the wireless telephone will be reinstalled within four or five weeks.

At the present time, should a mishap occur on the Milford Track, there is no way of getting in touch with civilisation, except when the boat calls three times a week. In the off-days, of course, there is no means of getting through, and in the case of anybody badly injured the delay might make all the difference. Should the installation prove satisfactory it is intended to place similar equipment in other inaccessible parts of New Zealand where communication with the outside world is a matter of days.

*Mr. and Mrs. J. W. Bailey**To Open Dramatic School in Auckland*

MR. and Mrs. J. W. Bailey, the well-known teachers of dramatic art and popular entertainers, will be heard on the air at 2YA on Friday, December 27. Seven years ago Mr. and Mrs. Bailey commenced a school of dramatic art in Wanganui, and they have been instrumental in raising the standard of elocution in that city, bringing to light a great deal of latent talent. A year ago Mr. Bailey formed the Little Theatre Players, producing during the year "And So to Bed," the great Pepsy comedy, "Pros and Cons," by Kenneth Barnes, administrator of the R.A.D.A., "Danger," and a big production of the pantomime "Aladdin," for which every seat in the Opera House was booked for the first performance and hundreds unable to gain admission. Last year Mr. Bailey produced "French Leave" for the Wanganui Amateur Operatic and Dramatic Society. Altogether, about fourteen successful productions have been staged in Wanganui. Pupils in the school have gained prizes in various competitions, twenty-three championships, and seven scholarships completing a unique record.

The people of Wanganui are regretting the fact that Mr. and Mrs. Bailey have decided to leave Wanganui and take up residence in Auckland, where they will open their school of dramatic art in that city early in February. The influence of their work in Wanganui will be greatly missed. As a farewell performance, Mr. Bailey is producing a gorgeous version of the Christmas pantomime, "Cinderella," introducing some spectacular novelties new to New Zealand.

*An Empire Broadcast**The "Roll of Drums"*

DANIEL WEBSTER'S famous panegyric on the far-flung nature of our Empire, when he described how the British drum-roll followed the sun round the world, is recalled on reading a letter from a listener in California who picked up 2YA's rebroadcast of 5SW on Armistice Day. He states he heard clearly the singing, the roll of drums, and the bugle calls. That drum roll went round the world, and not only over the British Empire, in a manner that Daniel Webster never dreamed of.

An ex-Fellding resident, now living at Powell River, British Columbia, Canada, writes to report that he heard 2YA. He adds: "It sounded pretty good to hear your station, as I lived in Fellding for five years before coming here."

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

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

Now Available.

Pioneers' Night at 4YA Broadcasting a Show

Interesting History Recalled

THE broadcasting of "A Night With the Pioneers," by 4YA on Saturday, December 21, when a particularly interesting and entertaining programme will be presented, will give a radio picture of life on the emigrant ships, and of life in the early days of the Otago settlement. Some historic musical instruments will be played—the first organ, the first piano, an oboe used by Robert Burns and bagpipes which were played at the Relief of Lucknow. Old sea captains will sing chauties.

In connection with the founding of Otago, an interesting incident is recalled. On March 21, 1848, the "John Wickliffe," the first of the immigrant ships to reach Otago, dropped anchor off Tairaroa Heads. In answer to their signal guns, out from the harbour mouth shot two whale-boats, one bringing Richard Driver, the pilot, and the other Mr. Kettle, the surveyor in charge of the laying-out of the settlement. Pulled by their stalwart Maori crews, who in the whaling days of the previous decade had learnt to rival their European teachers in the handling of small craft, the boats raced across the sunlit waters. Imagine the eagerness of the immigrants as they sought knowledge of the land of their dreams from their new-found friends; picture their half-credulous bewilderment as they listened to the banter and tall tales of Dick Driver and his grinning dusky comrades.

That night the "John Wickliffe" lay off the land and, to while away the time, several of the new arrivals produced the very latest in fishing tackle and, vainly sought to land the barracouta that teemed in the silvery waters. With good-humoured contempt, the Maoris split up an old cask stave into pieces, which they decorated with a bit of red rag, a flax string and a hook, and soon caught a boatload.

Incidentally, amongst the Maoris who are taking part in the radio representation, are several descendants of Karētai and Tairaroa, the chiefs of Otakou in the days before the coming of the whites.

Early on the following morning, March 22, the "John Wickliffe" entered the harbour, sailed past the little village of Otakou, Port Daniel, which even at that early date contained thirty-four white families, and finally cast anchor in Kōpūtal Bay, as Port Chalmers was called in those days. Before the disembarkation of passengers and stores had been completed, the weather changed. Those who came by the "Phillip Laing," some three weeks later, commenced their new life under conditions that must have recalled vividly to them the misty moorlands of their old homes in far-off Scotland.

4YA Relays from Invercargill

THE outstanding success of the Royal Show held in Invercargill last week exceeded the most sanguine expectations. The show took place on December 10, 11 and 12 and broadcasts on relay were carried out each afternoon by 4YA. These were very successful. The Broadcasting Company was represented by Mr. J. Ball, editor-announcer, and everything was carried through without a hitch.

As well as the Governor-General, Sir Charles Fergusson, speakers who broadcast were:—The Hon. G. W. Forbes, the Hon. P. A. de la Perelle, Mr. J. D. Campbell (Mayor of Invercargill), Mr. W. Perry (president of the Royal Show Society), Mr. G. Troup (Mayor of Wellington), Mr. Marshall (member of the Agricultural Board), Mr. F. Mills (judge of Ayrshires), Mr. Arthur Greenhalgh (side-show proprietor), Mr. A. W. Green (judge of milking shorthorns), Mr. J. P. Kallaugher (secretary of the New Zealand Friesian Association), Mr. A. Reid (judge of Aberdeen Angus), Mr. E. Short, of Feilding (judge of Romneys), Mr. John Gilkison, Mr. Adam Hamilton, M.P., and Mr. J. Price (president of the Southland A. and P. Association). Mr. G. H. Holford, late associate-editor of the "New Zealand Dairy Farmer," broadcast a description of the grand parade.

In the course of his address, Mr. Price referred to the broadcasting which had taken place. He said:—"It has been suggested to me that it would be fitting that I, as president of the Southland A. and P. Association, should, on the occasion of this, the last broadcast in connection with the Royal Show, address a few words especially to the listeners over the air. It affords me very great pleasure to fall in with that suggestion. Indeed, I esteem it a privilege to be enabled to get into personal touch, as it were, with those interested folk who have had perforce of circumstances to be content to hear about, instead of seeing for themselves, the show which is now nearing its conclusion. It is, I think you will agree, one of the wonders of the wonderful age in which we are living that distance no longer prevents us from hearing about that which we cannot see, and that radio makes it possible for us to participate in functions which we cannot attend. I feel sure that many to whom I am now speaking would not have missed this truly Royal Show had it been possible for them to be present."

In concluding, he said:—"And now it remains for me to express my association's warm appreciation of the courtesy and enterprise of the Broadcasting Company in sending its representative to Invercargill for the purpose of putting the show on the air."

This is not the first occasion on which the Broadcasting Company has gone out of its way to make Invercargill and Southland figure becomingly on the map of New Zealand. We entertain, as I am sure do many listeners, pleasant recollections of this year's May Fair broadcast. The request of the Southland League that the Royal Show might be broadcast met with a ready response from Mr. A. R. Harris, general manager of the Broadcasting Company, and I desire to assure him that the result of his enterprise has been highly gratifying to us.

"Just here I should like to say that the first day's broadcast, through a purely personal incident, served to bring forcibly to my notice the boon which radio is providing to the aged and infirm, and all who from one cause or another are confined to their homes. My mother, who, unfortunately, was not able to attend the show, listened in to the broadcast of the opening ceremony, and that evening assured me that her wireless had enabled her to follow the proceedings from beginning to end, and that she had not missed a word of any of the speeches, and that my own voice had come through to her as clearly as if I had been in her room when speaking. I rather fancy she is listening to me now, and if the regulations did not forbid I should like to send her a 'cheerio' message. But I must not transgress further. With a full sense of the splendid service radio is rendering to all classes of the community, I again tender to the Broadcasting Company the thanks of the Southland A. and P. Association, and I think I may add the thanks of the people of Southland and Invercargill."

Auckland Notes

(By "Call Up.")

IN succession to Mr. D. H. Wrathall, transferred to 4YA, Mr. Owen Pritchard has been appointed to the position of programme organiser at 1YA. Mr. Pritchard is an Auckland by birth, but has travelled very widely, and has had a very extensive experience of entertaining, so should be well qualified for his new duties. He has been closely connected with the local station since his return to his native city early in the year.

AUCKLAND has been chosen for the first Dominion Convention of the N.Z. A.R.T., who are to meet here from December 27-29. Meetings and discussions will be held in the Ley's Institute. The social side of the gathering has not been neglected, and arrangements are in hand for a picnic and a dinner. The dates of the convention have been specially chosen as the most suitable time for members to attend, the Christmas season and festivities then being over, while the New Year activities have not yet commenced. A large gathering is expected, including a number of visitors from the South Island.

THE ranks of the Auckland Uncles will be depleted on Tuesday, December 10, on which date Uncle George will broadcast to the children for the last time from 1YA. He is leaving to take up his residence in Sydney, and will be greatly missed by many children in the Auckland district.

The Christmas Seal

A Deserving Cause

AN appeal was recently broadcast from the New Zealand stations giving full details of the Christmas Seal and of the splendid work it is hoped to accomplish should the public of New Zealand prove generous in their response to this deserving cause.

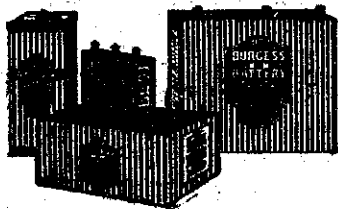
Details of the scheme were given by the secretary of the G.P.O., Wellington, who said that the "Christmas Seal" is now on sale at post offices throughout the Dominion. Each stamp, which costs 2d., has a postage value of 1d. and a charity value of 1d. The purchasing of the combined stamp is entirely voluntary. It is proposed that the proceeds of the appeal in the first instance shall be devoted to the establishment in selected sites in the Dominion of health camps for undernourished and debilitated children, or of children who have been "contacts" with cases of tuberculosis in their own homes. These health camps will be under medical supervision, and adequate nursing assistance will be provided.

The secret of the success of the Charity stamp scheme lies in the fact that no one, however poor, need forgo the satisfaction of subscribing his mite to the good cause.

It is understood from the Health Department that many children who are contacts of tuberculosis in their own homes and who ultimately contract, and die of the disease would be spared if at the time of contact and before the disease developed they were removed for a time to a health camp in the country. In all measures taken for the welfare of such children lack of financial resources becomes evident. There is no disease where good nutrition is more imperative from the preventive as well as the curative aspect than tuberculosis; but where this disease is associated with poverty, good nurture is impossible. For a large number of affected children, their main hope lies in removal from their present environment for a time at least. The results of health camps already held have amply demonstrated what can be done by a simple regime of adequate rest, fresh air, sunshine and proper feeding.

It is believed that most people will welcome the opportunity of assisting in some small way towards brightening the lives and improving the health of the children who it is proposed should benefit. The outgoing in the case of each individual giver will be a comparatively small sum; but, if each person contributes, the aggregate result for the Dominion as a whole will be a substantial sum of money. The Charity stamp scheme of raising funds for deserving causes has proved a success in other countries, and there is no reason why it should not prove a success in New Zealand. It has been in operation for 21 years in the United States of America; and the amount raised in a recent effort in that country was over one million pounds. Prevention is better than cure; and the taking of preventive measures against tuberculosis will prove beneficial not only to many individual New Zealand homes, but to the Dominion as a whole.

IN connection with the commencement of the Christmas Seal campaign in New Zealand, the Hon. A. J.



**BURGESS
RADIO
BATTERIES**

Stallworthy, Minister of Health, has requested the publication of the following appeal:—"On December 11 we launched our Christmas Seal campaign to stamp out tuberculosis. The seals are now obtainable at all post offices throughout the Dominion. In the fight against incipient tuberculosis childhood is the period to which our attention must be particularly directed. It is appropriate that the first claim upon funds raised by the inaugural Christmas Seal should be the children's health camp movement. It is hoped that the success achieved will be such as to enable a large extension of these camps throughout the Dominion. The money thus invested will bring a national return in the added vigour and freedom from disease of the children concerned, and in addition will afford them throughout life a series of healthful happy memories."

"Every portion of New Zealand will benefit. There will be co-operation with existing local institutions. I confidently appeal to all generous-hearted fellow-citizens over the holiday period to put a Christmas Seal on every letter posted. Whenever we buy a postage stamp let this be our kindly thought, 'A penny for health.' Thus in the true spirit of Christmastide we can show our practical sympathy with thousands of sufferers, our love for hundreds of boys and girls, and help forward a great nation-wide health campaign."

Topical News

MR. KEITH stated in his lecture to the Wellington Radio Society that Sir William Crookes, inventor of the Crookes tube used in X-ray work, successfully accomplished the sending and receiving of electrical waves through the air in his garden in 1892—four years before Marconi came into world-wide prominence. Sir William announced that he had proved that telegraphy without the use of connecting wires was possible over a range of a few hundred yards. Professor Muirhead and Sir Oliver Lodge, in 1894, sent wireless signals to one another over short distances. It was Professor Branley (a Frenchman), however, who first discovered the "coherer," the first wireless detector. Marconi next invented the magnetic detector, which was followed by the crystal detector, and in October, 1922, by Professor Fleming's detector valve.

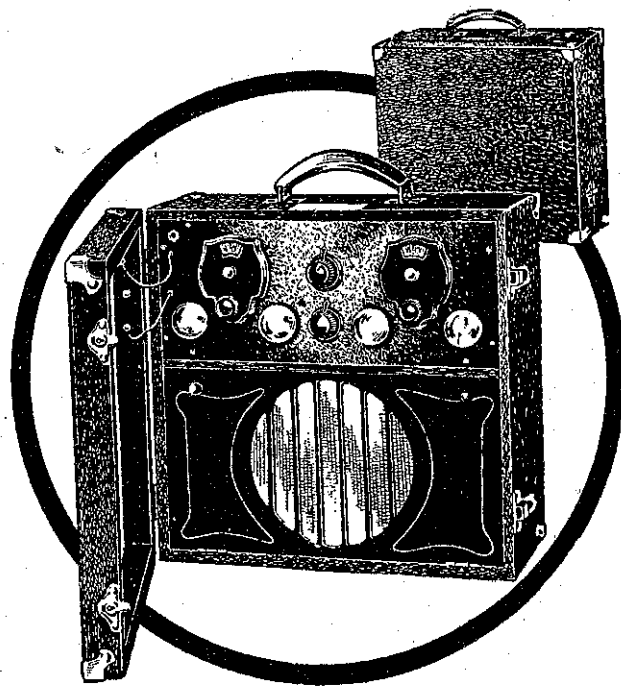
A UNIVERSALLY popular broadcast item from the New Zealand and Australian stations at present is "The Toymaker's Dream." It is a catchy melody that ensures continued popularity.

MR. KEITH, at the conclusion of his recent lecture before the Wellington Radio Society, displayed a remarkable collection of old-time and modern radio parts and valves, British and Continental. He also handed around a new screen-grid a.c. valve, with the amazing rated amplification factor of 1200. The valve, which is new in New Zealand, is about double the size of the ordinary battery type 5-volt detector valve. It could not be used in the ordinary American factory-built set, but could be employed in a circuit specially made for it.

Get your AIRZONE NOW

Have a Real Holiday with your AIRZONE PORTABLE

New realms of enjoyment are unlocked by Airzone for it means Radio and Entertainment in all its variety wherever you go! Airzone is a happy companion for your days out-of-doors—on the sea, at the beach, in the bush or touring in the car.



AIRZONE engineers have designed AIRZONE to combine economy, power, portability, reliability and tone. Philips Valves and a Magnavox Speaker are standard equipment. The aerial has gone and you have now a 4-valve set—complete, compact, portable—only 27lbs. in weight, and as easily carried as an attache case.

Guaranteed unconditionally for 12 months. See and hear it at your nearest dealer.

WELLINGTON:

Electrical Supplies, Ltd., 37 Lower Cuba Street.

F. J. W. Fear & Co., 63 Willis Street.

Whitcombe & Tombs, Ltd., Lambton Quay.

SOUTH ISLAND:

Royds-Howard Co., Christchurch.

Laidlaw & Gray, Ltd., Dunedin.

N.Z. DISTRIBUTORS:

J. A. SMYTH & CO., 71 Victoria St., Wellington

Christmas Radio Bargains

Our Closing-down Sale is your opportunity to secure acceptable Radio Gifts at Bargain Prices. Stocks must be cleared regardless of cost.

All Apparatus listed is guaranteed in perfect condition.

The "Travler" 5-valve Portable Radio Receiver is an ideal gift. Can be taken on holiday trips or used at home. No aerial necessary. Gives good, clear speech and music. Simple to handle.—Original Price, £27/10/-.

Our Special Sale Price (complete), £16/10/-.

The Telefunken "Arcolette" 3-valve All-Electric Radio—Operates from 230-volt light mains. No batteries of any kind required. Simple to operate and always reliable. Neat, attractive appearance. Exceptionally good tone. Fitted with plug for Gramophone Pick-up. This is a genuine 3-valve (and rectifier) All-Electric Receiver at a price never before offered to the public.—Original Price, £20/10/-.

Our Special Sale Price, complete with All Valves and Speaker, £15/10/-.

Further reductions in Patent Gramophone Pick-ups.—We now offer the well-known Patent De Luxe Tonearm type, complete with volume control and adaptor for valve socket at 42/6 complete. This is an ideal gift.

"Mini-lux" Miniature Mother-of-pearl Speakers.—Will carry volume from a 5-valve set with good tone. A beautiful gift at half original cost.—Special Sale Price, 21/6.

Telegraph Keys.—Heavy brass on polished wood base. Suitable for Morse practice or for amateur transmitting set.—Special Sale Price, 12/6.

Portable Gramophones. In neat cases with carrying handle and record compartment. Just the thing for the beach. Will play full-sized records.—

Special Sale Price, £23/10/-.

Better quality, with padded leatherette cases.—£25/10/- and £26/7/6.

"Aero" Coil Kits, containing 1 RF coil and 1 aerial tuning coil with variable reaction. These are high quality and give exceptional results. Each kit is supplied complete with 31-page booklet containing full instructions and diagrams.—Original Price 45/-.

Our Special Sale Price 9/6 Short Wave Coil Kits, containing a complete set of plug-in coils for constructing a short wave receiver. Enamelled wire on rigid formers. Range, 15 to 130 metres. Usual Price, 60/-.

Our Special Sale Price, 27/6. Browning-Drake Foundation Units, consisting of drilled and engraved panel and baseboard with valve sockets mounted for constructing a 5-valve official Browning-Drake Set. Best quality Formica.—Usual Price 45/-.

Our Special Sale Price, 12/6. Chromax Flexible Hook-up Wire.—Best quality covering, ensuring protection from short circuit. 25ft. coils.—Usual Price, 3/6.

Our Special Sale Price, 2/-.

"Polar" Variable Condensers, highest quality, ball-bearing, plated.—Usual Price, 11/-.

Our Special Sale Price, 6/6. "Mastavox" Crystal Sets, complete with aerial equipment. Superior Phones. Arrestor, Lead-in Tube. Guaranteed range, 25 miles.—

Our Special Sale Price, 19/6.

Accumulators.—"Willard" 4-volt, 40 amp. in heavy case, with carrying handle. Guaranteed quality. Usual Price, 75/-.

Our Special Sale Price, 50/-.

"Utah" Cone Speakers, the latest type Magnetic cone. Attractive appearance and fully protected from damage in hardest use or rough handling. Exceptionally clear and good tone.—Usual Price, £24/10/-.

Our Special Sale Price, 62/6. "Storad" "B" Accumulators, 96 v. Heavy duty (4500 m.a.). An exceptional opportunity for the battery set owner to obtain a long-life, heavy-duty rechargeable battery at less than the price of large size dry batteries.

A Special Bargain at £23/17/6. "Talking Book" Crystal Sets.—A unique and useful gift suitable for any boy or girl. Will give results equal to the best Crystal set and stand hard wear.—Only a few at Our Special Price, 3/6 each.

Variable Condensers, Wavemaster Minor. Usual Price, 6/6.

Special Sale Price 4/-.

Fixed Condensers, small sizes.—Usual Price, 1/6.

Special Sale Price 6d.

Terminals, plated.—Dozen. Usual Price, 3/-.

Special Sale Price 1/-.

Insulated Screw-eyes.—Dozen. Usual Price, 3/-.

Special Sale Price 1/6.

Bakelite Light Adaptors. Usual Price, 1/-.

Special Sale Price, 9d.

Crystals, Neutron and Mighty Atom. Usual Price 1/6.

Special Sale Price, 9d.

Phone Plugs. Usual Price 2/6.

Special Sale Price 6d.

Min. Plated Switches, double throw. Usual Price 1/-.

Special Sale Price, 4d.

Voltmeters, panel mounting, 0/100 volts. Usual Price 12/6.

Special Sale Price, 7/6.

Kester Solder.—Tin. Usual Price 1/6.

Special Sale Price 1/-.

Friction Tape.—Pkt. Usual Price, 9d.

Special Sale Price, 6d.

Contact Studs.—Dozen. Usual Price 1/6.

Special Sale Price 9d.

Charging Ammeters. Usual Price 9/6.

Special Sale Price 6/-.

Pocket Voltmeters. Usual Price 12/6.

Special Sale Price 8/6.

R.L. Varley Transformers. Usual Price, 21/-.

Special Sale Price 13/6.

B.T. Neutralising Condensers. Usual Price 6/-.

Special Sale Price, 4/-.

Battery Switches. Usual Price, 2/-.

Special Sale Price, 9d.

Pore. Tumbler Switches. Usual Price, 1/6.

Special Sale Price, 9d.

Hydrometers. Usual Price 3/6.

Special Sale Price, 2/3.

Condensers, 1 mfd. Usual Price, 3/-.

Special Sale Price 1/2.

Spade Terminals, screw type—doz. Usual Price, 3/-.

Special Sale Price, 1/-.

Electric Soldering Iron. Usual Price 17/6.

Special Sale Price, 9/6.

Honeycomb Coils.—From 8d.

Impedance Transformers.—

Special Sale Price 7/6.

National Browning-Drake BD-1 and BD-2 Units, complete. Usual Price £24/10/-.

Special Sale Price, 45/6.

Headphones.—Pair. Usual Price, 10/6.

Special Sale Price, 7/4.

Vernier Dials.—From 2/10.

Svan Neck Insulators. Usual Price 1/6.

Special Sale Price 11d.

Gobbin Insulators.—From 2d.

Yaxley Rheostats, 6, 10, 15, 20, 25, and 30 ohm. Usual Price 4/6.

Special Sale Price, 3/-.

Battery Cable, 5-wire—Per foot.—Usual Price 6d.

Special Sale Price 4d.

Children's Sessions

AT IYA.

TUESDAY, DECEMBER 24.—Christmas Eve, so listen-in and Uncle George will give some good advice about hanging up your stockings. Christmas Carols and part-songs to complete the hour.

WEDNESDAY.—Christmas here at last, and Children's Session beginning at 9 a.m. Nearly all the Uncles and Aunts will be present and guess who else? Why, Santa Claus! Listen for his sleigh-bells and then you will hear some of his experiences during the night in the chimney pots.

THURSDAY.—Peter Pan away on holiday, so Cinderella will entertain the Radio Family with the help of some favourite records.

FRIDAY.—Nod and Aunt Jean on deck with stories, songs, and jokes, and cousins with piano solos.

SATURDAY.—More stories from Cinderella—birthday greetings, and Radio Postman busy visiting the birthday folk.

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

AT 2YA.

MONDAY, DECEMBER 23.—Christmas is nearly here. Listen-in tonight and you will hear a Radio Punch and Judy Show. Cousin Ailsa will sing and Uncle Jeff will send Christmas greetings to little birthday folk.

TUESDAY.—Betty, Joyce, Marjorie, and Margaret are all coming this Christmas Eve with merry songs, poems, and Christmas chimes. There will be a little fairy play written by Cousin Dorothy. Uncle Jim, too, will be here.

THURSDAY.—Nursery rhymes and

cheery greetings for Radioland to-night from Uncle George and Aunt Gwen.

FRIDAY.—A jolly little programme of music to-night from cousins, also Brother Jack and good old Robinson.

SATURDAY.—Cousin Roma, with some of her charming poems and songs. Greetings from Uncle Toby and Aunt Gwen.

SUNDAY.—The Children's Song Service will be conducted by Uncle George assisted by the Vivian Street Church of Christ Sunday School.

AT 3YA.

MONDAY, DECEMBER 23.—Christmas drawing near—so listen-in to-night while "Scatterjoy" scatters good cheer and good-will abroad, with little dialogues and music to entertain you all.

TUESDAY.—Christmas Eve. A real live Christmas Eve, with all the Uncles and Aunts—songs, choruses and Christmas conundrums, opening parcels, and fun for all.

WEDNESDAY.—Christmas Day—9 a.m. A Merry Christmas to all. Little stories and carols for the children.

THURSDAY.—Boxing Day. Do you know all about Boxing Day?—No. Well, listen-in to-night and you will hear. Uncle John will tell you all sorts of interesting things.

FRIDAY.—Storyman will entertain. Recitations and songs by cousins Pat and Olive.

SATURDAY.—Peterkin with his stories of adventure and romance; and Aunt Pat helping with songs and music.

SUNDAY.—Children's Song Service, conducted by the Anglican Sunday School.

A Famous Scientist

DURING a recent broadcast talk by

Sir Oliver Lodge from the London station on the early days of electric lighting he mentioned an incident of an attendant who, during an early experiment, hurried forward with a lighted taper to re-ignite an electric lamp which had gone out. During at least one period in the development of a special type of electric lamp—the

Nernst lamp—it was, however, really necessary to employ the flame of a taper or match for the initial ignition of each lamp. This difficulty was due to the fact that the special filament material employed was a non-conductor when cold. The trouble was subsequently overcome by the provision of an electrically-heated coil, which was automatically cut out of circuit when the filament was heated. It then glowed with the intense brilliancy which characterised that type of lamp.

Make This a RADIO Christmas

STEINITE ALL-ELECTRIC RADIO CONSOLE.

Model No. 40.

Easy Terms Arranged.

PHILIPS Q.P. PLUG-IN ELECTRIC

£19/10/-

Complete with Speaker.

Arrange for a demonstration FREE in your own home.

G. G. MACQUARRIE, LTD.

Electrical and Radio Dealers,

120 WILLIS STREET,

WELLINGTON

SUPERADIO LTD.

HERALD BUILDINGS, QUEEN STREET

AUCKLAND.

Our Mail-Bag

Sunday Dinner Music.

SPEAKING as a comparatively new listener, I think that with only one exception our stations in New Zealand put forth splendid programmes. The exception I refer to is the silent time on Sundays between 4.30 and 6 p.m. On Sundays I maintain that dinner or "tea" music is more valuable than during the week. I put forth the following suggestion for criticism:—Children's session, 5 till 5.45 p.m.; musical session, 5.45 till 6.45.—"Listener" (Wanganui).

Screen Grid Two.

WOULD you kindly inform L.H. (Christchurch) that the Screen Grid Detector Two is in May 1, 1929, issue of "Popular Radio and Aviation" and if he is unable to obtain a copy I have a copy which he can have if he writes and tells me where to send it.—G. Patchett (264 Rintoul Street, Wellington).

Distortion from Dunedin.

I WOULD like to report that reception from 4YA since the installation of the new transmitting plant has not remedied the distortion that formerly existed. It is still as bad as ever. Reception from Dunedin has always been splendid here until about 5 p.m. After that the station is not worth tuning in. For instance, should a speaker be giving an address, some words of it will come through splendidly, and then distortion will momentarily occur, rendering the speech unintelligible. I have a seven-valve all-electric factory-built set, and as other stations come through quite clearly I am sure my set is not at fault.

