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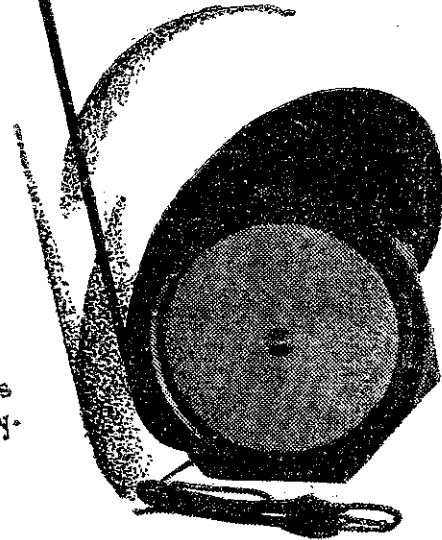
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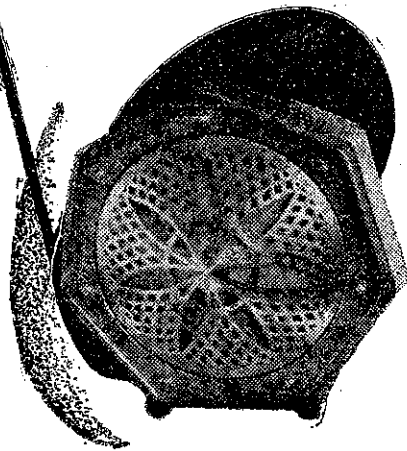
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