I have inquired from other owners of local wireless sets here, and they give the same report. I was speaking to an owner of a similar set to mine recently, and he remarked that he experienced exactly the same distortion. He tuned in 4YA while I was there, and the reception was most irritating. The Wellington station came through beautifully, however.—J. A. Moyle (Otago).

Mains Interference.

WITH reference to Mr. Martin's complaint about interference with radio reception by the main power lines to the south. This seems to be a bar to all worth-while radio reception in a strip several hundred yards wide along the line which runs through the greater part of Canterbury. From what I can gather, the lines carry 60,000 volts, and it does not seem possible to do anything to mitigate the trouble. Indeed, it is likely to become very much worse, as I believe it is intended to raise the load on the mains to 110,000 volts. A Victim, (Temuka).

Unsatisfactory Reception.

COULD nothing be done with regard to the reception from 4YA, as it is not what it is reputed to be. The reception is quite all right in the afternoon from 3 p.m. to about 6 p.m., but after that it is very mushy and distorted. I can receive the Australian stations far better than Dunedin, even though I am only about 100 miles from the latter station. The other YA stations are excellent, especially 2YA. It is a treat to listen to, and we would like to hear the Orchestra more often if it is possible. 4YA Dunedin is no

Morse Interference

Steps Should be Taken

NOW that broadcasting has reached its present level and has found its way into over 45,000 New Zealand homes, definite steps should be taken to prevent Morse interference. This is not always easy to locate, and no doubt the Post and Telegraph Department are doing their utmost to cope with the menace. Only recently we have received complaints about strong Morse interference. One Wellington listener writes:—"Two drawbacks to radio reception which I am sure influence the license total are the howling valve nuisance and amateur Morse transmitters. Nothing, I daresay, can influence the latter cause of disturbance, which is rapidly getting worse. When one waits for some time to receive the faint call of a distant station and a blast of Morse prevents its reception, it is annoying to say the least. Surely the howling valve at least can be eliminated. If every one who bought parts to construct a set had to sign for them then they could have the set tested if howling was noticed in the district. It is unbearable to have an excellent programme such as is now presented by all the YA stations spoilt by these fresh complications. The preceding nuisances are the cause of most of the dislike towards radio evinced to-day by many of the public.—B. G. Findlay (Wellington)."

On making inquiries we have found that Morse is particularly troublesome. It has interfered with our own reception, and on odd occasions we have checked up these transmissions, but most are, unfortunately, in a code that has not been deciphered. It has been suggested that it is ship transmission, but there is nothing to back up this argument. For the same reason, there is nothing to contradict it. We would suggest that in view of the widespread disturbance caused by this station, that the Department take special steps to locate this offender and prevent the transmissions during broadcast hours. Other Morse transmission has caused interference, but nothing can compare with the slow dashes and dots occasioned by this unwelcome interlude.

The howling valve nuisance is taking alarming proportions. It is almost impossible to listen even to Christchurch on a Wednesday night. We were listening in recently and one oscillator remained on 8YA with a continuous strong whistle for over an hour. This is more than sheer selfishness; it is an offence against the regulations, and the Department has power to make the culprit feel uneasy. By the means of loop antennae it is possible to track down a constant howler, and we suggest that the Department take steps in this direction. If a few offenders were to have their licenses cancelled and lose their receivers howling valves would be less annoying than they are at present.

better than it was before the new installation, and surely listeners in the far south are entitled to some consideration.—Interested Listener (Nightcaps).

THE D.X. CLUB

Views and News.

Identification Wanted

ON Friday, December 6, on about 242 metres (1240 k.c.), I heard two ships, one on morse and the other on speech. As I do not understand morse all I could get was some of the speech, which was as follows:—"Hullo, who are you? We are about 300 to 350 miles from you — sixty foot log in the middle of the ship —. Thanks for getting me through. I will tell him when he comes down —." The name Doris was mentioned. He then closed down like this:—"I won't come back again. Good-night." Then the call letters, either 3JNL or CJNL. Could any listener enlighten me as to their identity?—M.B.S. (Palmerston North).

Stations Identified

IN a recent issue I notice there is some discussion as to the identification of a station broadcasting on Armistice Day service on the evening of Sunday, November 10. I think the station the "Grid" is looking for would be 2ZF Palmerston, which is operating on 285 metres (1050 k.c.). I picked up this station on the night in question at about 8.30 and found they were broadcasting the records of the 1928 memorial service in the Royal Albert Hall, London. No doubt this was the station that "Grid" and "Grebe" have heard.—Ernest H. Carman (Feilding).

DX Topics

ON looking over the D.X. Club notes for November we noticed that someone was inquiring as to the identity of a station 2ZU Marton, which he heard on November 6 at approximately 10.30 p.m. We understand that there is no broadcasting station at Marton

and should imagine that the station heard was our own broadcasting station, 2ZQ Masterton, as we were transmitting at that time. Over the summer months we are transmitting one night only per week, viz., Wednesday, the hours being eight to ten p.m. The power is approximately seven watts only. Although we are using this low power only we have had exceptionally good reports from all over New Zealand, from Bluff to Kaitia.—N. R. Cunningham, Ltd. (Masterton).

I WISH to draw D.X. listeners' attention to the fact that the Southern Californian stations have changed their frequencies as from November 15, 1929. I expect some listeners have already heard some on their new frequencies. Station KGO is now increasing its power to 50,000 watts. Reception of American stations has fallen off lately. I noticed KGO transmitting on WLW's frequency on December 5 at 8.45 p.m. Has any other listener noticed this?—S. Ellis (Okato).

I NOTICE Mr. Sellens in last week's short-wave notes queries the identity of the London and New York 'phone stations. On December 11, and December 12, 1929, I heard these stations testing until about 8 p.m. New Zealand time, when the three were coming in at R9. While listening to the New York station on 49 metres, I heard the calls GBS and GBU mentioned, and I think the 30-metre station is GBS, and the 48-metre GBU. I did not hear the call of the New York station on 49 metres. I wonder if any other listener could oblige me with the call? J. V. McMinn (Wellington) reports hearing 3UZ, Melbourne, on 65 metres. I first logged this station on November 23, 1929, on about 69 metres, just above PMY, Java. At the conclusion of a test between VPP, Suva, and 2MB, Sydney, on December 3, I heard Suva sign off as VP1A. It appears that different calls are used for the different transmitters which they are testing.—A. D. Rogers (Wellington).

A New Use for Radio

MANY mysteries of bird migration which have puzzled scientists for years may at last be solved with the aid of radio. A beginning with this new method of investigation was made recently by an ornithologist in charge of a bird-banding station in East Prussia, Germany. After attaching numbered bands to the legs of a number

of storks, the investigator broadcast a request to European bird lovers for information regarding the birds. Soon reports started to come in from members of the radio audience. These showed that, five days after their release, the storks had been seen in the Carpathian mountains in Czechoslovakia. A couple of weeks later they were observed near Messina, in southwestern Greece, having flown about 1250 miles in that period.

YOU CAN'T BUY A BETTER VALVE THAN

Mullard
THE MASTER VALVE

Notes and Comments

A SPEAKER at the Wellington Radio Society's meeting refuted the allegation that the howling valve nuisance was mainly due to home-constructed sets. He alleged that some of the sets manufactured by some local professional builders were mainly responsible for the howling valve nuisance. An opposite view was taken by another speaker, who considered that by far the greater number of howling valve sets were home-constructed. Sales of component parts clearly indicated that there were a large number of beginners who had been making their own one, two, or three valve sets, and these people attempted to get more out of their sets in long-distance reception than was reasonable to expect.

AN old friend of long-distance listeners in New Zealand, KGO, Oakland, California, has sent in an application to the United States Government Radio Commission for permission to increase its power from 5000 to 50,000 watts. It seems quite probable that the permission sought will be granted, and in that event New Zealand listeners, far and wide, who operate multivalve sets should obtain splendid reception from this Californian "giant" next winter, up till about 8.30 o'clock, on three or four nights each week. KGO nowadays

links up by land-line with the largest network of national broadcasting schemes, and some superb programmes are available through that medium from Chicago and New York.

TIME and again "Switch" is implored by listeners to urge the broadcasting from 2YA, Wellington, of certain gramophone records which make a special appeal to these persons. Listeners should realise that the usual programmes are arranged weeks ahead, and it cannot be expected that the musical director can at a few minutes' notice find a particular record during the afternoon sessions; nor is it desirable that the published programmes for the evenings be deviated from. During the Christmas daily transmissions, however, listeners could telephone 2YA and ask for their favourite records to be put on the air on the following day. This would enable the musical director time to obtain the desired record if it were available.

"OPUS" (Hataitai) has sent a note to say that listeners should be given an opportunity of hearing the latest complete grand opera issue of the Columbia people, "La Traviata," which he says transcends everything yet produced by them. He mentions that the cast includes a wonderful new Italian baritone, Galeffi, who must be heard to be believed. "Opus" states that this offering by Columbia is only just out.

Wellington Radio Society

Monthly Meeting

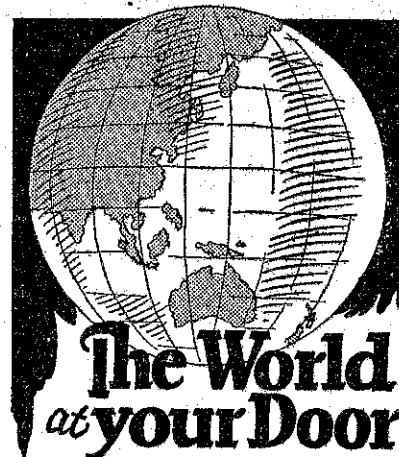
THE Amateur Radio Society of Wellington held their monthly meeting on Tuesday evening, December 10, in the Cambridge Terrace Congregational Church schoolroom. Mr. Byron Brown, president, who has recently returned from a visit to Sydney, occupied the chair. It was decided to notify the district radio inspector that severe interference with broadcast listening in the vicinity of Daniell Street still persisted. The interference was apparently due to an electrical leakage.

A member voiced the opinion that the "howling valve" nuisance was not due mainly to home-constructed sets, as had been stated at a previous meeting. He thought that some of the sets built by the local "trade" were serious offenders. He urged that too much publicity had been given to long-distance reception, thus encouraging owners of inferior sets to cause their valves to oscillate in an endeavour to pick up distant stations. He preferred the exponential type of loudspeaker to the electro-dynamic.

It was pointed out, however, that large numbers of novices had augmented the ranks of listeners, and they went in for small sets which they constructed themselves. This class of listener was a cause of a considerable amount of interference by trying to get greater distance than was to be expected with a small set. The judgment of tone of loudspeakers could not always be relied upon, and the fact remained that scientific instruments had proved the supremacy of the electro-dynamic over other types of loudspeakers.

Mr. D. Neill Keith, A.M.I.E., gave an interesting and instructive lecture on the early days of wireless. Mr. Keith was attached to the wireless staff of the Home Defences during the war, and was engaged in much experimental work at Biggin Hill, Kent. He traced the history of wireless development from the days when Clark Maxwell, in 1865, propounded the theory that if electric waves could be propelled through the air they would move at the same velocity as light. All the various stages of the progress of radio growth were detailed by Mr. Keith. He gave interesting accounts of experimentation in England with radio-phones between Defence aeroplanes and

the ground during the dark days of the war when German aeroplanes raided England. At the conclusion of the lecture, Mr. Keith displayed a rare collection of obsolete and present-day valves and radio components. He was accorded an enthusiastic vote of thanks and appreciation.



Know the thrills of easy, instantaneous programme selection on the new "Ultimate."

Short-wave or broadcast, near or far, this entirely new receiver brings the whole world to your door with the latest in song, dance and news.

And no other radio offers such a combination of outstanding advantages—All-Wave—All-Electric—Screen Grid.

Don't purchase a new receiver without fully investigating this new "Ultimate."

Send for Free Illustrated Literature—mail coupon TO-DAY.

The SCREEN GRID FOUR Ultimate
ALL WAVE — ALL ELECTRIC

It's all Electric

MESSRS. RADIO LTD.,
Anzac Avenue, Auckland.
Please send me free illustrated literature on the new "Ultimate" All-Wave All-Electric Screen-Grid Four. Name.....
Address

Harringtons for RADIO

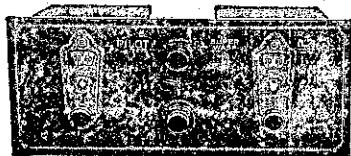
"KHABARVOSK!"

Siberia speaking!—Visions of the snow-swept steppes—and you sitting in your armchair by the fire with a—

"PILOT" A-C Super Wasp

SHORT-WAVE RECEIVER.

on the table.



In this fine A-C Receiver the short-wave set has graduated into a modern instrument possessing numerous refinements that have been built into regular broadcast sets.

The "Pilot" A-C "Super Wasp" has a universal wavelength range—Tunes from 14 to 500 metres—bringing the world of broadcasting into your home.

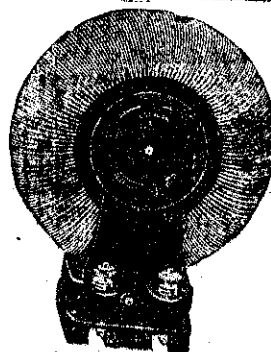
"SUPER WASP" for full A-C operation £24/15/-

(Complete kit of parts with powerpack extra).

"SUPER WASP" for Battery operation complete Kit of Parts. £14

Harringtons

40-42 WILLIS STREET :: :: WELLINGTON
138-140 QUEEN STREET, AUCKLAND (and throughout Australia).



DUBILIER
RADIO PRODUCTS

SHORT WAVE

22.5 to 45 M. Coil and Base 17/-
44 to 90 M. Coil and Base 17/-
H.F. Choke 5/6
Special Vernier Condenser 15/-
Ask for NEW PRICE LIST.

A. E. STRANGE
404 Worcester St., CHRISTCHURCH

MORSE work between aeroplanes and the ground is fast disappearing in Europe and America, and telephone communication is now gaining tremendously in popularity. Such wonders as telephone communication with ships at sea and with aircraft is already an established fact. Only a few days ago engineers of the Bell Laboratories established telephone communication between a plane at Whippany, N.J., and London. There can be little question that communication by wire will link every nation of the world before many years have passed.

THROUGH a recent amalgamation of the largest motor-car and radio manufacturing interests in the United States several makes of American motor-cars have been designed for radio installation, and thousands of installations have already been contracted for by automobile dealers in the States. This means that before long American motor-cars will be arriving in New Zealand with portable receiving sets and aërials built into them. There is not the slightest doubt that with the excellent broadcast service now supplied by the "YA" stations in this country, there is a decided demand for portable radio sets designed for motor-cars.

THE station director of 2YA, Wellington, merits special praise for his enterprise in securing the presence of the visiting English cricketers at the 2YA studio on Thursday evening, December 12. Thousands of listeners who are located far away from the cities, and who will have no opportunity of seeing the Englishmen play had, at least, the pleasure of hearing them speaking from 2YA. A loudspeaker outside a radio dealer's shop in Courtenay Place, Wellington, drew quite a crowd when the English cricketers were speaking. Some of the speeches were really excellent. The majority of our visitors, however, were microphone shy, and merely called greetings to New Zealand listeners.

ON the occasion of the English cricketers' visit to station 2YA, Wellington, they expressed astonishment at the size, furnishings and appointments of the studios, and no doubt these have to be seen to be believed. The main studio is like a small concert theatre. The Englishmen listened to several items and watched the methods adopted at the studios with the greatest interest. They were a happy lot and seemed to enjoy the occasion immensely. They all signed their names in the studio visitors' book, and then proceeded in motor-cars up to the transmitting station of 2YA on the heights of Mount Victoria. The various devices employed in transmitting were explained to them, and again they evidenced surprise at the wonderful equipment employed. They were able at the station to obtain an entrancing view of Wellington by night, and the panorama was one, they said, they would never forget.

THIS year the Broadcasting Company has again demonstrated their desire to do everything to stimulate the sale of radio sets during the Christmas gifts season, and thus add to the thousands of listeners already in New Zealand. By putting 2YA on the air from noon each day this week, excepting Saturdays and Sundays, and till after

New Year, the company is enabling the members of the trade abundant scope for giving demonstrations to prospective buyers and making this a thorough "Radio Christmas." Radio is a community affair, and the greater the number of listeners the greater the benefit to all associated with it, whether members of the trade or listeners themselves. Holidaymakers, whether "baching," motoring or yachting, will also appreciate the prolonged hours of broadcasting during the Christmas season.

THE other day "Switch" heard a listener, who is also a musical critic and a gramophone devotee, express the opinion that there are quite a few gramophone records landed in New Zealand which have been badly "taken." He said that for some reason or other they had faulty tone and other technical imperfections which were evident when heard direct from a gramophone. He advised careful weeding out of records before they were put on the air, otherwise the station's transmission would be unfairly blamed. The gentleman referred to is not a man to commit himself to such a statement without being sure of his ground, and his opinion was backed up by others of authority on gramophone reproduction.

VERY few Wellington listeners experience any interference from the powerful morse station on Tinakori Hill, overlooking the city, thanks to the excellence of the equipment and control of VLW by the P. and T. Department. In former days when VLW employed the old-fashioned spark transmission, it was a different matter, and no listener for many miles around was immune from the crackling morse which carried messages to ships hundreds, and even thousands of miles away at sea. All is changed now, and only those in the closest proximity to VLW know when it is on the air. In Sydney, on the other hand, there is a veritable demon to listeners in the shape of the navy morse station on Garden Island, in Sydney Harbour. This old-fashioned equipment is responsible for most annoying interference with broadcast listening.

ONE of the most interesting radio amateurs in New Zealand is Mr. D. Neill Keith, who lectured on the early days of wireless at the recent meeting of the Wellington Radio Society. Mr. Keith during the war was attached to the experimental staff of the Home Aviation Defences at Biggin Hill, Kent, England. He related how they were able to maintain a conversation with aeroplanes by radio-

phone at distances up to 50 miles. Mr. Keith related how they were able to save the life of an aviator who lost one of the wheels of his 'plane when leaving the ground. He was informed by 'phone of the mishap, and he effected a remarkably clever landing without accident.

MR. KEITH remarked that when the Inchcape Committee at Home set about reducing expenses incurred in conducting the war they decided to retrench in radio experimentation work. Mr. Keith was selected to interview committee and endeavour to dissuade them from this course. Owing to the general "hush" policy in the service the committee knew little of the wonderful progress made in radio. He invited the members of the committee to come and see his colleagues communicating by telephony with aeroplanes 50 miles away. The committee accepted the invitation, and when they saw a flight of 'planes going through manoeuvres in mid-air at the word of command from the ground they were completely won over, and there was no retrenchment.

IN the course of his lecture before the Wellington Radio Society Mr. Keith mentioned that here in New Zea-

land a Mr. G. T. Kemp, electrician in the P. and T. Department had successfully sent signals through the earth between Gisborne and Wairoa (a distance of 74 miles) two or three years before Marconi saw the commercial possibilities of radio communication. On February 26, 1894, Mr. W. W. Brown, manager of the Eastern Extension Cable Co., who was then staying at Cable Bay, Wakapuaka, in the Nelson district, wrote to Mr. Kemp for particulars of his experiments. Mr. Browning stated in his letter to Mr. Kemp that if reports of his experiments were true, his fortune was made. Mr. Browning, however, was shortly afterwards called away to England.

A SPEAKER at the Wellington Radio Society's recent meeting gave it as his opinion that none of the electro-dynamic speakers on the market could perform as well as his home-built exponential horn loudspeaker, which he operated with a pair of 15/- headphones for the reproducing medium. Another speaker, however, stated that it had been clearly demonstrated by graphs shown by Mr. C. Liddell at a previous meeting of the society that the exponential horn, while a distinct advance on the older type of horn, had its limitations, and was considerably inferior to the electro-dynamic or moving coil loudspeaker. The graphs had been recorded by scientific methods and were unassailable.

THE young folk have been delighted with the presence of Santa Claus at 2YA, Wellington, during the children sessions. Parents declare that the youngsters simply shriek with laughter at Father Christmas's humour. "Switch" has been assured that he has been the biggest "hit" of the year among the kiddies. The whole performance was cleverly done, and it indicates that there are some talented entertainers among us who can rise to the occasion when necessary with new ideas.

1929!

THE LATEST

All-Electric Neutrodyne

HAS MADE GOOD



FULL, but NATURAL always, is obtained by the combination of the New "APEX" A.C. Receiving Set with the "APEX" Magnetic Cone Speaker, which may be easily and effectively mounted on the lid, giving an IDEAL RADIO COMBINATION.

Retail Price £27

Write for our extremely attractive Double Offer.

BOND & BOND Ltd. N.Z. "APEX" AGENTS

Next Week's Features

1YA Features

THE special Christmas service from the Baptist Tabernacle will be relayed on Sunday evening, the choir giving extra music at the end of the service until 8.45 p.m. The Studio Trio will supply the major portion of the programme from the studio.

OWING to the holidays, 1YA will not observe their usual silent day on Monday. The evening programme is of a bright nature and includes Miss Lola Solomon (soprano), Mr. Frank Sutherland (bass-baritone), Mr. Dan Flood, the inimitable humorist, the versatile Snappy Three and Ingall's Hawaiians. Messrs. Bert Kingsland and Sid Lewis, two new performers, will be heard in instrumental duets. Both these artists are experts on various instruments, so their items should prove very interesting. A young elocutionist, Miss Moira Clouston, will again make an appearance.

TUESDAY, Christmas Eve, will see the return to the microphone of the Lyric Quartet, with Allan McElwain in several humorous numbers. That fine elocutionist, Mr. Joe Clark, will give two Dickens sketches, "Christmas Day, at Bob Cratchit's" and "The Conversion of Scrooge." The 1YA Instrumental Octet will provide orchestral items, including "Christmas Overture," by Coates. From 10.45 onwards the 1YA Broadcasting Choir will render Christmas music and carols.

ON Christmas Day, Santa Claus will speak to the children at 9 a.m. and at 11 a.m. the morning service of St. Mary's Cathedral will be relayed.

In the evening, at 7.30, a special Christmas musical service in St. Matthew's Church will be relayed. The preacher will be Canon Grant Cowan. A studio concert will follow. Contributing vocalists will be Mr. Sam Duncan and Mr. Hartley Warburton. Specially selected records appropriate to the occasion will be introduced.

THURSDAY, Boxing Day, will commence at approximately 11.45 a.m. and during the afternoon the results of the Auckland Racing Club's meeting will be broadcast. At the evening session the 1YA Instrumental Octet will provide the bulk of the programme. Messrs. J. and F. Roberts will play guitar duets and Mr. W. Shepley will contribute a cornet solo, "Good-bye Sweetheart, Good-bye." The vocalists will be Miss Reta McCullay

Club's meeting will be given, interspersed with music. In the evening the Auckland Comedy Players will present "The Escape" and "The Night Porter." Mr. Roy Dormer will sing a number of tenor solos, and Miss Ina Bosworth will play "Nocturne in B Flat Major" as a violin solo. The Studio Trio will give some more of their enjoyable numbers. Mr. Jock Lockhart, Scottish entertainer, of Christchurch, will be performing.



MISS EFFIE BRUCE
Is an elocutionist well-known in entertainment circles in Wellington. She has been very successful at various competition festivals.
—P. Andrew photo



MISS MYRTLE CHOTE
Is a young Wellington soprano who is also a good solo pianist. She has made several appearances before the microphone at 2YA.
—P. Andrew photo

(whose singing of Scottish songs is always so popular) and Mr. Stan Pritchard (baritone), while elocutionary items will be given by Mr. Tom Harris. Dance music will continue until 11 p.m.

ON Friday, commencing at 11.45 a.m., results of the Auckland Trotting

RACING results will again be given on Saturday afternoon, and in the evening session the vocalists will be Madame Mary Towsey, Miss Aimee Clapham and Mr. John Bree. Mr. Tom Garland will give another of his fire-side chats, and the orchestra will play some very fine numbers. Mr. Lockhart will again be contributing to the programme.

ON Monday evening a programme of outstanding merit will be presented, the vocalists on this occasion being Mrs. Walter Fuller (soprano), Miss Ngaire Coster (mezzo-contralto), Mr. Roy Hill (tenor), and Mr. S. E. Rodger (baritone). The elocutionary portion of the programme will be in the capable hands of Mr. Cedric Gardiner, one of Wellington's leading elocutionists. Items by the 2YA Orchestra, under Signor A. P. Truda, will comprise "The Cymbeline Overture," Korsakoff's "Capriccio Espagnole," a selection from "Le Cid Ballet Music," a selection of Brahms' "Gipsy Songs," and Finck's "Chopiniana." Another feature of the programme will be a brief organ recital by Mr. Henry Mount, the talented organist of St. Gerard's Redemptorist Church. Pergolesi's "Gloria in Excelsis" and the "Hallelujah Chorus" from Handel's "Messiah," will be Mr. Mount's items on this occasion.

THE programme for Christmas Eve (Tuesday) will be one that will be in keeping with the occasion. The 2YA Salon Orchestra, under Mr. M. T. Dixon, will play a programme of special Christmas music, the programme opening with Coleridge Taylor's "Christmas Overture." Other items will be Ellenberg's "Christmas Bells," Gounod's "Nazareth," Kettelby's "A Dream of Christmas," the selection, "Beneath the Holly," and the "Gloria," from Hadyn's "B Flat Mass." The assisting vocalists will be Miss Hilda Chudley, Mrs. R. S. Allwright, Messrs. Frank Bryant, W. W. Marshall, and R. S. Allwright. Mr. Jock Lockhart, Scottish humorist, will be heard for the first time on 2YA.

A feature of the programme will be a Christmas play, "The Stranger" (by du Garde Pench), played by Mr. Victor S. Lloyd and company. Details of the cast will be found in another column.

At the conclusion of the studio concert the Wellington Municipal Tramways Band will play a programme of Christmas carols until midnight, when the Midnight Mass will be relayed from St. Gerard's Redemptorist Church.

On Christmas Day the Rev. W. G. Carpenter will conduct a special Christmas studio service. Assisting Mr. Carpenter will be the Rev. E. D. Patchett and Brigadier Wall of the Salvation Army. Suitable musical numbers will be incorporated in the order of service. On the evening of Christmas Day there will be a special programme broadcast at 8 o'clock. The artists contributing will be Miss Nora Gray (soprano), Mr. Wm. Renshaw (tenor), Miss Nora Greene (contralto), and Mr. John Prouse (baritone). The vocal items by these artists will be interspersed with gramophone records suitable to the occasion.

THURSDAY is Boxing Day, and a special programme has been arranged accordingly. Allan's Dance Orchestra, the leading Wellington dance orchestra, has been engaged, and the supporting artists will be the Lyric Quartet, Mrs. Eileen Miller, and Mr. and Mrs. E. Ransom Myers. The Lyric

EBONITE TUBING RIBBED AND PLAIN

For all types of coils for all circuits. Various sizes—but only one quality—THE BEST.

HARD-RUBBER PANELS

Any size cut to order

Send for List

L. B. SCOTT Ltd.

Manchester and Worcester Sts.,
CHRISTCHURCH



LO-LOSS from 5/- per foot.

2YA Features

ON Sunday afternoon a relay from the De Luxe Theatre of a lecture on Christian Science will be carried out. The speaker will be the Hon. William E. Brown, C.S.B., member of the Board of Lectureship of the Mother Church, the First Church of Christ Scientist, Boston and Massachusetts, U.S.A. The service of the Taranaki Street Methodist Church will be relayed on Sunday evening. The preacher will be Rev. T. R. Richards, and the organist and choir-master, Mr. H. Temple White. The Wellington City Silver Band, under the conductorship of Mr. C. A. Forrest, will provide the programme for the concert session. The band will have associated with them the following artists: Miss Meanette Briggs (soprano), Mr. J. M. Caldwell (bass), and Mr. Chris. Edwards (tenor).

Quartet will be heard in solos and concerted numbers of a light nature, and Mrs. Eileen Miller will sing several popular songs, while Mr. and Mrs. Ransom Myers will feature humorous musical sketches.

ON Friday evening a programme of operatic and musical comedy items will be given. The vocalists will be members of the Philharmonic Quartet.

Two other outstanding items of interest on Friday evening will be the sketches to be given by Mr. and Mrs. J. William Bailey of Wanganni, who are about to leave that city preparatory to settling in Auckland, where they have decided to open a school of dramatic art. The items to be played by the 2YA Orchestra will be the overture to "Masaniello," a selection from the opera "Romeo and Juliet," two musical comedy selections, "Dorothy" and "My Cinderella Girl," and the "Dolores Waltz," by Waldteufel.

A BRIGHT vaudeville programme will be presented on Saturday evening. The Salon Orchestra, under Mr. M. T. Dixon, will play Thurban's "Americana Suite," a selection from "The Cabaret Girl," Lotter's "Southern Wedding," and several of the latest dance novelties. Vocal solos will be given by Miss Rosina Exton (soprano), Mr. Claude O'Hagan (baritone), Miss Agnes McDavitt (contralto), and Mr. Seon Brown (tenor). Mr. Albert Davey will contribute to the humorous portion of the programme, and Mrs. Mildred Kenny and Mr. M. Tonks will entertain with banjo duets.

3YA Features

ON Sunday afternoon at 2.45 there will be relayed from the Christchurch Hospital grounds a concert to be given by the massed bands and the Royal Christchurch Musical Society. At 7 o'clock the religious service conducted in St. Andrew's Presbyterian Church will be broadcast. A relay of the concert to be given by the St. Kilda Band in the St. Kilda band ronduna will follow.

AT 7.15 on Monday evening Mr. E. J. Bell will give his fortnightly "Book Review." The Woolston Band, in conjunction with 3YA artists, will provide Monday evening's programme, which will contain numerous items appropriate to Christmas. Selections by the band will include "Adeste Fideles," "The Hallelujah Chorus" and "Christians Awake." Bandsman R. Ohlson will play "The Lost Chord" as a cornet solo with band accompaniment.

The singers for the evening will be Miss Merle Parry, Miss Winifred Barrett, Mr. Sydney Armstrong and Mr. Robert W. Rofe. Elocutionary items by Mr. James Laurensen will be Geo. Robey's "Thingumabob" and a character sketch of "Scrooge." Instrumental selections will be played by the Studio Trio.

THE Christmas Eve programme will continue from 8 o'clock till 12, and will prove a splendid entertainment. The atmosphere of Christmas will pervade the whole programme and the last hour will be devoted mainly to carols. The Instrumental Octet, under Mr. Harold Beck, will provide appropriate selections. Miss Myra Pollard, Miss Nellie Lowe, Mr. W. J. Trewern, and Mr. W. J. Richards will be singing. Miss Lily Hughes will recite, one of her numbers being "Christmas Bells." From 10 till 11 there will be dance music. From 11 till 12 the vocalists will be the Salon Quartet singing solos and Christmas carols. They will also take part in a dramatic sketch produced by Mr. Lauri Cheval and introducing carols.

ON Wednesday, Christmas Day, at 9 a.m., there will be a session for the children, conducted by Aunt Pat. On the evening of Christmas Day, a service held in the Anglican Cathedral will be broadcast. This will be followed by a studio concert, to which Miss Anita Graham, Mrs. D. W. Stallard, and the Christchurch String Quartet will contribute.

THERE will be a holiday programme for Thursday, Boxing Day. This will be contributed by the Studio Octet, under Mr. Harold Beck, Miss Khura Hart-Stewart (mezzo-soprano), Miss Eileen Irwin (contralto), Mr. Harold Prescott (tenor), Mr. W. H. Inkster (bass) and the Joyous Pair (songs at the piano with ukulele).

A POPULAR concert programme with dance music will be broadcast on Friday evening. The vocalists will be Miss Betty Sutton (soprano), Miss Rita Lucas (mezzo-soprano), Mr. L. C. Quane (tenor) and Mr. A. Gladstone Brown. There will be recitations by Miss Winifred Smith. The dance music will be provided by the Bailey-Marston Dance Orchestra.

EVERY year during Christmas week, a carnival is held at Caroline Bay, Timaru. This year one of the evening concerts is to be broadcast by 3YA and 4YA. The date fixed is Saturday, December 28.

4YA Features

THE service in the Central Methodist Mission will be broadcast on Sunday evening. The Rev. G. B. Hinton will be the preacher. The relay of a concert to be given by the St. Kilda Band will follow.

AT 7.40 on Monday evening the Radio Man will give a lecturette on Wireless. Irish opera will be the motif of the programme on Monday. A specially engaged orchestra will perform on this occasion and all their items will be of Irish origin. The Harmonists Quartet will sing the principal vocal numbers of the Irish opera, "The Lily of Killarney," and the in-

cidental music is to be played by the orchestra. Two Irish numbers by Percy Grainger will be performed by Mrs. E. Drake, the studio pianiste, and Miss Anita Winkel will present two of Winifred Lett's Irish poems, Miss Mae Matheson will sing "The Last Rose of Summer." "Killarney" will be sung by Mr. H. Johnston, and Mr. P. M. Tuohy, the popular baritone, will sing "The Kerry Dance."

ARTISTS who will be new to some Dunedin listeners are contributing to a special Christmas Eve programme at 4YA. These are: Miss Veronica Mackenzie, Miss Mollie Fenton, and Mr. Wm. Yates, all from 2YA. The programme for the occasion contains specially selected items. Mr. Laurie North, the son of Dr. North, of this city, will sing Allitsen's "Psalm of Thanksgiving" and two Schubert numbers, "The Wanderer" and "To Music." Mr. North is the possessor of a remarkably fine baritone voice, and is a very popular artist in the city. The Studio Trio will perform bright numbers. A dance music session will follow the usual programme until 11.30 p.m., following which a gramophone recital of Christmas music will be presented.

AT 9 o'clock on Wednesday morning, Christmas Day, Big Brother Bill will conduct "Santa Claus Hour." At 10.30 the service in First Church, conducted by the Council of Christian Congregations, will be relayed. At 5.30 there will be a Christmas Carol session conducted by Big Brother Bill.

On the evening of Christmas Day an appropriate concert will be broadcast. This has been arranged by Mr. Ernest Drake. A vocal octet will sing "Adeste Fideles," "Silent Night," "Good King Wenceslas," and other Christmas songs, as well as miscellaneous items. The soloists will include Miss Aileen Young (soprano), Miss Mary Pratt (singing "Softly Awakes My Heart"), Mr. Les Dalley, whose tenor solo will be "The Star of Bethlehem," and Mr. F. Kershaw (bass solos, "Nazareth" and Verdi's "Il Lacerato Spirito"). Mr. Ernest Drake will sing a solo, and in association with Mr. Fred Tuohy, the duet, "Fickle Hearted Mimi." Instrumental items will be played by Miss Ethel Wallace (violin). There will be elocutionary numbers by Miss Anita Winkel.

A NEW combination consisting of professional musicians, the "Melody Four," will contribute the greater portion of the "Boxing Day" programme at 4YA. All the instrumentalists in this combination double on wood-wind and strings, so listeners can be assured of plenty of variety. Mr. Buster Brown will present further numbers of Scottish humour, and there will be recitations by Mr. Lester Moller. The vocalists for Friday evening's programme will be Miss Evelyn A. Shepherd, Mrs. Ritchie, Mr. G. Crawford, and Mr. Alan Breck. A miscellaneous programme will be presented. The instrumentalists will be a quartet, the members of which will also play solos.

ON Saturday evening the Caroline Bay (Timaru) Carnival will be relayed.

Have you secured your copy of

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

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

Now Available.

Surveying by Radio

An Ingenious Method

IN order to determine the exact position of a survey ship during hazy or foggy weather or when the ship is out of sight of land, the American Coastal Survey officials utilise a method called "Radio Acoustic Ranging." The purpose of the survey is to chart the coast lines at regular intervals out to a certain depth.

In using the radio method there are two shore stations set out by the ship about 35 miles apart. Each of these is equipped with a radio transmitter, receiver and a three-stage bomb audio amplifier. About a thousand yards off shore is a box containing three hydrophones. At a given signal a bomb is dropped overboard from the ship and the exact time and log reading are taken at that instant.

In the ship's radio cabin is a chronograph which records seconds with one pen and under-water sounds and radio signals with another pen. As the bomb explodes, the chronograph pen makes a dash on a tape. Seconds are recorded by another pen. After the bomb explodes, the ship operator informs the two stations by radio and they switch on their amplifiers in order to receive the sound impulse from the bomb. The amplifiers are used to step up the sound of the bomb received by the hydrophones to such a volume as to trip a relay and start an automatic key. The shore operator throws over a switch and three telegraphic dashes are sent back to the ship. Both shore stations must be turned to the same frequency, so that the ship's receiver can hear them without changing the dial setting.

These three radio dashes from each shore station are recorded on the chronograph tape and the exact time is noted. As sound travels under water with a speed of about 1477 metres per second, the distance to both stations is found and the exact position of the ship can be located on the chart.

**The Government
Tourist Dept's.
Booking System**
Considered by Experts
**The Best in the
World**

Offices in all Main Centres

FOR THROAT AND VOICE
Pulmonas
PASTILLES
ESPECIALLY VALUABLE
1/6 all chemists

Full Programmes for Next

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

Sunday, December 22

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

- 3.0 : Afternoon session—selected studio items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 6.0 : Children's session, conducted by Uncle Leo.
 6.55 : Relay of special Christmas service from the Baptist Tabernacle:—
 Preacher: Rev. Joseph Kemp. Organist: Mr. Arthur E. Wilson.
 (To be followed by short musical programme until 8.45 approx.)
 Studio concert:
 8.45 : Vocal quartet—Dora Labbette, Harold Williams, Hubert Eisdell, Dennis Noble, Robt. Easton and Halle Chorus and Orchestra—"The Apostles—By the Wayside" (Elgar) (Columbia 02593).
 Instrumental—Studio Trio, "Three Cuban Dances" (Cervantes).
 Tenor—Arthur Jordan, "Flower Song" ("Carmen") (Bizet).
 Pianoforte—Mr. Eric Waters, "Butterfly" (Coleridge-Taylor).
 Vocal duet—Dora Labbette and Norman Allin, "In Springtime" (New-ton) (Columbia 01101).
 Choral—St. George's Chapel Choir, "Magnificat in D Minor" (Walmisley) (Columbia 9174).
 Instrumental—Studio Trio, "Rondo—Trio Op. 35" (Hummel).
 Contralto—Eileen Boyd, "Husheen" (Needham) (Columbia 0773).
 London Symphony Orchestra, "Homage March" ("Sigurd Jorsalfar") (Grieg) (Columbia L1749).
 Close down.

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

- 3.0 : Chimes of the G.P.O. clock.
 3.1 : Relay from De Luxe Theatre of a lecture entitled "Christian Science—The Science of Spiritual Causation," by Hon. William E. Brown, C.S.B., Member of the Board of Lectureship of The Mother Church, The First Church of Christ, Scientist, in Boston, Massachusetts.
 5.30 : Children's song service, conducted by Uncle George.
 7.0 : Relay of service from Taranaki Street Methodist Church—Preacher: Rev. T. R. Richards. Organist and Choirmaster: Mr. H. Temple White.
 8.15 (approx.) : Studio concert by the Wellington City Silver Band, under the conductorship of Mr. C. A. Forrest, and assisting artists:
 Hymn—Band, "Abide With Me" (Monk).
 Selection—Band, "Echoes of Mendelssohn" (Greenwood).
 Soprano—Miss Jeanette Briggs, L.A.B., "Rejoice Greatly" ("Messiah") (Handel).
 Bass—Mr. J. M. Caldwell, "Hear Me Ye Winds and Waves" (Handel).
 Carols—Band, (a) "Christians Awake"; (b) "Hark the Herald Angels Sing"; (c) "Come All Ye Faithful" (trdtl.).
 Tenor—Mr. Chas. Edwards, "The Lord is my Light" (Allitsen).
 Cello with organ—W. H. Squire, (a) "Sarabande" (Sulzer); (b) "Ave Verum" (Mozart, arrgd. Squire) (Columbia 04283).
 Vocal duet—Miss Jeanette Briggs and Mr. J. M. Caldwell "Graceful Consort" ("The Creation") (Haydn).
 Euphonium solo with band accompaniment—Bandsman W. A. Baker, "The Village Blacksmith" (Round).
 Weather report.
 Overture—Vienna Philharmonic Orchestra, "Morning, Noon and Night" (Suppe) (H.M.V. C1667).
 Soprano—Miss Jeanette Briggs, L.A.B., "The Midshipman" (del Riego).
 Selection—Band, "Favourite Melodies" (Raymond).
 Bass—Mr. J. M. Caldwell, "To-morrow" (Keel).
 Vocal duet—Walter Glynn and Stuart Robertson, "The Moon Hath Raised Her Lamp Above" (Benedict) (H.M.V. B2979).
 Waltz—Band, "Druid's Prayer" (Dayson).
 Tenor—Mr. Chas. Edwards, "Inter Nos" (McFadyen).
 March—Band, "Preciosa" (Devereux).
 Close down.

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

- 2.45 : Relay from grounds of Christchurch Hospital of programme by the massed bands of Christchurch and the Royal Christchurch Musical Society.
 5.30 : Children's song service (children of the Presbyterian Sunday Schools).
 6.15 : Chimes from the Studio.
 6.30 : Studio concert:
 Instrumental—Paul Whiteman's Orchestra, "Silent Night, Holy Night."
 Instrumental—Paul Whiteman's Orchestra, "Christmas Melodies."
 Choral—Manchester Cathedral Choir, "The Crimson Sun Had Set" (Grantham, arrgd. Greatheed) (Columbia 02741).
 Organ solo—Dr. A. W. Wilson, "Chorale Prelude on the Old 104th Psalm" (Parry) (Columbia 02741).

Choral—Choir of St. George's Chapel, Windsor, "Thanksgiving Service" (on the occasion of the King's recovery): 1. National Anthem; 2. Psalm of Thanksgiving (Columbia 02936).
 Orchestral—Zurich Tonhalle Orchestra, "Concerto Grosso in D Minor" (Vivaldi) (Columbia 02932).

- 7.0 : Relay of service from St. Andrew's Presbyterian Church—Preacher: Rev. James Gibb, M.A., D.D. Musical Director: Mr. J. Maclean. Organist: Mr. Robert Lake.
 8.15 : Relay from Dunedin of concert by the St. Kilda Band, under the conductorship of Mr. James Dixon.
 Close down.

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

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 5.30 : Children's song service, conducted by Big Brother Bill.
 6.30 : Relay of service from Central Methodist Mission, the Octagon: Preacher: Rev. G. B. Hinton. Choirmaster: Mr. Mortley Peake. Organist: Mr. Chas. A. Martin.
 7.55 : Weather report.
 8.5 : Relay from Band Rotunda, St. Kilda, of concert by the St. Kilda Band, under the conductorship of Mr. James Dixon.
 9.15 : Close down.

Monday, December 23

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

- 3.0 : Afternoon session—Selected studio items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by Cinderella.
 6.0 : Dinner session—"Parlophone" Hour:
 Overture—Berlin State Opera Orchestra, "Mignon" (Thomas).
 Grand Symphony Orchestra, "Tales of Hoffman—Barcarolle" (Offenbach) (A4061).
 6.12 : Tacet.
 6.15 : Fantasia—Edith Lorand Orchestra, "Faust" (Gounod) (E10579).
 Pianoforte—Karol Szreter, "Fledermaus" (Strauss) (A4082).
 6.27 : Tacet.
 6.30 : Selection—Dajos Bela Orchestra, "La Tosca" (Verdi) (A4045).
 Violincello—Orabio de Castro, "Nocturne in E Flat" (Chopin).
 6.42 : Tacet.
 6.45 : Overture—Grand Symphony Orchestra, "Fras Diavolo" (Auber).
 Grand Symphony Orchestra, "Tales of Hoffman—Entr'acte and Minuet" (Offenbach) (A4061).
 6.57 : Tacet.
 7.0 : News session and market reports.
 8.0 : Chimes.
 8.1 : Selection—H.M. Coldstream Guards Band, "The Mikado" (Sullivan).
 8.7 : Bass-baritone—Mr. F. Sutherland, (a) "Sonny" (Crimp); (b) "At Santa Barbara" (Russell).
 8.14 : Hawaiian—Ingall's Hawaiians, (a) "Bright Moon" (Roberts); (b) "Pua Hula" (Traditional).
 8.22 : Humour—Mr. Dan Flood, "The Second Hand Belle of Seville" (Lester).
 8.26 : Soprano—Miss Lila Solomon, "Le Cid" (Massenet).
 8.30 : Vocal and instrumental—Snappy Three, (a) "Where is the Song of Songs?" (Berlin); (b) "Come West, Little Girl, Come West" (Donaldson).
 8.36 : Instrumental duo—Messrs. Kingsland and Sid Lewis, (a) "Serenade" (Titl); (b) "Somebody Else" (Etting).
 8.43 : Tenor—Sydney Soltham, "Indian Love Call" (Friml) (H.M.V. C1198).
 8.47 : Hawaiian—Ingall's Hawaiians, (a) "Drowsy Waters"; (b) "Static March" (Ingall).
 8.55 : Recital—Miss M. Clouston, (a) "The Confession" (Barham); (b) "The Cripple Boy" (Anon.).
 9.2 : Marek Weber's Orchestra, "Potpourri of Waltzes" (Robrecht).
 9.10 : Weather report.
 9.12 : H.M. Coldstream Guards Band, "Down South" (Myddleton).
 9.15 : Bass-baritone—Mr. F. Sutherland, "The Bachelors of Heaven" (Day).
 9.19 : Humour—Mr. D. Flood, (a) "Originalities"; (b) "Curiosities at the Piano."
 9.26 : Vocal and instrumental—Snappy Three, (a) "When My Dreams Come True" (Berlin); (b) "I Told Them All About You" (Friend); (c) "Jazz Medley" (piano solo—Miss Beryl Poulton).
 9.35 : Instrumental—The Troubadours, "Popular Songs of Yesterday."
 9.39 : Recital—Miss M. Clouston, (a) "Yossouf" (Lowell); (b) "In the Usual Way" (Anon.).

Week-all Stations-to Dec. 29

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

- 9.46: Instrumental duo—Messrs. Kingsland and Lewis, (a) "Golden Sunset" Reverie (Finder); (b) "Smiles and Chuckles" (Klieman).
 9.58: Soprano—Miss Lola Soloman, (a) "St. Nicholas Day in the Morning" (Massenet); (b) "Spreading the News" (Oliver).
 9.59: Hawaiian—Ingall's Hawaiians, (a) "Isle of Paradise"; (b) "Souvenirs" (Nicholls).
 10.7: Close down.

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

- 12.0: Chimes of the G.P.O. clock.
 12.1: Selected gramophone items.
 4.30: Sports results to hand.
 5.0: Children's session, conducted by Uncle Jeff.
 6.0: Dinner Session—"His Master's Voice" Hour:
 Royal Albert Hall Orchestra—"Carmen—Prelude Act 1" (Bizet).
 National Symphony Orchestra, "Sylvia Ballet—Cortege de Bacchus" (Debussy) (EB24).
 Organ—Reginald Goos-Custard, "The Question" (Wolstenholme).
 6.12: Tacet.
 6.15: Selection—Marek Weber's Orchestra, "La Tosca" (Puccini) (C1413).
 National Symphony Orchestra, "La Traviata—Prelude" (Verdi).
 6.27: Tacet.
 6.30: National Symphony Orchestra, "Bohemian Girl" selection (Balfe).
 Royal Albert Hall Orchestra, "Carmen—Prelude Act 2" (Bizet).
 Organ—Reginald Goos-Custard, "The Answer" (Wolstenholme).
 6.42: Tacet.
 6.45: Selection—National Symphony Orchestra, "Aida" (Verdi).
 Selection—H.M. Coldstream Guards Band, "H.M.S. Pinafore" (Sullivan) (C1288).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. W. J. Fergie, Publicity Branch N.Z. Railways, "Excursions by Rail."
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture—2YA Orchestra under the conductorship of Signor A. P. Truda—"Cymbeline" (Gruenwald).
 8.9: Soprano—Mrs. Walter Fuller, "Le Nil" (Leroux).
 8.13: Pianoforte—Miss Muriel Spark, (a) "Ritournelle" (Chaminade); (b) "Callirhoe" (Chaminade).
 8.20: Baritone—Mr. S. E. Rodger, "The Devout Lover" (White).
 8.24: Selection—2YA Orchestra, "Capriccio Espagnole" (Rimsky-Korsakov).
 8.34: Mezzo-contralto—Miss Ngaire Coster, "The Seagull of the Land Under Waves" (Hebridean folk song, arrgd. Kennedy Fraser).
 8.38: Recital—Mr. Cedric Gardiner, "The Three Friends" (Gordon).
 8.45: Tenor—Mr. W. Roy Hill, "An Eriskay Love Lilt" (Hebridean folk song, arrgd. Kennedy Fraser).
 8.49: Ballet music—2YA Orchestra, "Le Cid" ballet music" (Massenet).
 Selection—2YA Orchestra, "Berceuse" (Sibelius).
 8.59: Weather report.
 9.1: Relay of organ recital by Mr. Henry Mount—(a) "Gloria in Excelsis" (Pergolesi); (b) "Hallelujah Chorus" ("Messiah") (Handel).
 9.13: Soprano—Mrs. Walter Fuller, (a) "If Love Were All" (Landon Ronald).
 9.19: Baritone—Mr. S. E. Rodger, (a) "My Dreams" (Tosti); (b) "Fleur-ette" (McGeogh).
 9.26: Selection—2YA Orchestra, "Gypsy Songs" (Brahms).
 9.34: Vocal duet—Miss Ngaire Coster and Mr. W. Roy Hill, "Home to Our Mountains" ("Il Trovatore") (Verdi).
 9.38: Humour—Mr. Cedric Gardiner, "Desert Love" (Anon).
 9.45: Cello—W. H. Squire, "Madrigale" (Simonetti-Squire).
 9.48: Tenor—Mr. W. Roy Hill, (a) "Afton Water" (trdtl.); (b) "My Love She's But a Lassie Yet" (trdtl.).
 9.55: Mezzo-contralto—Miss Ngaire Coster, "Che Faro" ("Orfeo") (Gluck).
 9.59: Selection—2YA Orchestra, "Chopiniana" (arrgd. Finck).
 10.7: Close down.

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

- 3.0: Afternoon session—Selected studio items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by "Scatterjoy."
 6.0: Dinner session—"His Master's Voice" Hour:
 Reginald King's Orchestra, (a) "Garden in the Rain" (Gibbons); (b) "The Song I Love" (de Sylva) (B2903).
 Waltz—International Concert Orchestra, "Gold and Silver" (Lehar) (Zonophone EF22).
 Victor Olof Sextet, "Cherry Ripe" (Scott) (V2697).
 6.12: Tacet.
 6.15: Waltz—International Concert Orchestra, "The Spanish Dancer" (Di Chiara) (Zonophone EF15).

- Victor Concert Orchestra, "Romance" (Tchaikowsky) (Zono. EF7).
 Violin—Isolde Menges, "Salut d'Amour" (Elgar) (D1313).
 6.26: Tacet.
 6.30: Piccadilly Orchestra, (a) "Friend o' Mine" (Sanderson); (b) "None but the Weary Heart" (Tchaikowsky) (B2857).
 Orchestra and grand organ—International Concert Orchestra, "My Treasure" (Beucel) (Zonophone EF15).
 Victor Olof Sextet, "Minuet" (Boccherini) (B2697).
 6.42: Tacet.
 6.45: Jack Hylton's Orchestra, "Melodious Memories" (Finck) (C1575).
 Waltz—International Novelty Orchestra, "Emperor" (Strauss).
 6.57: Tacet.
 7.0: News session.
 7.15: Talk—Mr. E. J. Bell, "Book Review."
 8.0: Chimes.
 Studio concert by the Woolston Band, under the conductorship of Mr. R. J. Estall, and assisting artists.
 8.1: March—Band, "Torchlight."
 Carol—Band, "Adeste Fideles" (Traditional).
 8.10: Mezzo-soprano—Miss Winifred Barrett, (a) "One Alone" ("The Desert Song") (Romberg); (b) "Fisher Lad" (Craske Day).
 8.16: Instrumental—Christchurch Broadcasting Trio, "Trio, Op. 330, No. 1" (Carl Bohm).
 8.26: Baritone—Mr. Sydney Armstrong, "The Garden of Your Heart" (Dorel).
 8.30: Selection—Band, "Parsifal" (Wagner).
 8.43: Humorous recital—Mr. James Laurenson, "Thingumabob" (Robey).
 8.47: Soprano—Miss Merle Parry, "Sing, Break into Song" (Mallinson).
 8.51: Cornet solo with band accompaniment—Bandsman R. Ohlson, "The Lost Chord" (Sullivan).
 8.56: Bass—Mr. Robert W. Rofe, (a) "The Star" (Rogers); (b) "Love's Old Sweet Song" (Molloy).
 9.2: Weather report.
 9.4: Mezzo-soprano—Miss Winifred Barrett, "I Did Not Know" (Trotter).
 9.8: Selection—Band, "Hallelujah Chorus" ("Messiah") (Handel).
 9.14: Baritone—Mr. Sydney Armstrong, (a) "The Songs I Sing to You" (Willeby); (b) "Friend o' Mine" (Sanderson).
 9.20: Christchurch Broadcasting Trio, (a) "Swedish Folk Song" (Svendsen); (b) "Mazurka" (Malling); (c) "Hungarian Dance No. 4" (Brahms).
 9.29: Recital—Mr. Jas. Laurenson, "Scrooge" (an arrangement from "Christmas Carol" by Dickens) (arrgd. Williams).
 9.35: Air and variations—Band, "Simeon" (arrgd. Rimmer).
 9.42: Soprano—Miss Merle Parry, (a) "Pale Moon" (Logan); (b) "The Answer" (Terry).
 9.48: Xylophone—Sam Herman, "Al Fresco" (Herbert) (Parlo. EE53).

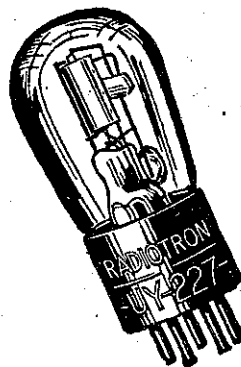
Charles Edison

President

THOMAS A. EDISON, Inc.

says:

"Before releasing them to our dealers we test the performance of Edison receiving sets with RCA Radiotrons. We do this because they do full justice to a product of which we are proud. So that purchasers may receive maximum satisfaction from our instruments we recommend to our dealers RCA Radiotrons for initial equipment and for replacement."



RCA RADIOTRON

MADE BY THE MAKERS OF THE RADIOLA

Amalgamated Wireless

(Australasia) Ltd.

BOX 830, WELLINGTON.

- 9.51: Bass—Mr. Robt. W. Rofe, "The Holy City" (Adams).
 9.55: Carol—Band, "Christians Awake" (Traditional).
 March—Band, "Flying Squadron" (Bosworth).
 10.2 : Close down.

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

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 4.25: Sports results to hand.
 5.0 : Children's session, conducted by Uncle Alla.
 6.0 : Dinner Session—"His Master's Voice" Hour:
 Suite—London Symphony Orchestra, "Czar Sultan Suite" No. 2 (Rimsky-Korsakov) (D1491).
 Waltz—International Concert Orchestra, "Waltz Dream" (Strauss).
 3.12: Tacet.
 6.15: Suite—New Light Symphony Orchestra, "Peer Gynt Suite" No. 2 (Grieg): 1. Ingrid's Lament; 2. Arabian Dance (C1571).
 New Light Symphony Orchestra, "Prelude in G Minor" (Rachmaninoff)
 6.27: Tacet.
 6.30: Suite—Peer Gynt Suite No. 2 (Grieg): Return of Peer Gynt; 2. Sol-veig's Song (C1572).
 New Light Symphony Orchestra, "Prelude in C Sharp Minor" (Rachmaninoff) (Zonophone EF24).
 6.42: Tacet.
 6.45: Philadelphia Symphony Orchestra, "Danse Orientale" (Glazounov).
 Waltz—International Concert Orchestra, "Sari" (Kalman).
 March—Philadelphia Symphony Orchestra, "March of the Caucasian Chief" (Ippolitoff-Iwanoff) (E521).
 6.57: Tacet.
 7.0 : News session.
 7.40: Lecturette by the "Radio Man" on "Wireless."
 8.0 : Town Hall chimes.
 8.1 : Special "Irish" programme by the 4YA Harmonists Quartet, assisted by the Celeste Orchestra:
 Overture—Celeste Orchestra, "Lily of Killarney" (Benedict).
 8.12: Presentation of the Irish opera, "The Lily of Killarney" (Benedict), by the Harmonists Quartet—Act 1.
 8.32: Instrumental—Celeste Orchestra, "Three Irish Dances" (Ansell).
 8.44: Continuation of the presentation of "The Lily of Killarney" (Benedict) by the Harmonists Quartet—Act 2.
 9.0 : Weather report.
 9.2 : Selection—Celeste Orchestra, "The Shamrock" (Myddleton).
 9.12: Conclusion of the presentation of "The Lily of Killarney" (Benedict) by the Harmonists Quartet—Act 3.
 9.24: Recitals—Miss Anita Winkel, (a) "In Service" (Letts) (b) "Little Peter Morrissey" (Letts).
 9.31: Pianoforte—Mrs. Ernest Drake, (a) "Handkerchief Dance" (Grainger); (b) "Irish Tune—From County Derry" (Grainger).
 9.39: Baritone—Mr. F. M. Tuohy, "The Kerry Dance" (Molloy).
 9.42: Instrumental—Celeste Orchestra, (a) "Irish Patrol" (Puerner); (b) "Mighty Lak a Rose" (Nevin).
 9.50: Soprano—Miss Mae Matheson, "The Last Rose of Summer" (Moore).
 9.53: Recital—Miss Anita Winkel, "Says She" (Letts).
 9.57: Irish Hornpipe—Flanagan Brothers "McGonagle Taste" (tradl.).
 10.0 : Tenor—Mr. H. Johnson, "Killarney" (Balfé).
 10.3 : Instrumental—Celeste Orchestra, "Overture to an Irish Comedy" (O'Connell).
 10.8 : Close down.

- 6.57: Tacet.
 7.0 : News and market reports.
 8.0 : Chimes.
 8.1 : Overture—1YA Orchestral Octet under the conductorship of Mr. Eric Waters, "Christmas Overture" (Coates).
 8.11: Vocal duo—Messrs. H. Richards and A. College, "The Battle Eve" (Newton).
 9.15: Recital—Mr. Joe Clark, "Christmas Day at Bob Cratchit's" (Dickens).
 8.21: Vocal quartet—Lyric Quartet, "Plantation" (Roher).
 8.25: Choir and Band—Christmas Choir and Band of H.M. Grenadier Guards "The Christmas Waits" (Columbia 9146).
 8.33: Humour—Mr. A. McElwain, Some Humour.
 8.38: Clarinet solo—Mr. J. McGregor, "Waltz Josephine" (Boyce).
 8.43: Tenor—Mr. A. Ripley, "Mavis" (Craxton).
 8.46: Instrumental—1YA Orchestral Octet (a) "Melodie Arabe" (Glazounov); (b) "Village Dance" (Burleigh).
 8.54: Bass—Mr. A. College, "A Soldier's Song" (Maxcheroni).
 8.58: Band of the Royal Guards, "Bells of St. Malo" (Rimmer).
 9.1 : Weather report.
 9.3 : 1YA Orchestral Octet, "Children's Suite" (Ansell).
 9.9 : Humour—Mr. A. McElwain, More Humour.
 9.13: Contralto with chorus—Dame Clara Butt, "The Old Folks at Home" (Foster) (Columbia 7315).
 9.17: Recital—Mr. J. Clark, "The Conversion of Scrooge" (Dickens).
 9.25: Vocal quartet—Lyric Quartet, "A Night of Love" (Richardson).
 9.29: Instrumental—1YA Orchestral Octet, (a) "Dornroschen" (Tschalkowsky); (b) "Strauss March" (Mezzacapo).
 9.45: "Brunswick" Dance Programme:
 Foxtrot—Hal Kemp's Orchestra, "You Wouldn't Fool Me, Would You?" (De Sylva) (4212).
 Foxtrot—Harold Stern's Orchestra, "From Sunrise to Sunset" (Miler).
 Foxtrot—Hal Kemp's Orchestra, "My Lucky Star" (De Sylva) (4212).
 Foxtrot—Arnold Johnson's Orchestra, "Tear Drops" (Davis) (4251).
 9.57: Comedienne with orchestra—Zelma O'Neal, "Button up Your Overcoat" (De Sylva) (4207).
 Foxtrot—Eight Radio Stars, "My Annapolis" (Weinberg) (4272).
 Foxtrot—Ray Miller's Orchestra, "Hittin' the Ceiling" (Gottler).
 Waltz—Ray Miller's Orchestra, "My Angeline" (Wayne) (4233).
 10.12: Old-time orchestra, Al Hopkins Buckle Busters, "Polka Medley" (Lind).
 Foxtrot—Red Nicholls and his Five Pennies, "On the Alamo" (Kahn).
 Foxtrot—Ray Miller's Orchestra, "Cradle of Love" (Wayne) (4233).
 Foxtrot—Hotel Ten Eyck Whispering Orchestra, "Then we Canoe-dle-oodle" (Woods) (4372).
 Foxtrot—Al Goodman's Orchestra, "I'm Still Caring" (Vallee) (4362).
 10.27: Vocal solo—Frank Luther, "Peg-leg Jack" (Robison) (4371).
 Foxtrot—Hotel Ten Eyck Whispering Orchestra, "Jericho" (Robin).
 Foxtrot—Al Goodman's Orchestra, "I'm Just a Vagabond Lover" (Vallee) (4362).
 Waltz—Regent Club Orchestra, "Sleepy Valley"—(Sterling) (4370).
 Foxtrot—Colonial Club Orchestra, "Sing a Little Love Song" (Gottler).
 Foxtrot—Roy Ingraham's Orchestra, "That's Living" (Ryan) (4366).
 Foxtrot—Colonial Club Orchestra, "There's a Four Leaf Clover in my Pocket" (Colwell) (4247).
 10.48: Vocal solo—Frank Luther, "Barnacle Bill, the Sailor" (Robison).
 Foxtrot—Six Jumping Jacks, "Oh, Baby, What a Night" (Brown).
 Waltz—Regent Club Orchestra, "My Dear" (Kahn) (4370).
 Waltz—Castlewood Marimba Band, "Wonderful You" (Meskill).
 11.0 : Christmas music and carols by the 1YA Broadcasting Choir.
 12.0 : Chimes.
 Close down.

Tuesday, December 24

1YA, AUCKLAND (900 KILOCYCLES)—TUESDAY, DECEMBER 24

- 12.0 : Selected studio items.
 Literary selection by the Announcer.
 Further studio items.
 4.25: Sports results to hand.
 5.0 : Children's session, conducted by Uncle George.
 6.0 : Dinner Session—"His Master's Voice" Hour:
 Royal Opera Orchestra, "Praeludium" (Jarnefeldt) (B2618).
 Cello—Pablo Casals, "Melody in F" (Rubinstein) (DA833).
 Waltz—Royal Opera Orchestra, "Eugén Onegin" (Tschalkowsky).
 Balalaika Orchestra, "Shining Moon" (Russian Folk Song), (EA48).
 6.12: Tacet.
 6.15: Suite—Paul Whiteman's Orchestra, "Suite of Serenades" (Herbert):
 1. Spanish; 2. Chinese; 3. Cuban; 4. Oriental (EB26).
 Waltz—Philadelphia Symphony Orchestra, "Tales from the Vienna Woods" (Strauss) (ED2).
 6.27: Tacet.
 6.30: Royal Opera Orchestra, "Berceuse" (Jarnefeldt) (B2618).
 Cello—Pablo Casals, "Traumerel" (Schumann) (DA833).
 Male Quartet—The Rounders, "Chlo-E" (Kahn) (EA402).
 San Francisco Symphony Orchestra, (a) "Serenade" (Volkman); (b) "Flight of the Bumble Bee" (Rimsky-Korsakov) (ED9).
 6.42: Tacet.
 6.45: Chicago Symphony Orchestra, (a) "Valse Triste" (Sibelius); (b) "Funeral March of the Marionette" (Gounod) (ED5).
 March—San Francisco Symphony Orchestra, "Marche Militaire" (Schubert) (ED9).

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

- 12.0 noon: Chimes of the G.P.O. clock.
 12.1 : Selected gramophone items.
 4.30: Sports results to hand.
 5.0 : Children's session conducted by Uncle Jim.
 6.0 : Dinner session—"Columbia" Hour:
 Waltz—Symphony Orchestra, "Artists' Life" (Strauss) (02577).
 Columbia Symphony Orchestra, "Al Fresco" (Herbert) (01092).
 Foxtrot—La Nuova Orchestra, "Di Napoli" (Romani) (3066).
 Band of H.M. Grenadier Guards, "La Paloma" (Yradier) (0987).
 6.13: Tacet.
 6.15: Ketelbey's Concert Orchestra, "In a Monastery Garden" (Ketelbey).
 Waltz—Jacque Jacobs Ensemble, "Over the Waves" (Rosas) (02556).
 6.27: Tacet.
 6.30: Columbia Symphony Orchestra, "Badinage" (Herbert) (01092).
 Waltz—Royal Serbian Tambouritzza Orchestra, "Kosovo" (3066).
 Waltz—Symphony Orchestra, "Tales from the Vienna Woods" (Strauss).
 March—H.M. Grenadier Guards Band, "Twist and Twirl" (Kottann).
 6.43: Tacet.
 6.45: Waltz—Royal Philharmonic Orchestra, "Blue Danube" (Strauss).
 Waltz—Jacque Jacobs Ensemble, "España" (Waldteufel) (02556).
 6.57: Tacet.
 7.0 : News session—Market reports and sports results.
 7.40: Lecturette—Representative of the Agricultural Department, "For the Man on the Land."
 8.0 : Chimes of the G.P.O. clock.
 Special Christmas Eve Programme:
 8.1 : Overture—2YA Salon Orchestra under the conductorship of Mr. M. T. Dixon, "Marche Pontificale" (Gounod).
 8.9 : Vocal duet—Messrs. F. Bryant and W. W. Marshall, "Drink to Me Only" (traditional).

- 8.13: Steel Guitar Duo—Messrs. Berthold and Bent, (a) "Coquette" (Berlin), (b) "Sleepy Eyes" (traditional).
 8.20: Irish humour—Mr. R. S. Allwright, "The Irish Orchestra" (Tovey).
 8.24: Instrumental—2YA Salon Orchestra, (a) "Christmas Bells" (Ellenberg), (b) "Nazareth" (Gounod).
 8.34: Contralto—Miss Hilda Chudley, "A Legend" (Tschalkowsky).
 8.38: Tenor—Mr. Frank Bryant, (a) "A Little Old Garden" (Lockton), (b) "A Perfect Day" (Jacobs Bond).
 8.45: Instrumental—Silver Stars Band, "Christmas Gems" Selection (arrgd. Partridge) (Regal G20310).
 8.48: Soprano with male voices—Mrs. R. S. Allwright and Melodie Male Voice Trio, "Kentucky Babs" (Giebel).
 8.52: Scottish humour—Mr. Jock Lockhart.
 8.58: Selection—2YA Salon Orchestra, "A Dream of Christmas" (Ketelbey).
 9.6: Weather report.
 9.8: Steel Guitar Duo—Messrs. Berthold and Bent, (a) "Broadway Melody" (Freed), (b) "You Were Meant for Me" (Brown).
 9.15: Bass—Mr. W. Marshall, "The Miner's Dream of Home" (Dryden).
 9.19: One-act Play, "The Stranger" (L. du Garde Peach): Cast—He, Victor S. Lloyd; She, Elsie Lloyd; The Stranger, E. K. Render. Time, Christmas Eve.
 9.30: Selection—2YA Salon Orchestra, "Beneath the Holly" (Seredy Tocaben).
 9.47: Scottish humour—Mr. Jock Lockhart.
 9.53: Carol with chimes and organ accompaniment—Shannon Male Quartet, "Hark, the Herald Angels Sing" (Mendelssohn) (Regal G20332).
 9.56: Contralto—Miss Hilda Chudley, (a) "Chinese Flowers" (Bowers), (b) "A Song of Rest" (Landon Ronald).
 10.2: Vocal duet—Mr. and Mrs. R. S. Allwright, "As I Went a-Roaming" (Brahe).
 10.6: Instrumental—2YA Salon Orchestra, "Gloria—B Flat Mass" (Haydn).
 10.12: A programme of Christmas carols by the Wellington Municipal Tramways Band under the conductorship of Mr. E. Franklin.
 11.50: Relay of Midnight Mass from St. Gerard's Redemptorist Church, Hawker Street, Wellington (Organist, Mr. H. Mount; Choirmaster, Mr. Frank J. Oakes):
 Organ—"Noel" (Gounod).
 11.55: Choir—"Adeste Fideles."
 Introitus—"Dominus Dixit Ad Me" (arrgd. Tozer).
 "Kyrie Eleison" (Gounod).
 "Gloria in Excelsis" (Van Bree).
 Graduale—"Tecum Principium" (arrgd. Tozer).
 Sermon—Rev. Father T. O'Connor, C.S.S.R.
 "Credo" (Van Bree).
 Offertoire—"Letentur Coeli" (arrgd. Tozer).
 Motet—"Noel" (Adams).
 "Sanctus" (Gounod).
 "Benedictus" (Gounod).
 "Agnus Dei" (Gounod).
 Communion—"In Splendoribus Sanctorum" (arrgd. Tozer).
 Organ—"Finale" (Buchler).
 Close down.

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

- 3.0: Afternoon session—Selected studio items.
 4.25: Sports results to hand.
 5.0: Children's session—"Uncles and Aunts."
 6.0: Dinner session—"Columbia" Hour:
 Selection—Court Symphony Orchestra, "The Windmill Man" (02909).
 J. H. Squire's Celeste Octet—"Scene de Ballet" (De Beriot, arrgd. Sear).
 Halle Orchestra—"Hungarian Dance No. 5 in G Minor" (Brahms).
 6.13: Tacet.
 6.15: Plaza Theatre Orchestra, "The Three Bears" Fantasy (Coates).
 J. H. Squire's Celeste Octet, "A Vision of Christmastide" (Harrison).
 6.27: Tacet.
 6.30: Regimental Band of H.M. Grenadier Guards, "La Benediction des Poignards" (Meyerbeer) (02931).
 Bournemouth Municipal Orchestra, "Echoes of the Valley" (Gennin).
 J. H. Squire's Celeste Octet, "Second Movement—Symphonie Pathetique" (Tschalkowsky, arrgd. Robertson) (02937).
 Halle Orchestra, "Hungarian Dance No. 6 in D" (Brahms) (01677).
 6.43: Tacet.
 6.45: Bournemouth Municipal Orchestra, "The Merry Brothers" (Gennin).
 Regimental Band of H.M. Grenadier Guards, "Lo, Here the Gentle Lark" (Bishop, arrgd. Godfrey) (02931).
 Herman Finck's Orchestra, "Christmas Memories" (arrgd. Finck).
 6.59: Tacet.
 7.0: News session.
 8.0: Chimes.
 8.1: Overture—Studio Instrumental Octet under the conductorship of Mr. Harold Beck, "Ballet Piquant" (Parker): (1) Minuet, (2) Sleepy Dance, (3) Dance Piquant, (4) Dance of the Fairies.
 8.9: Mezzo-soprano—Miss Myra Pollard, "Rose Softly Blooming" (Spohr).
 8.13: Pianoforte—Miss Dorothy Davies, "Noel" (Balfour-Gardiner).
 8.16: Tenor—Mr. W. J. Trewern, "The Star of Bethlehem" (Adams).
 8.19: Instrumental—Studio Instrumental Octet, "Christmas Suite" (for strings and piano) (Hollander): (1) Christmas Eve, (2) Christmas Day.
 8.32: Contralto—Miss Nellie Lowe, "A Spirit Flower" (Tipton).
 8.36: Instrumental—Studio Instrumental Octet, "Florindo" (Burgmeier).
 8.40: Recital—Miss Lily Hughes, "Grin" (Robert Service).

- 8.45: Violin—Toscha Seidel, "The Deluge—Prelude" (Saint-Saens) (Col.).
 8.49: Bass—Mr. W. J. Richards, (a) "Light" (Scott), (b) "Mother o' Mine" (Tours).
 8.55: Organ—Quentin Maclean, "Merchant of Venice" Incidental Music (Rosse) (Columbia 02796).
 9.0: Weather report.
 9.2: Studio Instrumental Octet—"The Rebel Maid" Dances (Montague Phillips).
 9.12: Mezzo-soprano—Miss Myra Pollard, (a) "A Legend" (Tschalkowsky), (b) "Lullaby" (Scott).
 9.18: Saxophone—Andy Sanella, "Jack and Jill" (Sanella) (Columbia 01186).
 9.22: Tenor—Mr. W. J. Trewern, (a) "Cycle of Life—Prelude" (Landon Ronald), (b) "Spirit So Fair" (Donizetti).
 9.29: Studio Instrumental Octet, "Bal de Noces" (Burgmeier).
 9.35: Contralto—Miss Nellie Lowe, (a) "Still as the Night" (Bohm), (b) "O Lovely Night" (Landon Ronald).
 9.42: Violin—Toscha Seidel, "Chanson Arabe" (Rimsky-Korsakov) (Col.).
 9.48: Recital—Miss Lily Hughes, "Christmas Bells" (Leslie Harris).
 9.53: Bass—Mr. W. J. Richards, "Hosanna in Excelsis" (St. Quentin).
 9.57: Organ—Quentin Maclean, "Merchant of Venice" Incidental Music (Rosse): (1) Intermezzo, (2) Oriental March (Columbia 02796).
 10.0: "His Master's Voice" Dance Programme:
 Foxtrot—Connecticut Yankees, "Where are you, Dream Girl?" (Davis).
 Foxtrot—Ted Weem's Orchestra, "Here We Are" (Warren) (EA602).
 Foxtrot—Connecticut Yankees, "Pretending" (Porter) (EA605).
 Foxtrot—Ted Weem's Orchestra, "Piccolo Pete" (Baxter) (EA602).
 10.12: Vocal duet—Gladys Rice and Franklyn Baur, "You're the Cream in My Coffee" (de Sylva) (EA616).
 Foxtrot—Gus Arnheim's Orchestra, "Now I'm in Love" (Shapiro).
 Foxtrot—Jack Hylton's Orchestra, "Ever So Goosey" (Butler) (EA578).
 Foxtrot—Ted Weem's Orchestra, "Am I a Passing Fancy?" (Silver).
 Waltz—Connecticut Yankees, "Underneath the Russian Moon" (Kendis).
 Waltz—Hilo Hawaiian Orchestra, "Sparkling Waters of Waikiki" (Davis) (EA574).
 10.30: Tenor—Morton Downey, "The World is Yours and Mine" (Green).
 Foxtrot—Ted Weem's Orchestra, "What a Day!" (Woods) (EA606).
 Foxtrot—Connecticut Yankees, "The One that I Love Loves Me" (Turk).
 Foxtrot—Coon Sanders' Orchestra, "The Flippity Flop" (Coslow).
 Foxtrot—Jack Hylton's Orchestra, "The Toymaker's Dream" (Golden).
 10.45: Vocal duet—Billy Murray and Walter Scanlon, "Oh, Baby, What a Night!" (Brown) (EA613).
 Foxtrot—Gus Arnheim's Orchestra, "This is Heaven" (Yellen) (EA583).
 Foxtrot—Gus Arnheim's Orchestra, "One Sweet Kiss" (Jolson).
 Foxtrot—Park Central Orchestra, "True Blue Lou" (Robin) (EA610).
 Waltz—Gus Arnheim's Orchestra, "Sleepy Valley" (Sterling) (EA583).
 11.0: Carols—Salon Quartet, (a) "The First Nowell," (b) "Over the Fields of Bethlehem" (Dicks).
 Contralto recitative and aria—Miss Dulcie Mitchell, (a) "Behold a Virgin," (b) "O Thou That Tellest Glad Tidings" ("Messiah"—Handel).
 11.11: Organ solo—Terence Casey, "Pleading" (Haydn Wood) (Col. 01633).
 11.14: Dramatic sketch introducing Christmas carols—Mr. Lauri Cheval and Salon Quartet, "While Shepherds Watch" (L. du Garde Peach):
 Cast—Sir George Norrie Wentworth, J.P., Anne (his wife), Burglar, Wilborough.
 11.26: Instrumental—Musical Art Quartet, "Deep River" (Negro Spiritual) (arrgd. Held) (Columbia 01625).
 11.29: Soprano and tenor duet—Miss Corrie Aslin and Mr. H. Blakeley, "Love Divine" ("Daughter of Jairus"—Stainer).
 Carol—Salon Quartet, "Christ Was Born on Christmas Day" (Lee Williams).
 11.37: Band—Royal Italian Band, "Garibaldi's Hymn" (Gabetti) (Col. 01182).
 11.40: Carols—Salon Quartet, (a) "God Rest Ye, Merry Gentlemen" (Goldsmith), (b) "Adeste Fideles" (Reading).
 11.48: Organ—Terence Casey, "Devotion" (Ketelbey) (01633).
 11.51: Carol—Salon Quartet, "Silent Night" (Dicks).
 11.55: Intermezzo—Band of H.M. Irish Guards, "Christmas Medley" (Aston) (Parlophone A2582).
 11.58: Carols—Salon Quartet, (a) "Christians, Awake" (traditional), (b) "Hark, the Herald Angels Sing" (Mendelssohn).
 Close down.

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

- 3.0: Town Hall chimes.
 3.1: Selected gramophone items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Uncle George.
 6.0: Dinner session—"Columbia" Hour:
 Orchestre Symphonique de Paris, "L'Arlesienne Suite" (Bizet): (1) Prelude, (2) Entr'acte—Pastorale, (3) Choeurs—Suivant la Pastorale (01824/5).
 6.12: Tacet.
 6.15: Selection—Columbia Symphony Orchestra, "Faust" (Gounod) (02708).
 Violin—Toscha Seidel, "Chanson Arabe" (Rimsky-Korsakov) (09505).
 6.27: Tacet.
 6.30: Orchestre Symphonique de Paris, "L'Arlesienne": (1) La Cuisine de Castelet, (2) Minuetto, (3) Le Carillon, (4) Adagietto (Bizet).
 6.42: Tacet.
 6.45: Orchestre Symphonique de Paris, "Farandole—L'Arlesienne" (Bizet).
 Band Garde Republicaine de France, "Carmen—Entr'acte" (Bizet).

- 6.50: Tacet.
 7.0: News session.
 8.0: Town Hall chimes.
 8.1: San Francisco Symphony Orchestra, "A Midsummer Night's Dream" (Mendelssohn) (H.M.V. D1627).
 8.13: Soprano—Miss Veronica McKenzie, "Coppelia Waltz Song" (Delibes).
 8.18: Instrumental—4YA Broadcasting Trio, (a) "La Cinquantaine" (Gabriel-Marie); (b) "Humoreske" (Dvorak); (c) "Hungarian Dance No. 5" (Brahms).
 8.27: Humorous recital—Mr. Wm. Yates, "Buying a Bot of Fish" (Middlemiss).
 8.33: Instrumental selection with vocal chorus—Jack Hylton's Orchestra, "Good Old Songs" (H.M.V. C1592).
 8.41: Contralto—Miss Mollie Fenton, (a) "O Lovely Night" (London Ronald); (b) "Achal by the Sea" (Lawrence).
 8.48: Cello—Mr. P. J. Palmer, "Chanson a la Lune" (Morrelli).
 8.54: Selection—National Military Band, "Ballet Egyptien" (Luigini).
 9.2: Weather report.
 9.3: Baritone—Mr. L. North, "A Psalm of Thanksgiving" (Allitsen).
 9.8: Instrumental—4YA Broadcasting Trio, "Vienna Life" (Strauss).
 9.17: Soprano—Miss Veronica McKenzie, "Il Bacio" (Arditi).
 9.21: Pianoforte—Mrs. C. Roy Spackman, "Romance" and "Waltz" (Sibelius).
 9.29: Humorous recital—Mr. Wm. Yates, "A Kiss in the Train" (Anon.).
 9.35: Instrumental—4YA Broadcasting Trio, (a) "The Wood Nymph" (Lind); (b) "Cradle Song" (Schubert).
 9.40: Contralto—Miss Mollie Fenton, Two Christmas Carols—(a) "The First Noel"; (b) "Sleep, Holy Babe" (Traditional).
 9.44: Cello—Mr. P. J. Palmer, "Alla Mazurka" (Glotman).
 9.49: Baritone—Mr. L. North, (a) "The Wanderer" (Schubert); (b) "To Music" (Schubert).
 9.56: Selection—H.M. Coldstream Guards Band, "Iolanthe" (Sullivan).
 10.0: "Columbia" Dance Programme:
 Foxtrot—Cotton Pickers, "He's a Good Man to Have Around" (Yellen).
 Foxtrot—Ray Miller's Orchestra, "Someone's Falling in Love" (Little).
 Foxtrot—Cotton Pickers, "Shoo Shoo, Boogy Boo" (Robin) (4447).
 Foxtrot—Ray Miller's Orchestra, "You Want Lovin'" (Spler) (4425).
 10.12: Vocal duet—The Inspiration Boys, "On the Alamo" (Kahn) (4436).
 Foxtrot—Gernovich's Roof Garden Orchestra, "There's Sugar Cane Around My Door" (Leonard) (4430).
 Foxtrot—Mount Royal Hotel Orchestra, "Fading the Long Way Home" (Kahn) (4406).
 Waltz—Regent Club Orchestra, "Mistakes" (Leslie) (4473).
 Waltz—Carter's Orchestra, "Three O'Clock in the Morning" (Terriss).
 10.27: Organ and xylophone—Lew White, "You Were Meant for Me" (Freed).
 Foxtrot—Mount Royal Hotel Orchestra, "The Land of Sleepy Water" (Higman) (4403).
 Foxtrot—Biltmore Hotel Orchestra, "That's What I Call Sweet Music" (Meskill) (4413).
 Foxtrot—Red Nicholls' Five Pennies, "Alice Blue Gown" (Tierney).
 Foxtrot—Biltmore Hotel Orchestra, "Now I'm in Love" (Yellen).
 10.42: Comedienne—June Pursell and Roy Fox, "I'm Walking Around in a Dream" (Lewis) (4412).
 Foxtrot—Arnold Johnson's Orchestra, "Don't Hang Your Dreams on a Rainbow" (Kahal) (4452).
 Foxtrot—Al Goodman's Orchestra, "O! What Have You?" (Henry).
 Foxtrot—Colonial Club Orchestra, "Song of the Moonbeams" (Tobias).
 Foxtrot—Al Goodman's Orchestra, "I've Made a Habit Out of You" (Dietz) (4383).
 Waltz—Regent Club Orchestra, "If We Never Should Meet Again" (Leslie) (4473).
 11.0: Organ with xylophone—Lew White, "Wedding of the Painted Doll" (Freed) (4416).
 Foxtrot—Oriole Orchestra, "An Old Italian Love Song" (Harrison).
 Foxtrot—Lyman's California Orchestra, "Ain't Misbehavin'" (Razaf).
 Foxtrot—Oriole Orchestra, "Why Did You?" (Lombardo) (4439).
 Foxtrot—Red Nicholls' Five Pennies, "A Pretty Girl is Like a Melody" (Berlin) (4456).
 11.15: Vocal duet—The Inspiration Boys, "The Moonlight March" (Newman).
 Foxtrot—Hotel Astor Orchestra, "Every Moon's a Honeymoon" (Wimbrow) (4410).
 Foxtrot—Lyman's California Orchestra, "Bashful Baby" (Friend).
 Foxtrot—Hotel Astor Orchestra, "An Eye-ful of You" (Gilbert) (4410).
 Waltz—Carter's Orchestra, "That Naughty Waltz" (Stanley) (4433).
 11.30: Gramophone recital of Christmas Music.
 12.0: Chimes.
 Close down.

- 8.45 (approx.): Studio concert:
 Overture—British Broadcasting Company's Wireless Symphony Orchestra, "Christmas Overture" (Coleridge-Taylor) (Columbia 9137).
 Baritone—Mr. Hartly Warburton, "I Am a Roamer" (Mendelssohn).
 Organ—W. G. Webber, "Fantasia of Old Songs" (arrgd. Webber) (Col.).
 Tenor—Mr. Sam Duncan, selected.
 Choral—Manchester Cathedral Choir, "The Crimmsun Sun Had Set" (Grantham, arrgd. Greathead) (Columbia 02741).
 Cornet—Harry O'Brien, "The Star of Bethlehem" (Adams) (Regal).
 Baritone—Mr. H. Warburton, (a) "Duna" (McGill), (b) "Roadways" (Densmore).
 J. H. Squire's Celeste Octet, "A Vision of Christmastide" (Harrison) (Columbia 01615).
 Tenor—Mr. S. Duncan, selected.
 Instrumental—Regimental Band of H.M. Grenadier Guards, "Christmas-time in Merrie England" (Bennett) (Columbia 3184).
 Close down.

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

- 10.0: Special Christmas Service from the Studio, conducted by Rev. W. G. Carpenter:
 Carols with bells and organ—St. Margaret's Westminster Choir, (a) "Hark the Herald Angels Sing" (Trdtl.); (b) "Oh, Come, All Ye Faithful" (Trdtl.) (H.M.V. B3126).
 Prayer—Rev. W. G. Carpenter.
 Scripture reading.
 Carol—St. Swinthin's Choir, "While Shepherds Watched their Flocks by Night" (Trdtl.) (H.M.V. B2159).
 Children's talk—Brigadier Walls of the Salvation Army.
 Carol—St. Swinthin's Choir, "Christians Awake" (Trdtl.) (H.M.V.).
 Address—Rev. E. D. Patchett, of Thorndon Methodist Church.
 Carol—St. Swinthin's Choir, "Good King Wenceslas" (Trdtl.) (H.M.V.).
 Benediction.
 Close down.
 8.0: Chimes of the Post Office Clock.
 8.1: Overture—Herman Finck's Orchestra, "Christmas Memories" (A dream phantasy) (arrgd. Herman Finck) (Columbia 02743).
 8.9: Soprano—Miss Nora Gray, "Cantique de Noel" (Adam).
 8.13: Orchestra—Paul Whiteman's Orchestra, "Silent Night, Holy Night."
 8.17: Chorus—B.B.C. Chorus, (a) "See Amid the Winter's Snow"; (b) "God From on High Hath Heard" (Columbia 01610); (c) "Once in David's Royal City" (Columbia 01611).
 8.26: Contralto—Miss Nora Greene, "St. Agnes' Eve" (Sullivan).
 8.30: Orchestra—Paul Whiteman's Orchestra, "Christmas Melodies" (Col.).
 8.34: Baritone—Mr. John Prouse, Recitative and Aria, "The People that Walked in Darkness," from "Messiah" (Handel).
 8.39: Instrumental—J. H. Squire's Celeste Octet, "A Vision of Christmas-tide" (Harrison) (Columbia 01615).
 8.45: Tenor—Mr. Wm. Renshaw, "Star of Bethlehem" (Adams).
 8.49: Carol with Descant—Exeter Cathedral Choir, "O Little Town of Bethlehem" (Columbia 01349).
 8.52: Orchestra with organ and chorus—Albert W. Ketelby's Orchestra, "A Dream of Christmas" (Ketelby) (Columbia 02091).
 9.0: Weather report and announcements.
 9.2: Soprano—Miss Nora Gray, "The Virgin's Slumber Song" (Reger).
 9.6: Organ—W. G. Webber, "Organ Fantasia of Old Songs" (arrgd. Webber).
 9.14: Contralto—Miss Nora Greene, (a) "My Prayer" (Squire); (b) "Love's Old Sweet Song" (Molloy).
 9.21: Cornet with organ, (a) "The Lost Chord" (Sullivan); (b) "The Holy City" (Stephen Adams) (Regal G1035).
 9.29: Baritone—Mr. John Prouse, "Nazareth" (Gounod).
 9.34: Band of H.M. Grenadier Guards, "Christmas Time in Merrie England".
 9.40: Carol with Descant—Exeter Cathedral Choir, "This Joyful Eastertide" (arrgd. Wood) (Columbia 01349).
 Choral—B.B.C. Chorus, "O God Our Help in Ages Past" (Watts) (Col.).
 9.46: Tenor—Mr. Wm. Renshaw, "Absent Yet Present" (White).
 9.50: Band and chorus—Band of H.M. Grenadier Guards, "Christmas Waits".
 10.0: Close down.

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

- 9.0: Children's Christmas morning session, conducted by Aunt Pat, assisted by 3YA Children's Session Advisory Committee.
 7.0: Relay of service from Christchurch Anglican Cathedral—Full Choral Evensong and Christmas Carols. Organist and musical director, Dr. J. C. Bradshaw.
 8.20: Studio concert.
 Overture—Philadelphia Symphony Orchestra, "Toccata and Fugue in D Minor" (Bach) (H.M.V. D1428).
 8.28: Mezzo-soprano—Miss Anita Graham, "When the Heart is Young" (Buck).
 8.36: Instrumental—Christchurch String Quartet, "Andantino—Doucement" (Third Movement) (Debussy).
 8.45: Contralto—Mrs. D. W. Stallard, "The Old Folks at Home" (Foster).
 8.49: Bass with chorus—Peter Dawson, "The Old Superb" (Stanford).
 8.53: Instrumental—Christchurch String Quartet, (a) "Album Blatt" (Tschalkowsky); (b) "Menuet" (Mozart).
 9.3: Mezzo-soprano—Miss Anita Graham, (a) "I Love a Little Cottage" (O'Hara); (b) "Happy Summer Song" (Kahn).

Wednesday, December 25

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

- 9 a.m.: Special Christmas Children's Session, conducted by "Santa Claus" and his friends.
 11.0: Relay of service from St. Mary's Cathedral (Preacher, Canon William Fancourt; Organist, Mr. Edgar Randall).
 12.30 (approx.): Close down.
 7.30 p.m.: Relay of special Christmas Musical Service from St. Matthew's Church (Preacher, Canon Grant Cowan; Organist, Mr. J. H. Phillipott).

- 9.11: Violin—Fritz Kreisler, (a) "La Vida Breve" (Spanish Dance) (Del Falla, arrgd. Kreisler); (b) "Tango" (Albeniz, arrgd. Kreisler).
 9.17: Contralto—Mrs. D. W. Stallard, (a) "The Old Countree" (Pinsuti); (b) "Home, Sweet Home" (Bishop).
 9.23: Instrumental—Christchurch String Quartet, "Allegro Con Brio" (Beethoven).
 9.30: Close down.

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

- 9.0: Children's "Santa Claus" Hour, conducted by Big Brother Bill.
 10.30: Relay from First Church of United Christmas Service by Council of Christian Congregations, presided over by Rev. Dr. Hunter, M.A. Scripture Sentences.
 Prayer.
 Hymn—"Christians Awake, Salute the Happy Morn" (Wainwright).
 Reading of Scripture, Isaiah ix., 1-7; Luke ix., 8-20: Rev. G. S. Tuckwell, B.A.
 Hymn—"Hark, the Herald Angels Sing" (arrgd. Cummings).
 Prayer—Rev. A. Mead, M.A.
 Hymn—"While Humble Shepherds Watched their Flocks" (Old Carol).
 Offertory (for Patients' and Prisoners' Aid Society).
 Sermon—Rev. G. B. Hinton.
 Hymn—"O Come all Ye Faithful" (Reading).
 Benediction.
 (Organist: Dr. Galway).
 5.30: Children's Carol Session, conducted by Big Brother Bill.
 8.0: Town Hall chimes.
 Special studio concert arranged and conducted by Mr. Ernest Drake:
 8.1: Selection—J. H. Squire Celeste Octet, "Memories of Mendelssohn" (arrgd. Sear) (Columbia 02838).
 8.9: Chorus—Vocal Octet, (a) "Adeste Fideles" (Oakley), (b) "Silent Night" (arrgd. Dick).
 8.18: Pianoforte solo—Mrs. Ernest Drake, "Noel" (Balfour Gardener).
 8.22: Contralto—Miss Mary Somerville, "A Legend" (Tschalkowsky).
 8.26: Carol—Vocal Octet, "Good King Wenceslas" (trdtl.).
 8.30: Bass—Mr. F. Kershaw, "Nazareth" (Gounod).
 8.35: Violin—Miss Ethel Wallace, "Romance in G" (Beethoven).
 8.40: Carols—Vocal Octet, (a) "The First Noel" (trdtl.); (b) "See Amid the Winter Snows" (Goss); (c) "Joy Fills Our Inmost Heart" (Dick).
 8.50: Recital—Miss Anita Winkel, "Christmas Bells" (Dickens).
 8.54: Tenor—Mr. L. Dalley, "Star of Bethlehem" (Adams).
 8.58: Selection—Herman Finck's Orchestra, "Schubertiana" (Schubert, arrgd. Finck) (Columbia 02721).
 9.6: Weather report.
 9.8: Bass—Mr. F. Kershaw, "Il Lacerato Spirito" (Verdi).
 9.12: Soprano—Miss Aileen Young, "Una Voce" (Verdi).
 9.17: Violin—Miss Ethel Wallace, "Hungarian Dance No. 2" (Brahms).
 9.21: Tenor—Mr. Ernest Drake, "Che Gelida Manina" (Puccini).
 9.25: Recital—Miss Anita Winkel, "The Noman Baron" (Longfellow).
 9.31: Part-song, vocal octet, "As Torrent in Summer" (Elgar).
 9.36: Selection—J. H. Squire Celeste Octet, "Chant Sans Paroles" (Tschalkowsky) (Columbia 02805).
 9.40: Contralto—Miss Mary Pratt, "Softly Awakes My Heart" (Saint-Saens).
 9.45: Vocal duet—Mr. Ernest Drake and Mr. F. Tuohy, "Fickle Hearted Mimi" (Puccini).
 9.48: Part songs—Vocal Octet, (a) "In This Hour of Softened Splendour" (Pinsuti), (b) "Good-night, Beloved" (Pinsuti).
 9.55: Selection—Orchestre Symphonique de Paris, "L'Arlesienne—Incidental Music" (Bizet) (Columbia 01324).
 10.3: Close down.

- 8.0: Chimes.
 8.1: Overture—IYA Orchestral Octet under the conductorship of Mr. Eric Waters, "Private Ortheris" (Ansell).
 8.11: Baritone—Mr. S. Pritchard, (a) "The Moon Drops Low" (Cadman), (b) "The Land of the Sky-Blue Water" (Cadman).
 8.17: Recital—Mr. T. Harris, "The Ballad of the Clamphedown" (Kipling).
 8.22: Guitar duo—Messrs. J. and F. Roberts, (a) "Hawaiian Hotel" (Nainas), (b) "Echoes" (Hawaiian Airs) (Medley).
 8.29: Soprano—Miss R. McCullay, "I Wonder If Love is a Dream" (Forster).
 8.33: Instrumental—IYA Orchestral Octet, "Waltzes Piquantes" (Peel).
 8.40: Cornet solo—Mr. W. Shepley, "Good-bye, Sweetheart" (Owen).
 8.44: Baritone—Mr. S. Pritchard, "The Sword of Ferrar" (Bullard).
 8.50: Recitals—Mr. T. Harris, (a) "The Brave Old Duke of York" (Squire), (b) "Orange Peel" (Milton Hayes).
 8.57: Instrumental—IYA Orchestral Octet, "Woodland Sketches" (MacDowell).
 9.7: Weather report.
 9.9: Guitar duo—Messrs. J. and F. Roberts, (a) "Wedding of the Painted Doll" (Brown), (b) "Kawhau Waltz" (MS.).
 9.16: Soprano—Miss R. McCullay, (a) "My Love is Like a Red, Red Rose" (Old Scottish), (b) "Afton Water" (Burns).
 9.20: Instrumental—IYA Orchestral Octet, "Ascanio Suite" (Saint-Saens).
 9.30: Special dance programme presented by Mr. Reg. Morgan and his Orchestra:
 Foxtrot—"Building a Nest for Mary" (Rose).
 Foxtrot—"Promise Me" (Van Couth).
 Foxtrot—"Breakaway" (Gottler).
 Foxtrot—"That You, Baby?" (Gottler).
 Waltz—"Lolita" (Stoneham).
 Waltz—"Carolina Moon" (Davis).
 Spanish tango—"Blue Rose of Spain" (Nicholls).
 Foxtrot—"The Toymaker's Dream" (Golden).
 Foxtrot—"Broadway Melody" (Brown).
 Foxtrot—"You Were Meant for Me" (Brown).
 Old-fashioned Waltz—"The Merry Widow" (Lehar).
 Foxtrot—"I Kiss Your Hand, Madame" (Erwin).
 Foxtrot—"Yo Te Amo" (Whiting).
 Foxtrot—"Weary River" (Clarke).
 Foxtrot—"Old Man Sunshine" (Warren).
 Waltz—"Rose of Flanders" (O'Hagan).
 Foxtrot—"My Inspiration is You" (Leslie).
 Foxtrot—"You're in My Heart" (Bryan).
 Foxtrot—"If You Want the Rainbow" (Rose).
 Foxtrot—"Happy Days and Lonely Nights" (Ager).
 Foxtrot—"Louise" (Whiting).
 Foxtrot—"On Top of the World Alone."
 1.0: Close down.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, DECEMBER 24.

- 3.0: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30: Sports results to hand.
 5.0: Children's session, conducted by Uncle George.
 6.0: Dinner session—"Parlophone" Hour:
 Fantasia—Edith Lorand Orchestra, "Johann Strauss" Fantasia (Strauss) (A4044).
 Piano and orchestra—Raie de Costa and Orchestra, "When Day is Done" (de Sylva) (A4041).
 6.12: Tacet.
 6.15: Hawaiian—David Galli, "Honolulu March" (A2464).
 Cinema organ—Leslie Harvey, "Where the Shy Little Violets Grow" (Warren) (A2695).
 Waltz—Dajos Bela Orchestra, "The Grenadiers" (Waldteufel).
 Saxophone—Arnold Brilhart, "Fascination" (Bernie) (A2676).
 6.28: Tacet.
 6.30: Waltz—Dajos Bela Orchestra, "Polish Life" (Nedbal) (A4008).
 Piano and orchestra—Raie da Costa, "Sweetheart, I'm Dreaming of You" (Carter) (A4041).
 Dajos Bela Orchestra, "Dancing Demoiselle" (Fall) (A4008).
 6.42: Tacet.
 6.45: Selection—Edith Lorand Orchestra, "Dollar Princess" (Fall).
 Waltz—Dajos Bela Orchestra, "Casino Tanze" (Gungi) (A4081).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 8.0: Chimes of the G.P.O. clock.
 8.1: Foxtrots—Allan's Dance Orchestra, (a) "Louise" (Robin); (b) "On Top of the World Alone" (Robin).
 8.8: Tenor—Mr. Ohas. Williams, "Song of Songs" (Moya).
 8.12: Waltzes—Allan's Dance Orchestra, (a) "Blue Hawaii" (Baer); (b) "Desert Song" (Romberg).
 8.22: Popular song—Mrs. Eileen Miller, "Honey" (Simons-Gillespie).
 8.26: Foxtrots—Allan's Dance Orchestra, (a) "One Alone" (Romberg); (b) "I Lift Up My Finger and Say 'Tweet Tweet'" (Sarony).
 8.34: Baritone—Mr. Will Goudie, (a) "There's Another Little Girl I'm Fond Of" (Bennett); (b) "Haere Tonu" (Horne).
 8.41: Foxtrots—Allan's Dance Orchestra, (a) "Wedding of the Painted Doll" (Brown); (b) "Misery Farm" (Wallis).
 8.49: Humorous musical sketch—Mr. and Mrs. E. Ransom Myers, "The Way to Do It" (Fane).

Thursday, December 26

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

- 1.45 a.m.: Relay of results of Christmas meeting of the Auckland Racing Club, interspersed with gramophone items.
 5 p.m.: Children's session conducted by "Peter Pan."
 6.0: Dinner session—"Columbia" Hour:
 Selection—B.B.C. Wireless Symphony Orchestra, "La Boutique Fantasque" (Respighi, arrgd. Carr) (Regal G30018).
 Cello—W. H. Squire, "Humoresque" (Dunkler-Squire) (04192).
 6.12: Tacet.
 6.15: J. H. Squire's Celeste Octet, "Chant Sans Paroles" (Tschalkowsky).
 Suite—Plaza Theatre Orchestra, "Gipsy Suite": (1) Valse, Lonely Life; (2) Allegro, The Dance (German) (02537).
 6.27: Tacet.
 6.30: Suite—Plaza Theatre Orchestra, "Gipsy Suite": (1) Menuetto, Love Duet; (2) Tarantella—The Revel (German) (02538).
 Madrid Symphony Orchestra, "Dance of the Neighbours" (de Falla).
 6.42: Tacet.
 6.45: Venetian Players String Quintet, (a) "Romanza" (Mozart), (b) "Allegro" (Mozart) (Regal G20467).
 Pianoforte—Ignaz Friedman, "Romance in B Flat" (Rubinstein).
 Basle Symphony Orchestra, "Rosamunde—Entr'acte No. 2" (Schubert).
 6.57: Tacet.
 7.0: News session and market reports.

- 8.56: Foxtrots—Allan's Dance Orchestra, (a) "Weary River" (Clarke); (b) "Walking with Susie" (Conrad).
 9.2: Weather report.
 9.4: Popular song—Mrs. Eileen Miller, "I'll Always Be In Love With You" (Ruby).
 9.8: Wurlitzer organ—Jesse Crawford, "My Sin" (de Sylva) (H.M.V.).
 9.11: Vocal duet—Messrs. Chas. Williams and Will Goudie, "Two Gendarmes" (Offenbach).
 9.15: Waltzes—Allan's Dance Orchestra, (a) "Pagan Love Song" (Freed); (b) "Marie" (Berlin).
 9.23: Bass—Mr. W. Binet Brown, (a) "Down in the Depths of the Sea" (St. Quentin); (b) "Reuben Ranzo" (Coates).
 9.30: Foxtrots—Allan's Dance Orchestra, (a) "Where the Shy Little Violets Grow" (Kahn); (b) "The Sun is at My Window" (Lewis); (c) "Sweet Sue" (Harris).
 9.40: Humorous musical sketch—Mr. and Mrs. E. Ransom Myers, "Domestic Economy" (Boden).
 9.47: Foxtrots—Allan's Dance Orchestra, (a) "Breakaway" (Conrad); (b) "That's You, Baby" (Conrad); (c) "You Were Meant for Me" (Brown) (d) "Broadway Melody" (Brown).
 10.0: Sea shanties—Lyric Quartet, (a) "Billy Boy" (arrgd. Sharpe); (b) "A-roving" (arrgd. Sharpe).
 10.5: Foxtrots—Allan's Dance Orchestra, (a) "A Room with a View" (Coward); (b) "I'm Just a Vagabond Lover" (Valle); (c) "Mississippi Moon" (Terese); (d) "Irving Berlin's Waltzes" (Berlin).
 10.17: Humour—Clapham and Dwyer, "Golf" (Clapham and Dwyer).
 10.23: Foxtrots—Allan's Dance Orchestra, (a) "Here Comes the Show Boat" (Rose); (b) "I Faw Down and Go Boom" (Brockman); (c) "Dusky Stevedore" (Johnson).
 10.32: Light vocal solo—Mrs. Eileen Miller, "The Blue Danube Waltz" (Strauss).
 10.36: Accordion—Johnnie Sylvester, "Waltz Medley" (Regal G20350).
 10.39: Foxtrots—Allan's Dance Orchestra, (a) "Pickin' Cotton" (de Sylva); (b) "Old Man Sunshine" (Dixon); (c) "The Toymaker's Dream" (Golden).
 10.48: Comedian—Harry Lauder, "She is ma Daisy" (Lauder). (Zonophone).
 10.51: Allan's Dance Orchestra in the latest releases of foxtrot and waltz numbers.
 11.0: Close down.

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

- 3.0: Afternoon session—Selected studio items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Uncle John.
 6.0: Dinner session—"Columbia" Hour:
 Selection—H.M. Grenadier Guards Band, "New Sullivan Selection" (arrgd. Godfrey) (02731).
 Waltz—Court Symphony Orchestra, "Destiny Waltz" (Baynes) (564).
 6.12: Tacet.
 6.15: Columbia Symphony Orchestra, "Idillio" (Lack) (01076).
 Suite—New Queen's Hall Light Orchestra, "Petite Suite de Concert" (Coleridge-Taylor): (1) La Caprice de Nanette, (2) Demande et Response (02588).
 6.26: Tacet.
 6.30: Suite—New Queen's Hall Light Orchestra, "Petite Suite de Concert" (Coleridge-Taylor): (1) Un Sonnet d'Amour, (2) La Tarantelle Fretillante (02589).
 Wurlitzer organ—Terence Casey, "I'm Lonely" (Coates) (01501).
 6.42: Tacet.
 6.45: Dance suite—H.M. Grenadier Guards Band, "Nell Gwynn Dances" (German): (1) Country Dance, (2) Pastoral Dance (01829).
 Columbia Symphony Orchestra, "Spring Song" (Mendelssohn) (01076).
 Waltz—Symphony Orchestra, "Morgen Blatter" (Strauss) (9218).
 6.58: Tacet.
 7.0: News session.
 8.0: Chimes.
 8.1: Overture—Studio Instrumental Octet, under the conductorship of Mr. Harold Beck, "Artists' life" (Strauss).
 8.11: Mezzo-soprano—Miss Khura Hart-Stewart, "Kashmiri Song" (Woodforde-Finden).
 8.15: Xylophone—Victor Sterling, "Colonel Bogey March" (Alford) (Regal).
 8.18: Tenor—Mr. Harold Prescott, (a) "Serenata" (Toselli); (b) "'Tis the Day" ("Matinata") (Leoncavallo).
 8.24: Band of the Garde Republicaine de France, "Le Bombardier" (Paree).
 8.27: Happy songs at the piano with ukulele—The Joyous Pair, (a) "That's You Baby" (Conrad); (b) "Making Whoopee" (Donaldson).
 8.34: Studio Instrumental Octet, "Wildflower" Selection (Youmans).
 8.44: Contralto—Miss Eileen Irwin, (a) "The Key to Your Heart" (Willeby); (b) "Neath Your Casement" (Willeby).
 8.49: Organ solo—Terence Casey, "I'm Lonely" (Coates) (Col. 01501).
 8.52: Bass—Mr. W. H. Inkster, "Three for Jack" (Squire).
 8.56: Chorus—Columbia Light Opera Company, Vocal Gems from "The Desert Song" (Romberg) (Columbia 02558).
 9.0: Weather report.
 9.2: Studio Instrumental Octet, (a) "Ave Maria" (Bach); (b) "Edelweiss Gavotte" (Tourbie).
 9.10: Mezzo-soprano—Miss Khura Hart-Stewart, (a) "Piper June" (Carew); (b) "The Little Old Inn by the Sea" (Arundale).
 9.16: Reel—O'Leary Irish Minstrels, "Turkey in the Straw" (Traditional).
 9.19: Tenor—Mr. Harold Prescott, "Ah, Moon of My Delight" (Lehmann).

- 9.23: Studio Instrumental Octet, (a) "You Were Meant for Me" (Brown); (b) "Broadway Melody" (Brown).
 9.31: Happy songs at piano with ukulele—The Joyous Pair, (a) "You're the Cream in My Coffee" (de Sylva); (b) "Up in the Clouds" (Kalmar).
 9.38: Band of the Garde Republicaine de France, "Marche Indienne" (Selenick) (Columbia 01504).
 9.41: Contralto—Miss Eileen Irwin, "Wait" (D'Hardelot).
 9.45: Studio Instrumental Octet—"Serenade" (Pierne).
 9.49: Bass—Mr. W. H. Inkster, (a) "A Throne of Roses" (Barry); (b) "Red Devon by the Sea" (Clarke).
 9.55: Chorus—Columbia Light Opera Company, Vocal Gems from "Oh, Kay" (Gershwin) (Columbia 02558).
 10.0: "Brunswick" Dance Programme:
 Foxtrot—Brunswick Orchestra, "I'd Rather be Blue" (Rose) (4213).
 Foxtrot—Red Nicholls' Five Pennies, "I Never Knew" (Kahn) (4243).
 Foxtrot—Brunswick Orchestra, "My Man" (Pollack) (4213).
 10.10: Vocal solo—Nick Lucas, "Heart o' Mine" (Rose) (4215).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Broadway Melody" (Brown) (4231).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Wedding of the Painted Doll" (Brown) (4232).
 Waltz—Los Angeles Biltmore Hotel Orchestra, "Love Boat" (Brown).
 10.22: Vocal solo—Nick Lucas, "Old-Timer" (Rose) (4215).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "You Were Meant for Me" (Brown) (4231).
 Foxtrot—Jungle Band, "Tiger Rag" (La Rocca) (4238).
 10.34: Tenor—Wm. O'Neal, "Softly, as in a Morning Sunrise" (Romberg).
 Foxtrot—Royal Creolians, "It's Tight Like That" (Dorsey) (4244).
 Foxtrot—Paramount Hotel Orchestra, "I'll Never Ask for More" (Turk) (4203).
 Foxtrot—Hotel Roosevelt Orchestra, "I Want to be Bad" (de Sylva).
 One-step—Rhythm Aces, "Jazz Battle" (Smith) (4244).
 10.49: Tenor—Wm. O'Neal, "Stout-Hearted Men" (Romberg) (4208).
 Foxtrot—Paramount Hotel Orchestra, "Button Up Your Overcoat" (de Sylva) (4204).
 Foxtrot—Red Nicholls' Five Pennies, "Who's Sorry Now?" (Kalmar).
 11.0: Close down.

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

- 3.0: Town Hall chimes.
 3.1: Selected gramophone items.
 6.0: Dinner session—"Columbia" Hour:
 Suite—Ketelhey's Concert Orchestra, "In a Fairy Realm" (Ketelhey):
 (1) The Moonlit Glade, (2) The Queen Fairy Dances, (3) Gnomes March (02694-5).
 6.12: Tacet.
 6.15: Columbia Symphony Orchestra—"March of the Bojaren" (Halvorsen).
 Cello—Gaspar Cassado, "Melodie Arabe" (Glazounov) (03579).
 New Queen's Hall Light Orchestra, "Wood Nymphs" (Coates) (02591).
 6.26: Tacet.
 6.30: New Queen's Hall Light Orchestra, "Summer Days" Suite (Coates):
 (1) In a Country Lane, (2) On the Edge of the Lake, (3) At the Dance (02590-1).
 6.42: Tacet.
 6.45: J. H. Squire's Celeste Octet, "Memories of Mendelssohn" (arrgd. Sear).
 Columbia Symphony Orchestra, "Bridal Procession" (Grieg) (02622).
 6.57: Tacet.
 8.0: Chimes.
 8.1: Instrumental—The Melody Four, (a) "Dernier d'Amour" (Gung'l), (b) "Serenade" (Jansen).
 8.11: Soprano—Miss Freda Elmes, "June is in My Heart" (Vaughan).
 8.15: Xylophone solo—W. W. Bennett, "Gee Whiz!" (Brooke) (Col. 02572).
 8.19: Recital—Mr. Lester Moller, "Bombardier Gerard" (Sterne).
 8.25: Instrumental—The Melody Four, (a) "Narcissus" (Nevin), (b) "Polish Dance" (Schwarenska).
 8.35: Baritone—Mr. F. M. Tuohy, (a) "Harbour Night Song" (Sanderson), (b) "Only the River" (Hopkins).
 8.42: Clarinet solo—Mr. S. George, "Alicante Fantasia" (Le Thiene).
 8.46: Theatre organ—Quentin Maclean, "Merchant of Venice" Suite—Prelude (Rosse) (Columbia 02796).
 8.50: Scottish humorist—"Buster Brown," "Ta Ta, My Bonnie Maggie Darlin'" (Lauder).
 8.56: Instrumental—Melody Four, "Valse de la Paine" (Coleridge-Taylor).
 9.1: Weather report.
 9.3: Soprano—Miss Freda Elmes, (a) "If My Songs Were Only Winged" (Hahn), (b) "Summer Afternoon" (Coates).
 9.10: Recital—Mr. Lester Moller, "A Changed Man" (Anon.).
 9.14: Instrumental—Melody Four, (a) "Allegretto" (Grieg), (b) "Hungarian Dance No. 1" (Brahms).
 9.22: Baritone—Mr. F. M. Tuohy, "Can't You Remember?" (Goatley).
 9.25: Instrumental—Melody Four, (a) "Spanish Dance" No. 3 (Moszkowski), (b) "Country Dance" (Beethoven).
 9.31: Scottish Humorist—"Buster Brown," "Bella, the Belle of Dunoon" (Lauder).
 9.35: Pianoforte—Mr. A. W. Pettitt, "Waltz in B Minor" (Chopin).
 9.38: "Columbia" Dance Programme:
 Foxtrot—Palais Royal Orchestra, "Louise" (Whiting) (Regal G20527).
 Foxtrot—Ambassadors Band, "My Man" (Channing) (01566).
 Foxtrot—Willie Creager's Orchestra, "On Top of the World Alone" (Whiting) (Regal G20527).

- 9.50 : Foxtro—Ambassadors Band, "Second-Hand Rose" (Clarke) (01566).
 Hawaiian—Milford's Hawaiian Players, "Hawaiian Hotel" (Nainas) (Regal G20549).
 Foxtro—The Harmonians, "When My Dreams Come True" (Berlin) (Regal G20556).
 Foxtro—Paul Whiteman's Orchestra, "China Boy" (Winfree) (07025).
 Foxtro—Stellar Dance Band, "This is Heaven" (Yellen) (Regal).
 Waltz—Gil Dech's Syncopators, "Old-Timer" (Rose) (01686).
 10.5 : Soprano—Marie Burke, "I'd Rather Be Blue Over You" (Rose).
 Foxtro—Paul Whiteman's Orchestra, "I'm in Seventh Heaven" (De Sylva) (07023).
 Foxtro—Paul Whiteman's Orchestra, "Oh, Miss Hannah!" (Deppen).
 Foxtro—Paul Whiteman's Orchestra, "Little Pal" (De Sylva) (07023).
 Foxtro—Rhythmic Troubadours, "You're the Cream in My Coffee" (De Sylva) (Regal G20555).
 10.20 : Hawaiian—Milford's Hawaiian Players, "Honymoon Chimes" (Brown) (Regal G20550).
 Foxtro—Royal Canadians, "This is Heaven" (Yellen) (01632).
 Foxtro—Royal Canadians, "I Get the Blues when it Rains" (Weaver).
 Waltz—Milford's Hawaiian Players, "Kawaihau" (Hawaiian Air) (Regal G20550).
 10.32 : Soprano—Marie Burke, "You Kiss My Hand, Monsieur" (Erwin).
 Foxtro—Rhythmic Troubadours, "Jericho" (Robin) (Regal G20532).
 Foxtro—Gil Dech's Syncopators, "The ToyMaker's Dream" (Golden).
 Foxtro—Ray Starita's Ambassadors, "Ever So Goosey" (Wright).
 Foxtro—Rhythmic Troubadours, "Do Something" (Green) (Regal).
 Foxtro—Ipana Troubadours, "To Be in Love" (Turk) (01660).
 10.50 : Hawaiian—Milford's Hawaiian Players, "Aloha Land" (Herzer) (Regal G20549).
 Foxtro—All-Star Trio, "Dream Mother" (Burke) (01630).
 Foxtro—Rhythmic Troubadours, "To Know You is to Love You" (De Sylva) (Regal G20555).
 Foxtro—Corona Dance Band, "Olaf" (Baer) (Regal G20510).
 Waltz—All-Star Trio, "Evangeline" (Jolson) (01630).
 11.0 : Close down.

Friday, December 27

2YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, DECEMBER 27.

- 12.0 : Results of Christmas meeting of the Auckland Trotting Club, interspersed with gramophone items.
 5 p.m. : Children's session conducted by Nod and Aunt Jean.
 6.0 : Dinner session—"His Master's Voice" Hour:
 Overture—Berlin State Opera Orchestra, "The Magic Flute" (Mozart).
 Royal Opera Orchestra, "Hungarian Dance No. 5 in F Sharp Minor" (Brahms) (C1415).
 Grand organ solo—Arthur Meale, "Simple Aven" (Thome) (Zono. 5162).
 6.13 : Tacet.
 6.15 : New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg) : (1) Ingrid's Lament, (2) Arabian Dance (C1571).
 Violin—Erica Morini, "Romanza Andaluza" (Sarasate) (D1445).
 6.27 : Tacet.
 6.30 : New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg) : (1) Return of Peer Gynt, (2) Solveig's Song (C1572).
 Violin—Erica Morini, "Introduction and Tarantelle" (Sarasate).
 6.42 : Tacet.
 6.45 : Marek Weber's Orchestra, "Vienna by Night" (Komzak) (C1507).
 Cello—Lauri Kennedy, "Hungarian Rhapsody" (Popper) (C1595).
 6.57 : Tacet.
 7.0 : News session and market reports.
 8.0 : Chimes.
 8.1 : Relay of concert from Lewis Eady Hall.
 8.30 : One-act Play, Auckland Comedy Players, "The Escape" (Parr).
 9.0 : Weather report.
 9.2 : Instrumental—Studio Trio, (a) "Prelude in C Sharp Minor" (Rachmaninoff), (b) "Autumn and Winter" (Glazounov).
 9.10 : Tenor—Mr. R. Dormer, (a) "For You Alone" (Geehl), (b) "Sincerity" (Clarke).
 9.15 : Scottish humour—Mr. Jock Lockhart.
 9.22 : Instrumental—Julian Fuh's Symphony Orchestra, "Rhapsody in Blue" (Gershwin) (Parlophone 4034).
 9.30 : Violin—Miss Ina Bosworth, "Nocturne in E Flat Major" (Chopin, arrgd. Sarasate).
 9.34 : Tenor—Mr. R. Dormer, (a) "A Farewell" (Liddle), (b) "Mountain Lovers" (Squire).
 9.41 : Scottish humour—Mr. Jock Lockhart.
 9.48 : Instrumental—Studio Trio, "Hymn to the Sun" ("Le Coq d'Or") (Rimsky-Korsakov).
 9.54 : Comedy sketch—Auckland Comedy Players, "The Night Porter" (Wall).
 10.8 : Instrumental—Grand Symphony Orchestra, "Merry Wives of Windsor" Overture (Nicolai) (Parlophone 4083).
 10.10 : Close down.

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

- 3.0 : Chimes of the G.P.O. clock.
 3.1 : Selected gramophone items.
 4.30 and 4.50 : Sports results to hand.

- 5.0 : Children's session, conducted by Big Brother Jack.
 6.0 : Dinner Session—"His Master's Voice" Hour:
 Overture—H.M. Coldstream Guards Band, "Poet and Peasant" (Suppe).
 Symphony Orchestra, "Love, the Magician" (De Falla) (D1453).
 6.12 : Tacet.
 6.15 : March—United States Army Band, "Army and Marine" (Starke).
 Waltz—International Novelty Quartet, "Cuckoo" (Jonasson).
 Waltz—Jack Hylton's Orchestra, "Spanish Rose" (Pearson) (B5481).
 Xylophone—Sam Herman, "Al Fresco" (Zonophone EE53).
 6.27 : Tacet.
 6.30 : New Light Symphony Orchestra—"In a Clock Store" (Orth).
 March—Royal Opera Orchestra, "Marche Hongroise" (Berlioz).
 Symphony Orchestra, "Spanish Dance" (De Falla) (D1453).
 6.42 : Tacet.
 6.45 : Schottische—International Novelty Quartet, "Lena" (Mewes).
 Pipe organ, piano, trombone and harp—Shilkret's Rhythm Melodists, "When You're With Somebody Else" (Gilbert) (EA336).
 Waltz—Jack Hylton's Orchestra, "The Angelus was Ringing" (Damarrell) (B5481).
 March—United States Army Band, "American Spirit" (Buglione).
 6.57 : Tacet.
 7.0 : News session, market reports and sports results.
 8.0 : Chimes of the G.P.O. clock.
 8.1 : Overture—2YA Orchestra under the conductorship of Signor Truda, "Masaniello" (Auber).
 8.9 : Vocal duet—Miss Ena Rapley and Mr. Edwin Dennis, "Boy and Girl" ("Country Girl" (Monckton).
 8.13 : Baritone—Mr. Arthur Brady, "A Sailor's Life" ("Country Girl" (Monckton).
 8.17 : Organ—Edward O'Henry, "Faust Waltz" (Gounod) (H.M.V. B2873).
 8.20 : Contralto—Miss R. Jackson, "Sail, My Ships" ("The Rebel Maid") (Montague Phillips).
 8.24 : Selection—2YA Orchestra, "Romeo and Juliet" (Gounod).
 8.33 : Sketch—Mr. and Mrs. William Bailey, "The Test Kiss" (Keble Howard).
 8.45 : Cello—W. H. Squire, "Gavotte" (Mehul) (Columbia 03646).
 8.48 : Tenor—Mr. Edwin Dennis, "Rose Marie" (Friml).
 8.52 : Selection—2YA Orchestra, "Dorothy" (arrgd. Pougher).
 9.3 : Weather report.
 9.2 : Soprano—Miss Ena Rapley, "Try Again Johnny" ("Country Girl") (Monckton).
 9.6 : Baritone—Mr. Arthur Brady, "Peace" ("Country Girl") (Monckton).
 9.10 : Cello—W. H. Squire, "Melody in F" (Rubinstein-Popper) (Col. 04178).
 9.13 : Tenor—Mr. Edwin Dennis, "Vesta La Guibba" ("Pagliacci") (Leoncavallo).
 9.17 : Musical comedy selection—2YA Orchestra, "My Cinderella Girl" (Peter).
 9.25 : Sketch—Mr. and Mrs. J. William Bailey, "Two on a Bus" (Swears).
 9.41 : Instrumental—National Military Band, "Lohengrin—Prelude Act 3" (Wagner) (Zonophone A358).
 9.45 : Contralto—Miss R. Jackson, "Danny Boy" (O'Connor Morris).
 9.49 : Vocal duet—Messrs. Edwin Dennis and Arthur Brady, "Ho, Ho, Diddle Dum" ("The Rebel Maid") (Montague Phillips).
 9.53 : Waltz—2YA Orchestra, "Dolores Waltz" (Waldteufel).
 10.0 : Close down.

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

- 3.0 : Afternoon session—selected studio items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by "Storyman."
 6.0 : Dinner Session—"His Master's Voice" Hour:
 March—U.S. Army Band, "Army and Marine" (Starke).
 Selection—Piccadilly Orchestra, "The Waltz Dream" (Strauss).
 Jack Hylton's Orchestra, "My Inspiration Is You" (Nicholls) (C1577).
 6.12 : Tacet.
 6.15 : Royal Opera Orchestra, "Sylvia Ballet—Prelude" (Delibes) (C1417).
 Royal Opera Orchestra, "Sylvia Ballet—Intermezzo" (Delibes).
 Salon Orchestra, "Chanson Bohemienne" (Baldi) (B2531).
 6.27 : Tacet.
 6.30 : Jack Hylton's Orchestra, "A Room With a View" (Coward) (C1577).
 Salon Orchestra, "Aloha Sunset Land" (Kawelo) (B2531).
 March—San Francisco Symphony Orchestra, "Marche Militaire" (Schubert) (ED9).
 6.42 : Tacet.
 6.45 : Detroit Symphony Orchestra, "Spanish Rhapsody" (Chabrier) (E522).
 Balalaika Orchestra, "Shining Moon" (Russian Folk song) (EA48).
 March—U.S. Army Band, "American Spirit" (Buglione).
 6.57 : Tacet.
 7.0 : News session.
 8.0 : Chimes.
 8.1 : Overture—De Groot's Orchestra, "Merry Widow" (Lehar).
 8.9 : Soprano—Miss Betty Sutton, "Nightingale of June" (Sanderson).
 8.13 : Violin and Wurlitzer organ—Chas. Williams, "Melody in F" (Rubinstein) (Zonophone 5194).
 8.16 : Tenor—Mr. L. C. Quane, "The Flutes of Arcady" (James).
 8.20 : Dance music—Bailey Marston Dance Orchestra, (a) "The ToyMaker's Dream" (Golden), (b) "Laughing Marionette" (Collins).
 8.28 : Mezzo-soprano—Miss Rita Lucas, (a) "Sleepy Hollow Tune" (Fosdick), (b) "O Ship of My Delight" (Phillips).

- 8.34: Accordion, banjo and string bass—Victoria Trio, "The Prince Waltz" (Gallini) (Zonophone A343).
- 8.37: Recitals—Miss Winifred Smith, (a) "Mr. Jones' Dilemma" (MS), (b) "White Mother Attends the Meeting" (MS).
- 8.42: Dance music—Bailey-Marston Dance Orchestra, (a) "Shoo Shoo, Boggie Boo" (Whiting), (b) "Walking With Susie" (Conrad).
- 8.50: Baritone—Mr. A. Gladstone Brown, (a) "Eleanore" (Coleridge-Taylor), (b) "Song of the Clock" (Burchell).
- 8.56: Bass with chorus—Paul Robeson, "Plantation Songs" (trdtl.).
- 9.2: Weather report.
- 9.4: Dance music—Bailey-Marston Dance Orchestra, (a) "Mean to Me" (Turk), (b) "Ever So Goosey" (Wallace).
- 9.12: Soprano—Miss Betty Sutton, (a) "A Birthday" (Woodman), (b) "The Fairy Pedlar" (Rowley).
- 9.18: Violin and organ—Chas. Williams, "Somewhere a Voice is Calling" (Tate) (Zonophone 5194).
- 9.21: Tenor—Mr. L. C. Quane, (a) "Rosebud" (Drummond), (b) "Nirvana" (Adams).
- 9.27: Dance music—Bailey-Marston Dance Orchestra, (a) "Outside" (Flynn), (b) "This is Heaven" (Whiting).
- 9.35: Mezzo-soprano—Miss Rita Lucas, "The Sands o' Dee" (Clay).
- 9.39: Saxophone—Rudy Wiedoeft, "Rubenola" (Wiedoeft).
- 9.42: Baritone—Mr. A. Gladstone Brown, "On the Road to Mandalay" (Speaks).
- 9.46: Dance music—Bailey-Marston Dance Orchestra, (a) "Sunrise to Sunset" (Nichols), (b) "When Summer is Gone" (Wilhite).
- 9.54: Recital—Miss Winifred Smith, "Jones Comes Home Late" (Hastings).
- 9.59: Bass with chorus—Paul Robeson, "More Plantation Songs" (trdtl.).
- 10.3: Dance music—Bailey-Marston Dance Orchestra:
 "Louise" (Robin).
 "I'm Just a Vagabond Lover" (Vallee).
 "Jericho" (Myers).
 "Sweetheart of All My Dreams" (Lowe).
 "Broadway Melody" (Brown).
 "You Were Meant for Me" (Brown).
 "That's You Baby" (Gottler).
 "Breakaway" (Gottler).
 "Irving Berlin's Waltzes" (Berlin).
 "The Sun is at My Window" (Young).
- 11.0: Close down.

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

- 8.0: Town Hall chimes.
- 8.1: Selected gramophone items.
- 8.25: Sports results to hand.
- 9.0: Children's session, conducted by Aunt Sheila.
- 9.6: Dinner Session—"His Master's Voice" Hour:
 New Light Symphony Orchestra, "Merry Wives of Windsor" (Nicolai).
 Waltz—Marek Weber's Orchestra, "Moonlight on the Alster" (Fctras).
- 9.12: Tacet.
- 9.15: New Light Symphony Orchestra, "Hearts and Flowers" (Tobani).
 Waltz—Marek Weber's Orchestra, "Wine, Women and Song" (Weber).
 Wurflitzer organ—Reginald Foort, "By the Blue Hawaiian Waters" (Ketelbey) (C1459).
- 9.26: Tacet.
- 9.30: New Light Symphony Orchestra, "The Glow Worm Idyll" (Lincke).
 Victor Salon Orchestra, "Indian Love Call" ("Rose Marie") (Prinl).
 Victor Salon Orchestra, "The World is Waiting for the Sunrise" (Lockhart) (EA186).
 Novelty—Balalaika Orchestra, "Song of the Volga Boatmen" (Russian folk song) (EA48).
- 9.43: Tacet.
- 9.45: De Groot's Orchestra, "The Merry Widow" (Lehar) (B2945).
 Wurflitzer organ—Reginald Foort, (a) "Leave Me Alone" (Dvorak);
 (b) "Songs My Mother Taught Me" (Dvorak) (C1459).
- 9.57: Tacet.
- 7.0: News session.
- 8.0: Town Hall chimes.
- 8.1: Overture—Instrumental Quartet, "Valse De Concert—Acclamations" (Waldteufel), (b) "Morceau—Sleepy Village" (Irwin).
- 8.9: Contralto—Mrs. Ritchie, (a) "Sink, Red Sun" (Del Riego); (b) "Melisande in the Wood" (Goetz).
- 8.13: Cello—Mr. P. J. Palmer, "Consolation" (Squire).
- 8.17: Tenor—Mr. G. Crawford, "Somewhere" (Meale).
- 8.21: Instrumental Quartet—(a) "The Alpine Climbers" (Joyce); (b) Bourree and Musette" (Morgan).
- 8.31: Soprano—Miss Evelyn A. Shephard, "Night is Our Sister" (Chutter).
- 8.35: Grand organ and cornet—R. Arnold Grier, "The Lost Chord" (Sullivan) (Zonophone A309).
- 8.39: Recital—Miss Ngata Buswell, selection from "Three Men in a Boat" (Jerome).
- 8.44: Instrumental Quartet—Three Eastern Sketches (Howgill), 1. "Matin," 2. "Apres Midi," 3. "Soir."
- 8.52: Bass—Mr. Alan Breck, "You Along o' Me" (Sanderson).
- 8.56: Violin and organ—De Groot and Terence Casey, "Cavatina" (Raff).
- 9.0: Weather report.
- 9.2: Instrumental—Quartet, (a) "Etude" (Chopin), (b) "Orientale" (Cui).
- 9.10: Contralto—Mrs. Ritchie, "My Dear Soul" (Sanderson).
- 9.15: Cello—Mr. P. J. Palmer, "Serenade" (Squire).
- 9.18: Tenor—Mr. G. Crawford, (a) "Oh, Man From the Fields" (McGill);
 "They Say" (Warwick-Evans).

- 9.24: Instrumental Quartet—"In a Fairy Relam" suite (Ketelbey).
- 9.32: Soprano—Miss Evelyn A. Shephard, (a) "Big Brother Day" (Chutter);
 (b) "Will He Come" (Haydn).
- 9.38: Grand organ and cornet—R. Arnold Grier, "Softly Awakes My Heart" ("Samson and Delilah") (Saint-Saens) (Zonophone A309).
- 9.41: Recital—Miss Ngata Buswell, selection from "Three Men in a Boat" (Jerome).
- 9.47: Violin and organ—De Groot and Terence Casey, "Parted" (Tosti).
- 9.50: Bass—Mr. Alan Breck, (a) "Shipmates" (Sanderson), (b) "Duna" (McGill).
- 9.56: Instrumental Quartet—Valse de Concert, "Blue Danube" (Strauss).
- 10.1: Close down.

Saturday, December 28

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

- 11.45: Results of Christmas Meeting of Auckland Trotting Club, interspersed with gramophone items.
- 5.0: Children's session, conducted by Cinderella.
- 6.0: Dinner session—"Columbia" Hour:
 Ketelbey's Concert Orchestra, "In a Persian Market" (Ketelbey).
 Violin—Efrem Zimbalist, "Liebesleid—Old Vienna Waltz" (Kreisler).
- 6.12: Tacet.
- 6.15: Morceau—Plaza Theatre Orchestra, "The Busy Bee" (Bendix).
 Dance—Plaza Theatre Orchestra, "My Lady Dainty" (Hesse).
 J. H. Squire Celeste Octet, "La Serenata" (Graga) (9116).
 Cinema organ—G. T. Pattman, "Firefly" (Nicholls) (01348).
- 6.27: Tacet.
- 6.30: Columbia Symphony Orchestra, "March of the Toys" (Herbert).
 Waltz—New Concert Orchestra, "Hydropaten" (Sarasate).
- 6.42: Tacet.
- 6.45: Waltz—New Concert Orchestra, "Jolly Fellows" (Bruder) (02672).
 J. H. Squire Celeste Octet, "Serenade" (Titl) (9116).
 Waltz—Eddie Thomas Collegians, "Beautiful Ohio" (Earl) (01651).
- 6.56: Tacet.
- 7.0: News session and market reports.
- 8.0: Chimes.
- 8.1: Overture—1YA Orchestral Octet under the conductorship of Mr. Eric Waters, "Morning, Noon and Night" (Suppe).
- 8.11: Baritone—Mr. John Bree, "Song of the Bell" (Coleridge-Taylor).
- 8.15: Instrumental novelty—Victoria Trio, "La Sorella" (Gallini) (Zono.).
- 8.19: Soprano—Madame Mary Towsey, "All Souls Day" (Fassen).
- 8.23: Humour—Mr. T. T. Garland, Humour.
- 8.29: Instrumental—1YA Orchestral Octet, (a) "Passepied" ("Le Roi S'Amuse") (Delibes); (b) "Serenata" (Tarenkhi).
- 8.39: Contralto—Miss Aimee Clapham, "Lullaby" (Scott).
- 8.43: Scottish comedian—Mr. Jock Lockhart.
- 8.50: Vocal trip—Madame Mary Towsey's Trio, "Lullaby" (Brahm).
- 8.54: Instrumental—Band of H.M. Coldstream Guards, "A Musical Switch" (arrgd. Alford) (H.M.V. C1580).
- 9.2: Weather report.
- 9.4: Baritone—Mr. J. Bree, "Eleanor" (Oliver).
- 9.8: Instrumental—1YA Orchestral Octet, (a) "Valse Triste" (Sibelius);
 (b) "Cossack Lullaby" (Jiranek).
- 9.15: Vocal duo—Madame Mary Towsey and Miss Aimee Clapham, "Still as the Night" (Bohm).
- 9.19: Humour—Mr. T. T. Garland, More Humour.
- 9.25: Pianoforte duet—Victor Arden and Phil Ohman, "Ragamuffin" (Greer).
- 9.28: Contralto—Miss Aimee Clapham, "Ships of Arcady" (Head).
- 9.32: Selection—1YA Orchestral Octet, "The Persian Princess" (Finck).
- 9.42: Soprano—Madame Mary Towsey, "When the Roses Bloom" (Reichardt).
- 9.46: Wurflitzer organ—Reginald Foort, "Forever" (Ager) (H.M.V. B3044).
- 9.49: Comedian—Harry Lauder, "Rising Early in the Morning" (Lauder).
- 9.56: Instrumental—1YA Orchestral Octet, Latest Novelties.
- 10.0: "His Master's Voice" Dance Programme:
 Foxtrot—Nat Shilkret's Orchestra, "Because I Know You're Mine" (Derickson) (EA515).
 Foxtrot—Jack Hylton's Orchestra, "I Kiss Your Hand, Madame" (Erwin) (EA519).
 Banjo—Mario de Pietro, "Frivolous Joe" (de Pietro) (B2820).
 Foxtrot—Nat Shilkret's Orchestra, "I Want a Daddy to Cuddle Me" (Ebie) (EA515).
 Foxtrot—Waring's Pennsylvanians, "That's How I Feel About You" (Davis) (EA516).
 Waltz—Jean Goldkettes Orchestra, "Can You Blame Me?" (Goodwin).
- 10.19: Baritone—Noel Coward, "Lorelei" (Coward) (B2737).
 Foxtrot—New Mayfair Dance Orchestra, "The Egg Song" (Salisbury).
 Foxtrot—Geo. Olsen's Music, "In a Little Town Called Home, Sweet Home" (Donaldson) (EA516).
 Tango—Rio Grande Tango Band, "The Tile Trot" (Penso) (EA517).
- 10.31: Comedian—Frank Crumit, "The Road to Vicksburg" (Crumit).
 Foxtrot—Nat Shilkret's Orchestra, "Broadway Melody" (Brown).
 Foxtrot—Waring's Pennsylvanians, "My Castle in Spain" (Caesar).
- 10.40: Mandoline solo—Mario de Pietro, "Concert Mazurka" (Calace).
 Foxtrot—Nat Shilkret's Orchestra, "You Were Meant for Me" (Freder).
 Foxtrot—Geo. Olsen's Music, "Makin' Whoopee!" (Kahn) (EA498).
- 10.50: Comedian—Frank Crumit, "The King of Borneo" (Crumit) (EA524).

11.0 : Close down.

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

- 3.0 : Chimes of the G.P.O. clock.
 3.1 : Selected studio items interspersed with summaries of the Cricket Match at Basin Reserve (Wellington versus Canterbury).
 5.0 : Children's session conducted by Uncle Toby and Aunt Gwen.
 6.0 : Dinner session—"Columbia" Hour:
 March—National Military Band, "National Emblem" (Bagley) (01153).
 'Cello—W. H. Squire, "The Broken Melody" (Van Biene) (04180).
 Albert Sandler's Orchestra, "I Kiss Your Hand, Madame" (Erwin).
 Cinema organ—G. T. Pattman, "Cherie Waltz" (Valentine) (01344).
 6.12 : Tacet.
 6.15 : Court Symphony Orchestra, "The Gondoliers" (Sullivan) (979).
 Paul Whiteman's Orchestra, "Gipsy" (Gilbert) (07505).
 6.27 : Tacet.
 6.30 : Albert Sandler's Orchestra, "Chalita" (Schertzing) (01467).
 Padilla's Marimba Serenaders, "Paree" (Padilla) (Regal G20344).
 Pianoforte—Gil Dech, "Sometimes I'm Happy" (Youmans) (01205).
 Royal Serbian Tambouritzza Orchestra, "Serbian Melody" (01490).
 6.42 : Tacet.
 6.45 : Intermezzo—Ketelbey's Orchestra, "Bells Across the Meadow" (Ketelbey) (02695).
 Rio Marimba Serenaders, "Dolores" Waltz (Waldteufel) (Regal).
 Organ—G. T. Pattman, "Worryin' Waltz" (Fairman) (01344).
 March—National Military Band, "Stars and Stripes" (Sousa) (01153).
 6.57 : Tacet.
 7.0 : News session, market reports and sports results.
 7.40 : Lecturette—Mr. Walter F. Dudson, "Skin Diseases".
 8.0 : Chimes of the G.P.O. clock.
 8.1 : Overture—2YA Salon Orchestra under the conductorship of Mr. M. T. Dixon, "Americana Suite" (Thurban).
 8.9 : Soprano—Miss Rosina Exton, "Bird of Love Divine" (Haydn Wood).
 8.13 : Banjo duets—Mrs. Mildred Kenny and Mr. M. Tonks, (a) "Yo Te Amo" (Whiting), (b) "Sleepy Valley" (Dowling).
 8.20 : Baritone—Mr. Claude O'Hagan, "Captain Mac" (Sanderson).
 8.24 : Musical comedy selection—2YA Salon Orchestra, "The Cabaret Girl" (Kern).
 8.32 : Humour—Mr. Albert Davey, "The Silver Prize Band" (Thomas).
 8.39 : Contralto—Miss Agnes McDavitt, "Only the River Running By" (Hopkins).
 8.43 : Duet for two pianos—Victor Arden and Phil Ohman, "Ragamuffin" (Greer) (Zonophone EE166).
 8.46 : Tenor—Mr. Seon Brown, "Thinking" (Ohman).
 8.50 : Instrumental—2YA Salon Orchestra, request number.
 8.58 : Weather report.
 9.0 : Soprano—Miss Rosina Exton, (a) "The Blacksmith" (Brahms), (b) "The Willow Song" (Sullivan).
 9.7 : Banjo duets—Mrs. Mildred Kenny and Mr. M. Tonks, (a) "Lady of Love" (Zamecnik), (b) "Honey" (Whiting).
 9.14 : Baritone—Mr. Claude O'Hagan, (a) "Tommy, Lad" (Margetson), (b) "Red Devon by the Sea" (Clarke).
 9.21 : Selection—2YA Salon Orchestra, "Southern Wedding" (Lotter).
 9.29 : Contralto—Miss Agnes McDavitt, (b) "The Willows" (Montague Phillips), (b) "The Net-Mender" (Coningsby Clarke).
 9.36 : Duet for two pianos—Victor Arden and Phil Ohman, "Dance of the Paper Dolls" (Tucker) (Zonophone EE166).
 9.39 : Humour—Mr. Albert Davey, "Some Humour" (original).
 9.46 : Tenor—Mr. Seon Brown, "Little Mother" (Rapee).
 9.50 : Instrumental—2YA Salon Orchestra, "Latest Dance Novelties".
 10.0 : "Brunswick" Dance Programme:
 Foxtrot—Jesse Stafford's Orchestra, "Kewpie" (Rose) (4249).
 Foxtrot—Jesse Stafford's Orchestra, "A Precious Little Thing Called Love" (Davis) (4249).
 Foxtrot—Red Nicholls and his Five Pennies, "Roses of Picardy" (Haydn Wood) (4286).
 Waltz—Rosita Renard (piano solo)—"Blue Danube" (Strauss) (4240).
 10.16 : Vocal duet—Frank Luther and Jack Parker, "Carolina Moon" (Davis) (4202).
 Foxtrot—Red Nicholls and his Five Pennies, "Allah's Holiday" (Friml).
 Foxtrot—Gerunovich's Roof Garden Orchestra, "I'm Telling You" (Rose) (4190).
 Foxtrot—Jungle Band, "Paducah" (Redman) (4309).
 10.28 : Soprano—Marie Tiffany, "Little Grey Home in the West" (Willmot).
 Foxtrot—Gerunovich's Roof Garden Orchestra, "I Found You Out When I Found You In" (Ponce) (4190).
 Foxtrot—Royal Creolians, "Third Rail" (De Mars) (7072).
 Vocal duet—Francis Luther and Carson Robinson, "You Can't Take My Memories from Me" (Davis) (42020).
 10.41 : Organ solo—Lew White, "Coquette" (Berlin) (4301).
 Foxtrot—Ray Miller's Orchestra, "No One in the World But You" (Robison) (4194).
 Foxtrot—Brunswick Orchestra, "Dardanella" (Fisher) (4218).
 Waltz—Regent Club Orchestra, "Poor Punchinello" (4206).
 10.50 : Soprano—Marie Tiffany, "Pale Moon" (Indian Love Song) (Logan).
 Foxtrot—Brunswick Orchestra, "Redskin" (4218).
 Waltz—Regent Club Orchestra, "Loneliness" (Pollack) (4206).
 11.0 : Close down.

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

- 3.0 : Afternoon session—selected studio items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by Aunt Pat and Peterkin.
 6.0 : Dinner Session:
 Royal Albert Hall Orchestra, (a) "Song of Morning"; (b) "Song of Night" (Elgar) (D1236).
 'Cello—Gaspar Cassado, "Menuett" (Haydn) (03595).
 6.11 : Tacet.
 6.15 : Selection—La Scala Orchestra, "Song of the Nightingale" (Napravnik).
 Instrumental trio—Kreisler, Kreisler and Raucheisen, "Arlesienne—Intermezzo" (Bizet) (DB1166).
 Sheffield Orpheus Male Choir, "Hymn Before Action" (Kipling-Walford Davies) (Regal G30008).
 6.27 : Tacet.
 6.30 : Halle Orchestra, "Rosamunde Ballet Music" (Schubert): 1. Andantino, 2. Allegro Moderato, 3. Andante un poco assai (04200).
 'Cello—Gaspar Cassado, "Chanson Villageoise" No. 2 (Popper).
 6.41 : Tacet.
 Instrumental trio—Kreisler, Kreisler and Raucheisen, "Sanctissima" (Corelli) (DB1166).
 Columbia Symphony Orchestra, "The Flatterer" (Chaminade) (01371).
 Sheffield Orpheus Orchestra, "The Long Day Closes" (Chorley).
 6.57 : Tacet.
 7.0 : News session.
 7.30 : Sports results to hand.
 8.0 : Chimes.
 8.1 : Broadcast of Carolina Bay Carnival on relay from Timaru
 "Brunswick" Dance Programme:
 Waltz—Regent Club Orchestra, "Marie" (Berlin) (4257).
 Foxtrot—Hotel Roosevelt Orchestra, "I Kiss Your Hand, Madame" (Lewis) (4315).
 Waltz—Regent Club Orchestra, "Where is the Song of Songs For Me?" (Berlin) (4257).
 Foxtrot—Hotel Roosevelt Orchestra, "I've Got a Feeling I'm Falling" (Rose) (4315).
 Baritone—John Thomas, "Rolling Down to Rio" (Kipling-German).
 Foxtrot—Gerunovich's Roof Garden Orchestra, "That's the Good Old Sunny South" (Ager) (4277).
 Foxtrot—Hotel Roosevelt Orchestra, "I'll Tell the World" (Turk).
 Waltz—Hotel Roosevelt Orchestra, "Sweet Suzanne" (Leslie) (4253).
 Vocal solo—Bob Nolan, "Rose of Mandalay" (Magine) (4248).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Do You Ever Think of Me?" (Burtnett) (4217).
 Foxtrot—Los Angeles Biltmore Hotel Orchestra, "Ploddin' Along" (Caminando) (4217).
 Foxtrot—Colonial Club Orchestra, (a) "Naughty Eyes" (Locke), (b) "Leave Me With a Beautiful Melody" (Spier) (4256).
 Vocal solo—Bob Nolan, "Caressing You" (Faziolo) (4248).
 Foxtrots—Hotel Roosevelt Orchestra, (a) "Mean to Me" (Turk); (b) "My Castle in Spain is a Shack in the Lane" (Caesar) (4274).
 Foxtrots—Clevelanders, (a) "Shout Hallelujah, 'Cause I'm Home" (Dixon), (b) "There's a Place in the Sun for You" (Green) (4255).
 Close down.

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

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 4.25 : Sports results to hand.
 5.0 : Children's session, conducted by Big Brother Bill.
 6.0 : Dinner session—"Parlophone" Hour:
 Selection—Edith Lorand Orchestra, "The Vagabond King" (Friml).
 Waltz—Dajos Bela Orchestra, "The Swallows" (Strauss) (A4010).
 6.12 : Tacet.
 6.15 : Selection—Frank Westfield's Orchestra, "Chu Chin Chow" (Norton).
 Piano and orchestra—Raie da Costa and Orchestra, "When Day is Done" (de Sylva) (A4041).
 Wurlitzer organ—Leslie Harvey, "Absent" (Metcalf) (A2728).
 6.29 : Tacet.
 6.30 : Waltzes—Dajos Bela Orchestra, (a) "Oh, Spring, How Fair Thou Art" Lincke; (b) "Songe d'Amour Apre le Bal" (Czibulka) (E10602).
 Dajos Bela Orchestra, "Humoresque" (Dvorak) (E10559).
 6.42 : Tacet.
 6.45 : Dorsey Brothers' Orchestra, "Was it a Dream?" (Coslow) (A2567).
 Wurlitzer organ—Leslie Harvey, "Until" (Sanderson) (A2728).
 Waltz—Dajos Bela Orchestra, "Faust" (Gounod) (A4010).
 6.55 : Tacet.
 7.0 : News session.
 8.0 : Chimes.
 8.1 : Relay of Caroline Bay (Timaru) Carnival.
 "His Master's Voice" Dance programme:
 Foxtrot—Arcadians Dance Orchestra, "Bluebird, Sing Me a Song" (Davis) (Zonophone 5201).
 Foxtrot—Bert Firman's Dance Orchestra, "'Cause I'm in Love" (Donaldson) (Zonophone EE123).
 Foxtrot—Jack Hylton's Orchestra, "Forty-Seven Ginger-Headed Sailors" (Sarony) (EA448).
 Tenor—Franklyn Baur, "At Dawning" (Cadman) (Zonophone 5204).

- Foxtrot—Bert Firman's Dance Orchestra, "I'm a Broken-Hearted Blackbird" (Fields) (Zonophone EE123).
 Foxtrot All Star Orchestra, "There's a Rainbow 'Round My Shoulder" (Olson) (EA436).
 Waltz—Arcadians Dance Orchestra, "Nicolette" (Eatten) (Zonophone).
 Male chorus—"Over There" Medley (EB33).
 Hawaiian—Hilo Hawaiian Orchestra, (a) "Kawaihau Waltz" (Kealakai); (b) "My Hula Love" (B2799).
 Male voices—Salon Group, "Sonny Boy" (Jolson) (EB35).
 Bass-baritone—Peter Dawson, "Lorraine, Lorraine, Lorraine" (Capel).
 Wurlitzer organ—Jesse Crawford, "A Dream" (Bartlett) (EA488).
 Foxtrot—All-Star Orchestra, "She Didn't Say Yes" (Strong) (EA486).
 Waltz—Waring's Pennsylvanians, "Just Another Night" (Donaldson).
 Male voices—Salon Group, "Jeannine, I Dream of Lilac Time" (Gilbert). (EB35).
 Wurlitzer organ—Jesse Crawford, "Amapolo" (Poppy) (Lacalle).
 Foxtrot—Waring's Pennsylvanians, "I'm Sorry, Sally" (Kahn).
 Waltz—Arcadians Dance Orchestra, "Couldn't You Have Waited?" (Mitchell) (Zonophone 5215).
 Male trio—Melody Three, "Pals, Just Pals" (Dreyer) (Zono. EE133).
 Wurlitzer organ—Reginald Foort, "Just Like a Darby and Joan" (Gilbert). (B2775).
 Foxtrot—Arcadians Dance Orchestra, "Juanita" (Flynn) (Zono.).
 11.0 : Close down.

Sunday, December 29

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

- 3.0 : Afternoon session—Selected gramophone items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 6.0 : Children's session, conducted by Uncle Leo.
 6.55 : Relay of service from Unitarian Church. Preacher: Rev. Wilma L. Constable.
 8.30 : (approx.) Relay from Auckland Town Hall of concert by the Auckland Municipal Band under the conductorship of Mr. Christopher Smith.
 9.45 : (approx.) Close down.

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

- 3.0 : Afternoon session—Selected studio items.
 6.0 : Children's session conducted by Uncle George.
 7.0 : Relay of service from St. Gerard's Redemptorist Church.
 Organ—"The First Nowell" (Westbrooke)
 Rosary with choral responses.
 "Alma Redemptoris" (Richardson).
 Sermon—Rev. Father T. Cahill, C.S.S.R.
 "Adeste Fideles" (Novello).
 "O Salutaris" (Silver).
 "Tantum Ergo" (Neidermeyer).
 "Divine Praises" (Oakes).
 "Adoremus" (Rev. Father Murphy).
 Organ—"Pastores" (Weigand).
 (Organist: Mr. H. Mount. Choirmaster: Mr. Frank J. Oakes.)
 8.15 (approx.) : Studio concert by the Wellington Municipal Tramways Band under the conductorship of Mr. E. Franklin, and assisting artists:
 Hymn—Band, "Nearer, My God, to Thee" (traditional).
 Overture—Band, "Morning, Noon, and Night" (Suppe).
 Mezzo-soprano—Miss Eileen Higgins, "Ave Maria" (Kahn).
 Baritone—Mr. John Prouse, recitative, "I Feel the Deity Within" (Handel), aria, "Arm, Arm, Ye brave" (Handel).
 Selection—Band, "Largo in G" (Handel).
 Contralto—Miss Nora Greene, "O Rest in the Lord" ("Eljah") (Mendelssohn).
 Violin—Yelhy D'Aranyi, (a) "Rondino" (Beethoven-Kreisler), (b) "Bagatelle in D" (Gatty) (Columbia 01622).
 Soprano—Miss Marjorie Skill, of Sydney, (a) "Lo, Here the Gentle Lark" (Bishop) (with flute obligato by Signor A. P. Truda); (b) "Aria—Mignon" (Thomas).
 March—Band, "Ravenswood" (Rimmer).
 Weather report.
 Mezzo-soprano, Miss Eileen Higgins, (a) "Could I" (Tosti); (b) "The Star" (Rogers).
 Instrumental trio—De Groot, Bor, and Calve, (a) "I Zingari" (Leoncavallo), (b) "Mirage" (Coates) (H.M.V. B3028).
 Vocal duet—Walter Glynn and Stuart Robertson, "The Moon Hath Raised Her Lamp Above" (Benedict) (H.M.V. B2979).
 Selection—Band, "Un Ballo in Maschero" (Verdi).
 Contralto—Miss Nora Greene, "Beyond the Dawn" (Sandersen).
 Tenor—Murray Stewart, "Annie Laurie" (Trdtl.) (Parlophone A2857).
 Intermezzo—Band, "The Way to the Heart" (Lincke).
 Soprano—Miss Marjorie Skill, of Sydney, (a) "Mad Scene" ("Lucia di Lammermoor") (Donizetti) (flute obligato by Signor A. P. Truda); (b) "Una Voce Poco Fa" (Rossini).
 Baritone—Mr. John Prouse, (a) "The River of Years" (Marzials), (b) "My Fairest Child" (Alfred Hill).
 March—Band, "B.B. and C.F." (Hume).
 Close down.

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

- 3.0 : Afternoon session—Selected gramophone items.
 5.30 : Children's song service (Children of the Anglican Sunday Schools).
 6.15 : Hymn tunes from studio.
 6.30 : Gramophone recital.
 7.0 : Relay of service from Christchurch Anglican Cathedral.
 8.15 (approx.) : Studio Concert:
 Suite—Philadelphia Symphony Orchestra, "Nutcracker Suite" (Tschai-kowsky): (1) Miniature Overture and March, (2) Dance of the Sugar Plum Fairy, (3) Trepak (H.M.V. D1214).
 8.23 : Contralto—Miss Alice Vinsen, (a) "Creation's Hymn" (Beethoven), (b) "A Summer Night" (Goring Thomas).
 8.29 : Bass—Mr. Finlay Robb, (a) "Peace" (Eric Fogg), (b) "The Heart Worships" (Gustav Holst).
 8.33 : Suite—Philadelphia Symphony Orchestra, "Nutcracker Suite" (Tschai-kowsky): (1) Arab Dance, (2) Chinese Dance, (3) Dance of the Flutes (H.M.V. D1215).
 8.41 : Recital—Mrs. Margaret Williams, "The House by the Side of the Road" (MS.).
 8.45 : Baritone recitative and aria—Mr. Fred. A. Bullock, (a) "Like Death's Grim Shadow" (Wagner), (b) "O Star of Eve" (Wagner).
 8.51 : Suite—Philadelphia Symphony Orchestra, "Nutcracker Suite" (Tschai-kowsky): Waltz of the Flowers (H.M.V. D1216).
 8.59 : Contralto—Miss Alice Vinsen, "Harbour Night Song" (Sanderson).
 9.3 : Bass—Mr. Finlay Robb, "Steal Away" (arr. Paul Robeson).
 9.7 : Piano and cello—Alfred Cortot and Pablo Casals, "The Magic Flute" (Mozart-Beethoven) (H.M.V. DA915).
 9.12 : Recitals—Mrs. Margaret Williams, (a) "The Song of the Sandhills" (Mary Colborne Veel), (b) "Saturday Night" (Mary Colborne Veel).
 9.18 : San Francisco Symphony Orchestra, "Funeral March of a Marionette" (Gounod) (H.M.V. ED5).
 9.22 : Baritone—Mr. Fred. A. Bullock, (a) "Elegie" (Mussenet), (b) "Glow of the Western Sky" (Hulbert).
 9.27 : Choral—Royal Choral Society, "Hallelujah Chorus" ("Messiah"—Handel) (H.M.V. D1108).
 9.30 : Close down.

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

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 5.30 : Children's song service, conducted by Big Brother Bill.
 6.45 : Relay of service from Salvation Army Citadel. Preacher: Captain Chandler.
 7.55 : Weather report.
 8.0 : Studio items.
 8.15 : Relay from Knox Church of organ recital by Mr. C. Roy Spackman:
 "Tannhauser" Selection (arrgd. Pearce).
 "Evensong" (Easthope Martin).
 "Meditation in D Flat" (St. Clair).
 "Serenade" (Herbert, arrgd. for organ by C. Roy Spackman).
 "Visione" (Rheinberger).
 "Raymond" Overture (Thomas—organ transcription by recitalist).
 9.0 : Close down.

A Useful Booklet

All about the Holiday Trains!

Now that everybody has decided *where* they will go for the holidays, the next problem is—How to get there? This is where the free railway holiday booklet will help—it tells you all about the holiday trains for the Christmas and New Year period.

Call for a Free Copy at your nearest Railway Station or City Booking Office—or 'phone or write
for one to be sent to you by first mail.

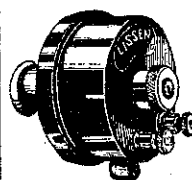
High-Powered American Stations

*Station not reported as heard in New Zealand.

	Metres.	Kilocycles.
KOB—State College, New Mexico—10 kw.	254	1180
KTNT—Muscatine, Iowa (day)—5 kw.	256	1170
*WCAU—Philadelphia, Pennsylvania—10 kw.	256	1170
KEJK—Beverly Hills, California—500 watts	256	1170
KSL—Salt Lake City, Utah—5 kw.	265	1130
KFSG—Los Angeles, California—500 watts	268	1120
KMIC—Inglewood, California—500 watts	268	1120
*WRVA—Richmond, Virginia—5 kw.	270	1110
*KSOO—Sioux Falls, S. Dakota—1 kw.	270	1110
*WLWL—New York City, New York—5 kw.	272	1100
*WPG—Atlantic City, New Jersey—5 kw.	272	1100
KMOX—St. Louis, Montana—5 kw.	275 (2ZM)	1090
*WGBD—Zion, Illinois—5 kw.	277	1080
*WBT—Charlotte, North Carolina—5 kw.	277	1080
*WEAR—Cleveland, Ohio—1 kw.	280	1070
*WBAL—Baltimore, Maryland—10 kw.	283	1060
WJAG—Norfolk, Nebraska—1 kw.	283	1060
KFKB—Milford, Kansas (day)—5 kw.	286	1050
KNX—Los Angeles, California—5 kw.	286 (2ZF)	1050
KTHS—Hot Springs, Arkansas—10 kw.	288	1040
*WKAR—East Lansing, Michigan—100 watts	288	1040
KRLD—Dallas, Texas—10 kw.	288 (4ZB)	1040
*WKBN—Buffalo, New York—1 kw.	288	1040
KYW—Chicago, Illinois—5 kw.	294	1020
WOC—Davenport, Iowa—5 kw.	300	1000
WHO—Des Moines, Iowa—5 kw.	300	1000
KPLA—Los Angeles, California—1 kw.	300	1000
*WBZ—Springfield, Massachusetts—15 kw.	303	990
KJR—Seattle, Washington—5 kw.	309	970
KFWB—Hollywood, California—100 watts	315	950
KMBC—Independence, Missouri—1 kw.	316	950
*KPSN—Pasadena, California—1 kw.	316	950
KGU—Honolulu, Hawaii—500 watts	319	940
WPIW—Hopkinsville, Kentucky—1 kw.	319 (3UZ)	940
KFEL—Denver, Colorado—250 watts	319	940
KOIN—Portland, Oregon—1 kw.	319	940
KFWI—San Francisco, California—500 watts	322	930
WBRC—Birmingham, Alabama—500 watts	322	930
KFWM—Oakland, California—500 watts	322	930
KGBZ—York, Nebraska—500 watts	322	930
KMA—Shenandoah, Iowa—500 watts	322	930
KOMO—Seattle, Washington—1 kw.	326	920
*KPRC—Houston, Texas—1 kw.	330	920
*WWJ—Detroit, Michigan—1 kw.	330	920
*WKY—Oklahoma City, Oklahoma—1 kw.	333	900
KHJ—Los Angeles, California—1 kw.	333	900
*WLBL—Stevens Point, Wisconsin—2 kw.	333	900
*WFLA—Clearwater, Florida—1 kw.	333	900
WSUN—St. Petersburg, Florida—1 kw.	333 (1YA)	900
KFNE—Shenandoah, Iowa—1 kw.	337	890
KGJF—Little Rock, Arkansas—250 watts	337	890
KLX—Oakland, California—500 watts	341	880
WLS—Chicago, Illinois—5 kw.	344	870
WENR—Chicago, Illinois—50 kw.	345 (JOAK)	870
WCFB—Chicago, Illinois—1½ kw.	309	970
WABC—New York City, New York—5 kw.	348	860
KWKH—Kennonwood, Indiana—20 kw.	353 (2BL)	850
*WWL—New Orleans, Louisiana—5 kw.	353	850
*WHDH—Gloucester, Massachusetts—1 kw.	361	830
KOA—Denver, Colorado—12½ kw.	361	830
WHAS—Louisville, Kentucky—5 kw.	366	820
WCCO—Minneapolis, Minneapolis—15 kw.	370	810
WBAP—Fort Worth, Texas—50 kw.	375	800
WFAA—Dallas, Texas—50 kw.	375	800
KGO—Oakland, California—7.5 kw.	380 (JOGK)	790
WGY—Schenectady, New York—50 kw.	380	790
KELW—Burbank, California—500 watts	384	780
KTM—Santa Monica, California—500 watts	384 (4QG)	780
WBBM—Chicago, Illinois—10 kw.	389	770
KFAB—Lincoln, Nebraska—5 kw.	389	770
*WJZ—New York City, New York—30 kw.	394	760
*KVI—Takoma, Washington—1 kw.	395	760
WEW—St. Louis, Missouri—1 kw.	395	760
WJR—Detroit, Michigan—5 kw.	400	750
KMMJ—Clay Centre, Nebraska—1 kw.	405	740
*WSB—Atlanta, Georgia—1 kw.	405	740
WGN—Chicago, Illinois—25 kw.	416	720
KFVD—Culver City, California—250 watts	422	710
WLW—Cincinnati, Ohio—50 kw.	428	700
KPO—San Francisco, California—5 kw.	441 (2FC)	680
*WPTF—Raleigh, North Carolina—1 kw.	441	680

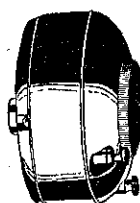
	Metres.	Kilocycles
WMAQ—Chicago, Illinois—5 kw.	447	670
WEAF—New York City, New York—50 kw.	454	660
WSM—Nashville, Tennessee—5 kw.	461	650
KFI—Los Angeles—5 kw.	468 (4YA)	640
KFRU—Columbia, Montana—5 kw.	476	630
KGW—Portland, Oregon—1 kw.	483	620
WDAE—Tampa, Florida—1 kw.	484 (3AR)	620
*WTMJ—Milwaukee, Wisconsin—1 kw.	483	620
KFAD—Phoenix, Arizona—500 watts	484	620
*WDBO—Orlando, Florida—1 kw.	484	620
*WOR—Kansas City, Missouri—1 kw.	491	610
KFRC—San Francisco, California—1 kw.	492	610
*WDAF—Kansas City, Montana—1 kw.	492	610
WTIC—Hartford, Connecticut—250 watts	500	600
KFSD—San Diego, California—1 kw.	500	600
WOW—Omaha, Nebraska—1 kw.	508	590
*WEMC—Merrein Springs, Michigan—1 kw.	508	590
KHQ—Spokane, Washington—1 kw.	508	590
KXA—Seattle, Washington—500 watts	526	570
KMTR—Hollywood, California—500 watts	526	570
*WIBO—Chicago, Illinois—1 kw.	526	570
*WNAX—Yankton, South Dakota—1 kw.	526	570
*WWNC—Ashville, North Carolina—1 kw.	526	570
KFEQ—St. Joseph, Montana—2.5 kw.	535	560
*WOI—Ames, Iowa—3½ kw.	535	560
KLX—Dupont, Colorado—1 kw.	535	560
*WNOX—Knoxville, Tennessee—1 kw.	535	560
*KOAC—Corvallis, Oregon—1 kw.	535	560
WIOD—Miami, Florida—1 kw.	535	560
*WGR—Buffalo, New Jersey—1 kw.	545	550
KTAB—Oakland, California—500 watts	545	550
KSD—St. Louis, Missouri—500 watts	545	550
WAPI—Birmingham, Alabama—5 kw.	263	1140
*WHAM—Washington, New York—5 kw.	260	1150
*WJJD—Moose Heart, Illinois—20 kw.	265	1130

(To be concluded next week.)



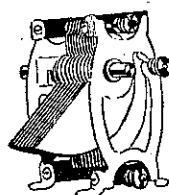
LISSEN LOUD SPEAKER UNIT.
For building any style of loud speaker.

Price 17/6 each



LISSEN SUPER LOUD SPEAKER UNIT.
Fitted with control for fine adjustment.

Price £21/5/-



LISSEN VARIABLE CONDENSER.
0.0001, 0.0002, 0.0003.

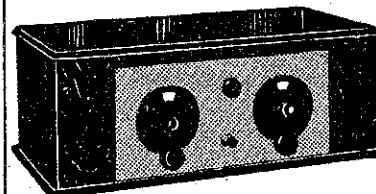
Price 8/- each.

Price 8/6 each.

Price 9/- each.

... They Lead the World ...

Lissen radio parts have a name, famous in radio circles all over the world—a name that stands for better value, better parts, and better radio. So when you're wanting radio parts just ask for Lissen.



Lissen Screen Grid Three

A kit set for long and short-wave reception, with a splendid range and volume. Very compact and easily constructed. Price £6

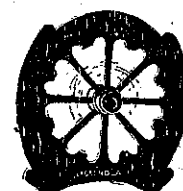
Short-Wave Coils and Accessories Extra.



Your radio dealer can supply Lissen Parts . . . or send direct to

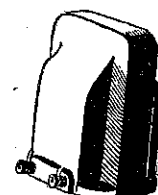
ABEL SMEETON Ltd.

Customs Street East, AUCKLAND.



LISSEN REVOLUTIONISING CONE SPEAKER.
Fills in the missing notes.

Price £21/10/-



LISSEN SUPER TRANSFORMER.
Price £21/5/-

LISSEN L.F. TRANSFORMERS.
Price 12/6



LISSEN ELECTRIC PICKUP.
External and Internal fitting.

Price £21/5/-

Power Transformer Design and Construction

Rules for Calculation

(By "CATHODE")



ISHING to construct a transformer that will supply his needs for some time, and yet simplify the process, a Wellington reader has raised some questions that, in view of their general interest, the writer has expanded into a special article.

The design called for requires windings for the following:

(a) Anode current supply up to 200 milliamps at 400 volts, with tapings at 100 volts, 170 volts, 200 volts, 300 volts, 350 volts, and 400 volts, or as required, with full-wave rectification.

(b) Grid bias up to 100 volts with separate smoothing apparatus.

(c) Windings for full-wave accumulator charger.

(d) Windings for filaments of a.c. valves.

(e) Windings for filaments of rectifying valves.

The first operation in designing a transformer is to calculate the total load, assuming a certain efficiency. We will assume an efficiency of 80 per cent., a figure which should be fairly easily reached.

In order to obtain an anode current supply of 400 volts on load, it is safe to assume that a transformer winding providing at least 500 volts each side of the centre-tap will be called for. Strictly speaking, we should use the "average" current for calculating the power drawn from this winding, but, as no great accuracy is necessary, it will be less confusing to readers if we use the "effective" current. Thus we may say that 200 milliamps at 500 volts must be supplied by this winding, or, in other words, 100 watts.

No power is drawn from the grid-bias winding except such as is expended in the potential-dividing resistance which will be connected across the out-

put of the grid-bias rectifier. Assuming that this resistance has a value of 20,000 ohms (the voltage across it being 100), a current of 5 milliamps will be drawn from the transformer winding. To maintain a voltage of 100 with adequate smoothing apparatus and the load imposed by the resistance will necessitate a transformer winding supplying about 140 volts, or, in the case of a full-wave rectifier, 140 volts each side of the centre-tap. Thus the power drawn from this winding is $.005 \times 140$ equals 0.7 watts—practically negligible. Whether half or full-wave rectification is employed is a matter for individual preference, remembering that a full-wave rectifier has a slight theoretical advantage, in that the variations arising from a partly-smoothed full-wave rectified current for anode supply are to some extent cancelled out by corresponding variations of the same phase and frequency in the bias voltage. The cost of the full-wave rectifier need be little greater, since cheap receiving valves with grid and plate terminals joined are quite adequate as rectifiers for this purpose. If desired, the secondary of a disused audio-frequency transformer may be utilised for a smoothing choke for a bias rectifier, although its life will probably not be long and the voltage drop across it will, by reason of its high resistance, be a trifle excessive;

this could be compensated by making the voltage of the a.c. input to the rectifier rather higher.

The windings for the charger, assuming a full-wave mercury vapour rectifier is used, will comprise two 16-volt anode windings carrying between them 1.3 amps. and a 1.75 volt filament winding carrying 3.5 amps. Power

happens 40 watts. In addition, the filament windings for the rectifying valves will absorb another 40 watts or so.

We are now in a position to ascertain the power rating the transformer must have. Adding the 100 watts for the plate supply, 1 watt or less for bias, 27 watts for charger, 40 watts for receiver filament, and 40 watts for rectifier filaments, a grand total of 208 is arrived at. An efficiency of 80 per cent. was assumed so that it is safe to say that a 250 watt core and primary will be necessary.

Our correspondent is insistent that the windings shall be carried on round bobbins, holding that winding on a square bobbin is too difficult for the amateur. The writer does not altogether agree with this view, since a bobbin to accommodate a square or rectangular core can be readily constructed. Two types are suggested. The one fills the circular space of the former by a series of "steps and stairs," the other by placing a square core in a round former. Both these have serious disadvantages, the former on the ground of difficulty in cutting the iron to the many different sizes required, and the latter on the ground of the probability of introducing too high a leakage reactance and the certainty of making the iron path unnecessarily long. The compromise shown at Fig. 1 is best, the core being s'ap-cut to fill most of the bobbin, yet requiring only three different sizes of strips. The stallo must be bought cut to size, as it cannot be cut with snips. The cross-section of the core shown, which just fits inside a piece of 2½-inch outside diameter formica tubing, is 3.36 square inches, so that, in order that the yokes may fill the requirement of having approximately the same cross-section as the core, the width of the laminations forming them must be 1½ inches.

Calculating the Turns.

WE have a core cross-section of 3.36 inches, of which we can safely assume that 80 per cent. will be iron. Stallo can be worked economically at a flux density of 60,000 lines per square inch, so that the total flux will be $60,000 \times 3.36 \times .8 = 161,280$ lines.

Applying the formula

$$E \times 10^8$$

$$N = \frac{4.44 \times f \times S}{230 \times 10^8}$$

where N is the number of primary turns, E the applied a.c. voltage which will no doubt be the standard 230 volts; f the frequency of the applied a.c., also presumably the standard 50 cycles per second, and S the total flux, it is found that the required number of primary turns is

$$\frac{230 \times 10^8}{4.44 \times 50 \times 161280} = 645 \text{ primary turns}$$

It is suggested that, partly to reduce the magnetising current, partly to simplify the calculation of the secondary turns, the number of primary turns be increased to about 670, which will be equivalent to 2.913 turns per volt. Then, by calculating the secondary windings on the basis of 3 turns per volt, an allowance of about 3 per cent. to compensate for voltage drop due to leakage reactance and resistance of windings will automatically be made.

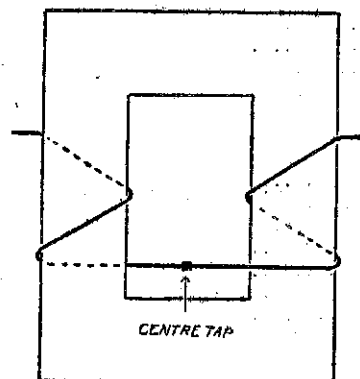
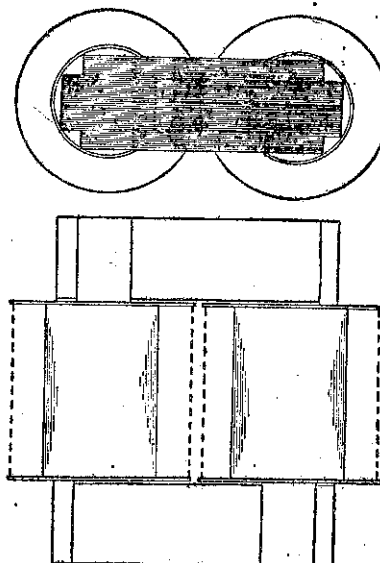


Diagram 1 upper, 2 lower.

drawn from windings will be about 27 watts.

Our correspondent does not specify precisely what filament windings he requires. However, he will no doubt wish to provide for filament windings to feed about four a.c. amplifying valves at either 1.5, 2.5, or 4 volts, and two power amplifying valves at 7.5 volts, the total consumption being per-

You have not seen the latest in Radio Receivers until you have inspected the . . .

PEERLESS

Employing the improved
SCREENED GRID, POWER DETECTOR,
:: PUSH-PULL AMPLIFIER ::

And the Greatest of all Improvements

The Kylectron Speaker

Full details and prices from—

THOS. BALLINGER & CO., LTD.
58-62 VICTORIA STREET, WELLINGTON

DEALERS! Distributors will be appointed in each district. If your district has not already been allotted, ask for details of our distributors' policy—It has special features.

W are now in a position to figure out the various windings and determine what window space will be needed to accommodate them. A current density of 1200 amperes per sq. in. would be sufficient for the primary in view of the high ratio of copper to insulation; this winding, however, has to carry the magnetising or "wattless" current as well as the equivalent of the secondary load, so that it may be well to reduce the current density to 1000 amperes per sq. in. or less. No. 18 S.W.G. has a sectional area of 0.00181 sq. in., and may therefore be relied on to carry 1.81 amperes; apart from the magnetising current, the primary will carry only a little over an ampere, so that this wire is entirely suitable. No. 18 D.C.C. winds 17 turns per inch, so that 670 turns will require 670

sq. in., or 2.32 sq. inches.

172

Each half of the high-voltage winding carries current only half the time, so that the wire may be smaller than would otherwise be the case. Actually 28 S.W.G. proves sufficient, and it is recommended that either double cotton covered or single cotton enamelled wire be used. Even so, for absolute safety it is desirable to put a layer of good paper (varnished when in position) or oiled silk between each two layers of the winding. At 8 turns per volt, the 1000 volts right across the winding will require 3000 turns which, since 28 D.C.C. winds 39 turns to the inch, will take up approximate 2 square inches. The grid bias winding may be of No. 36 D.C.C. and will take up about .25 of a square inch.

The filaments of the rectifier valves, which may be either one or two Marconi or Osram U8 full-wave rectifiers, or two or four UX 281 half-wave rectifiers, may be fed from 22 turns of No. 14 D.C.C., which will take up another .25 of a square inch. The rectifiers for the grid-bias will no doubt be 5-6 volt 201a type valves, and may have their filaments fed from 16 turns of No. 22 D.C.C. or larger wire.

The power-valve filaments will require, if of the 250 or 210 type, 22

wise to allow .5 of a square inch for these windings.

The total cross-sectional area of the windings is, then, $2.32 + 2 + .25 + .25 + .25 + .5$ square inches, or a total of 5.57 square inches. The winding bobbin, the air-space between it and the core, the insulation between windings and the insulation between the layers of the high-voltage windings, if any is used, will all take up space, and a "window" area of 8 square inches will be none too great. Efficient design de-

Ltd., Auckland) is used, there will be needed 160 pieces 5 1/2 in. by 2 in., 268 pieces 4 in. by 1 1/2 in., and 108 pieces 5 1/2 in. by 1 3/16 in., or, if the suppliers object to the odd size, 5 1/2 in. by 1 1/2 in. If 018 Stalloy (handled by National Electrical and Engineer Co., Wellington) is used, there will be required 126 pieces 5 1/2 in. by 2 in., 212 pieces 4 in. by 1 1/2 in., and 86 pieces 5 1/2 in. by 1 3/16 in., or 1 1/2 in. It must not be forgotten, when assembling the core, that the joins in the laminations must be staggered.

The mean length of the iron path is about 19 inches, and since it takes 10 ampere turns per inch to magnetise Stalloy to a flux density of 60,000 lines per square inch, 190 ampere turns will be called for for magnetising the core. The primary turns are 670 in number, so that the magnetising current is

$$\frac{190}{670} = 0.28 \text{ of an ampere.}$$

Fortunately the 18 s.w.g. used in the primary will carry this "wattless" current in addition to the useful current, so that no increase in wire diameter is called for.

The core contains about 16lb. of iron (1 cubic inch weighs 4oz.) and the loss in Stalloy at the flux density mentioned is 0.7 watts per lb. Thus the iron loss will be about 10 watts.

Assuming that the secondaries are to be wound over the primary, the mean primary turn will be about 9 inches. Thus the primary will need nearly 4 lb. of No. 18 d.c.c., which will have a resistance of 2.2 ohms. The copper or 12 R loss in this winding will be, assuming the primary current to be

A POWER PACK FOR "250" VALVES

FINE ARTICLE COMMENCES NEXT WEEK

In our next issue "Megohm" will commence a description of a power pack which will deliver 450 volts and ample current for six or seven valves. This power pack has been so described that almost everything can be built by the home constructor. This will be a special issue—do not miss it!

turns of No. 14 D.C.C. taking up .25 of a square inch. For feeding several a.c. valves in the earlier stages No. 12 D.C.C. will be needed, the number of turns depending on the valves employed; if 4 volt a.c. valves are employed 12 turns will be needed. Some constructors would prefer, perhaps wisely, to make provision for all three types of a.c. valves, so that it will be

mands that the "yokes" should be appreciably shorter than the legs on which the windings are mounted, so that suitable dimensions for the window will be 4 inches by 2 inches.

The Iron Required.

A LITTLE figuring shows that the iron required will be as follows: If .014 stalloy (handled by Johns,

Know More About Radio

"The Radio Listeners' Guide"

will Teach You everything!

HOW IT HELPS YOU

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

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

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

Some of the Sections

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

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

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

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

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

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

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

Signed.....
(Write address clearly).....

Short Wave Reception

Its Present Simplicity

NOT many wireless enthusiasts realise how exceedingly simple long-distance reception upon the higher frequencies is at the present time. Five or six years ago, when short-wave circuits were still in their infancy, and when the components available were not particularly suitable for the work, it was difficult to tune in to any station with a wave-length much below 100 metres.

Body capacity effects were so pronounced that those who were then attracted by short-wave reception were commonly believed to do their coarse tuning by means of extension handles several feet in length and to make their fine adjustments by the simple, if not very restful, process of moving from point to point in the room in which the set was installed.

Matters are very different to-day, due largely to the introduction of the Reinartz circuit, which in one form or another is used in nearly all short-wave sets. In this circuit one set of vanes in both the grid tuning condenser and that which controls reaction is at earth potential. By so arranging the circuit that the low potential vanes are those connected to the spindles of the condensers body capacity effects may be entirely eliminated, at any rate on wave-lengths down to 20 metres. Below this limit the frequencies involved are of such appalling magnitude that body capacity effects are still apt to manifest themselves to some small extent.

These can, however, be got rid of completely simply by setting the tuning condensers some 6in. back from the panel and by using ebonite connectors between their spindles and the tuning dials. There are actually so many fine transmissions above 20 metres that a set without this particular refinement will enable reception over amazing distances to be obtained without any difficulty.

One factor that has contributed enormously to the present-day simplicity of short-wave reception is the introduction of the slow-motion dial, which enables exceedingly fine adjustments of the variable condensers to be made, even by those who have not what may be termed as "wireless hands." For most ordinary purposes dials with a gear ratio of eight to one or 10 to one will be found excellent, but if finer adjustments are desired either geared

condensers or geared dials can be obtained with ratios up to 200 to 1. For reception down to 12 metres it is not necessary to use anything more delicate than an eight to one slow-motion dial.

The receiving set required for short-wave reception is exceedingly simple. It consists of nothing more than a detector valve, with the previously-mentioned circuit, and two stages of audio-frequency amplification, which should be so arranged that one or both can be used at will. This can be done by means of either switches or jacks. It is best to search for stations with the headphones, using only one audio-frequency stage.

In the modern short-wave set there are only two controls that require simultaneous adjustments; the grid tuning condenser of the detector valve, and the reaction condenser. The former having been set at zero, the reading of the latter is gradually increased until a slight rustling noise indicates that the set is in gentle oscillation. The reading of the grid tuning condenser is then slowly raised, the set being kept gently oscillating by moving when necessary the knob of the reaction condenser. As soon as a carrier wave is heard the reaction coupling is loosened and the grid of the detector valve is re-tuned. The most sensitive condition for the set is just below the point of oscillation. On no account should an attempt be made to tune to the silent point between squeals. Once speech or music has been heard signal strength is brought up by small adjustments of both condensers, care being taken to see that the set is not actually oscillating. If the signal is now of good strength, the second audio-frequency valve may be thrown into circuit and a change made from headphones to loudspeaker.

On the short waves one is seldom bothered by heterodyne or Morse interference. Enormous distances can be spanned and reception from most distant countries obtained. At the present time reception on the broadcast band is to some extent discounted by the prevalence of seasonal interference, the short waves offer a fascinating opportunity of receiving broadcast programmes from almost every country in the world.

Tips and Jottings

Stripping Insulated Wires.

WHERE cotton or silk coverings have to be removed so that tappings can be made, the use of a safety razor blade will be found very convenient. The blade should be kept parallel with the wire, or nearly so, to prevent cutting into the conductor. Any fluff which cannot be cut off may be singed off with a match or lighted taper. The covering of very small wires may sometimes be drawn back with the fingers to enable enough wire to be bared to make a joint or other connection. Rubber covering may often be pulled off after a small incision has been made in it, but should this not be possible a slit may be made in the rubber, and the insulation pulled back, when it will be found that the insulation will split easily. This may be continued until enough wire has been bared.

A Substitute for Ebonite.

IT is not generally appreciated by the average wireless experimenter that sulphur is an excellent insulator, rivalled only by porcelain and amber. Among its advantages may be mentioned the fact that it does not absorb moisture from the air. In addition, it can be easily melted and cast in position and takes a good polish. Sulphur should have a much wider application than hitherto, one suggestion being for insulating holes when mounting wireless components on a wooden panel in lieu of ebonite. The main disadvantage of sulphur is that it is not as tough as ebonite.

Defective Grid Leaks.

A GRID leak that varies in value will cause an overlap to appear one day which vanishes again on the next, and will make the set oscillate furiously on one occasion and not at all on another. These are, of course, extreme cases, but a "self-variable" grid leak will be a constant source of trouble. Trouble of this sort will not occur if

care is taken to purchase only reliable makes of grid leaks. Another objectionable effect, also caused by a defective grid leak, is a slight tendency of the set to burst into a "howl" just as it is brought up to the oscillation point. If this occurs it will generally be found that the grid leak value is too high.

Diaphragm Protection.

VERY often, horn-type loudspeakers, big and small alike, give bad tone owing to dirt having collected upon the diaphragm, or to the latter having become rusty. The remedy for this type of trouble is obvious, and it can be prevented from recurring more or less simply by unscrewing the horn portion of the speaker and gluing a piece of thin but tough paper over the stem. For trial purposes only, the paper may be fastened down by means of a tightly-fitting rubber band, but, as a permanent fitting, it is best glued down. This device entirely prevents dust and dirt from settling upon the diaphragm, and, if any slight diminution in the strength of reception is apparent, it can be removed by pricking a few holes with a needle in the paper cover. In most cases, however, no decrease in the reception of strength will be noticed.

A Hand-drill Screwdriver.

FOR rapid screwdriving it is an excellent tip to make a screwdriver attachment to fit one's hand-drill. This can be done from a short length of $\frac{1}{4}$ in. steel rod. One end is filed up or ground into the proper shape for a blade and is subsequently tempered by heating and dipping in oil. Box spanners can also be made in the home workshop to fit the hand-drill. Take a piece of brass or mild steel tube whose internal diameter is such that it will just fit tightly over a nut of the size required. Put a short piece of studding into the nut and insert it into the end of the tube. Now hammer the outside of the tube near the end, shaping it to fit snugly on to the faces of the nut.



SIEMENS

DRY BATTERIES

Sole N.Z. Agents:

Messrs. **CORY-WRIGHT & SALMON**

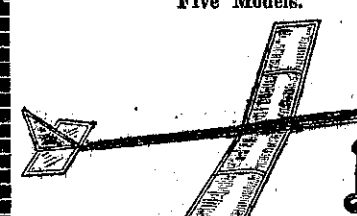
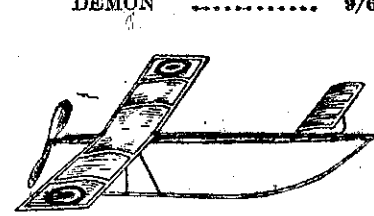
ENGINEERS
P.O. Box 1050, Auckland.
P.O. Box 1230, Wellington.

Southern Cross Model Aeroplanes

NEW STOCK JUST LANDED.

Can be flat packed and posted to any address. No. 0 and Moth, Demon fragile 1/3 extra; Swift, Racer 2/6 extra.

Perfect Flight Guaranteed.	RACER 25/-
Scientifically Constructed.	SWIFT 15/-
Five Models.	DEMON 9/6

MOTH 6/6
No. 0 7/6

To be procured only from

F. J. W. FEAR & CO.,

63 WILLIS STREET, WELLINGTON.

Telephone: 41-446.

American Reception.

MR. MORRISON (Brooklyn) reports having heard on several evenings during the past week a short-wave station on about 54 metres, giving the calls, WBBC, WCGU and W2XBH, Brooklyn, New York. The latest "call book" gives WBBC and WCGU as the same station shared by different broadcasting corporations.

W2XBH appears to be the short-wave transmitter of WCGU, working on a frequency of 5550 kilocycles (54 metres). It is reported to be "on the air" daily from 10 a.m., New Zealand summer time. The tests heard by Mr. Morrison were being carried out after regular broadcasting hours.

Berlin, 45 metres (about), and England, 43 metres (about), have also been heard by Mr. Morrison on duplex telephony at about 7 p.m. our time.

Bandoeng Radio Service, Java.

THE following is an extract from a letter recently received from Java by a correspondent:—"On behalf of this service we have built PLE on 15.74 metres and PLF on 16.8 metres wavelength. The other telephony transmitters are: PMB on 14.5 metres; PLG on 16.88 metres; PLR on 28.8 metres; but mostly PLE and PLF are used. Very occasionally we carry out telephony tests with Manila, Sydney, Bangkok, Paris, Nauen, and San Francisco, but we are unable to send you any information regarding these tests in advance."

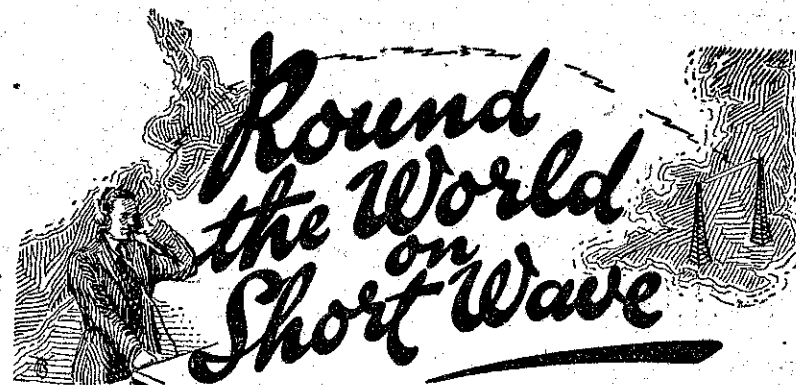
Reception for Week-ending
December 14, 1929.

I HAVE not been able to devote quite as much time as usual to short-wave during the past week and probably have missed something new.

RA97, Siberia, 70 metres, has been well received each evening. On Sunday, what appeared to be concertina, was excellent.

W9XF, Chicago, 49.83 metres, is not audible much before 5 p.m., but rapidly increases to good volume by 6.30 p.m.

W2XAF, Schenectady, N.Y., 31.4 metres: On Sunday this was the only American station worth listening to. Strength at 4 p.m. was on R2, increasing to R8 by 4.30 p.m. and R9 at 5 p.m. Dance music was relayed from the crystal room of the De Witzler Hotel,



THIS page is conducted in the interests of short-wave 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.

Albany, N.Y. This was the only time 2XAF was heard during the week.

PCJ, Holland, 31.4 metres, was R4 at its best on Friday morning, but started at R8 on Saturday morning, at 6 a.m. This volume was maintained till 6.30 a.m., after which it went off rapidly. They were only just audible on Saturday afternoon, being R2-3 at the best at 5.30 p.m.

Zeesen, Germany, 31.38 metres, has, like PCJ, gone off badly in volume. Monday, at 6 a.m., they were R4 till 6 a.m., after which strength declined rapidly. On Wednesday morning they were relaying the station reported a week or two ago, which uses a gong for identification. Volume was R4-5 at 6 a.m.

7LO, Nairobi, 31 metres, again has been weak each morning. On Wednesday, although only R3, every word was readable just after 6 a.m., when a "Columbia Record concert concluded

VK2ME, Sydney, 28.5 metres, are to be heard almost every morning and evening testing with GBX, England, 27.5 metres (about).

On Monday the latter station was heard on about 15.6 metres at 10.20 p.m. calling Sydney, and reading extracts from a newspaper. Strength R4, very clear and steady. 2ME was not heard, but a strong carrier on 15.5 metres (the wave used by Sydney) was audible.

KZRM, Manila, 26 metres (about), has not been quite as strong when open-

ing at 10 p.m., but reaches good volume by 10.30 p.m.

On Monday they were R8 till 8.55 p.m. with a studio programme. Market reports, etc., followed till 9.3 p.m., when they signed off for the day with "John Harris, announcing—good afternoon."

DHC, Nauen, Germany, 26.2 metres: This station was heard on Monday morning with music and talk, but was too weak to hear the call. Wednesday morning was better. At 6.10 a.m., "Allo, here is Nauen — metres, etc.," followed by "Achtung — Nauen," etc. "Atlantic and London" was heard during a talk.

Musical items with short announcements were received at R4-5.

G5SW, Chelmsford, 25.53 metres, has been even weaker this week, being at R3 at its best at 7 a.m., while on Tuesday and Thursday not even a carrier was audible at 7 a.m.

KDKA, Pittsburgh, 25.4 metres.—On Saturday and Sunday they were very weak till the last hour, when reception improved, but only to fair 'phone strength.

W6XX, Oakland, 23.35 metres, was patchy on Sunday, R1-2 at p.m., dying out soon after, but was up to R5 at 4.30 p.m., increasing to R7 at 5 p.m. Morse interference spoilt reception. They were heard again on Tuesday evening, but were very weak.

W2XAD, Schenectady, 19.5 metres, was heard on Friday morning till 6 a.m., when they signed off after announcing that it was an experimental transmission. Volume on closing was R4, being 100 per cent. readable. They were heard again on Saturday morning.

PLE, Bandoeng, Java, 15.74 metres, was heard on Wednesday, Thursday, and Saturday evenings at R8, with records and duplex telephony.

PCK, Kootwijk, 16.3 metres, on Wednesday and Saturday came in well with duplex.

PLG or PLF, Bandoeng, 16.88 metres, with records, came in at R7 on Friday evening.

LP3, Monte Grande, 15.03 metres, was heard on Wednesday evening, calling Nouen and counting. Strength was R5.

DGW, Nauen, 14.83 metres, at 10.20 p.m., Friday, was calling Monte Grande. R6.

Unidentified Stations.

ON 23.4 metres (about), on Monday evening, a weak foreign voice was heard.

20.5 metres (about), on Monday evening, and on Thursday, Friday, and

International Radio

STATISTICS published in U.S.A.

show that there is one receiving set to every three houses over there. This estimate, however, is criticised as presenting an incomplete picture, for it takes no account of the many people who almost live in their motor-cars during the summer and who accordingly keep their radio sets in the car. A summer camper says that, judging by his experience, there are more sets in camps than in the city blocks. Women, it is said, buy between 75 and 80 per cent. of the receiving sets sold in America, and in consequence the outward appearance of the set has become a determining feature of the sale. A set is sold as a piece of furniture rather than as an electrical machine. Cabinets are now designed in Tudor, Jacobean, Italian, Renaissance, and many other "periods," and are made from walnut, Carpathian elm, American gumwood, in addition to the usual oak and mahogany, and sets are often specially made to harmonise with the decorative style of any particular room.

SIR HUBERT WILKINS, famous

explorer, who recently set out on an expedition to the Antarctic, has taken with him a short wave receiving set. The set is particularly designed to pick up the special weekly broadcasts from Westinghouse station, KDKA, to the isolated dwellers of the Arctic and sub-Arctic regions. It is light, compact, and simple to operate, and is designed that it may be readily carried in aeroplanes. Special arrangements have been made whereby the expedition will be kept informed of the events in the outside world, and station KDKA will transmit personal messages, weekly, from friends and relatives to its members free of charge.

Saturday mornings, a foreign noise was heard at about R5 on what appeared to be duplex telephony.

FOR SALE OR EXCHANGE

The rate for small advertisements under this heading is 2/- cash for 20 words and twopence for every other word thereafter.

TWO-VALVE AMPLIFIER, in guaranteed condition, first-class components, £2/10/- less valves. "Brand New," Box 1032, Wellington.

METRODYNE ELECTRIC challenges any Set for distance, selectivity, quality, value. Nine valves, five condensers. Importers, Royds-Howard Co., 553, Colombo Street, Christchurch.

LOWEST priced Radio Gramophone, also Temple Exponential and Magnetic Speakers. Ask your dealer or call Royds-Howard Co., 553 Colombo Street, Christchurch.

STALLOY-TRANSFORMER. — Strips 36 x 1 inches, 2 doz. Other widths proportional. Also supplied cut, punched. Special quantity quotations. Johns, Ltd., P.O. Box 471, Auckland.

Printed and published for the New Zealand Radio Publishing Company at the registered office, Wakefield Street, Wellington, of the Wellington Publishing Company, Ltd., by George Thompson, of 7 Rimu Road, Kelburn, Printer, and Roy Cecil Temple, of Te Kaitiaki, Khandallah, Publisher, Wellington, FRIDAY, DECEMBER 20, 1929.

AT MACK'S RADIO—

YOU CAN BUY A BEAUTIFUL

Precision-made, Damaskene Finish
Steel Cabinet

ALREADY DRILLED, FOR YOUR SHORT-WAVE SET, 2, 3, 4 or 5 VALVES.

PRICES: 25/- and 30/- EACH.

Like Mack's Short-wave Sets, none imported are as good.

NEW ZEALAND-MADE IS MADE FOR YOU—TRY THEM!

Mack's Radio Service

Repairs Our Speciality. Distance No Object.

76 KENT TERRACE, WELLINGTON.

PHONE: 20-798.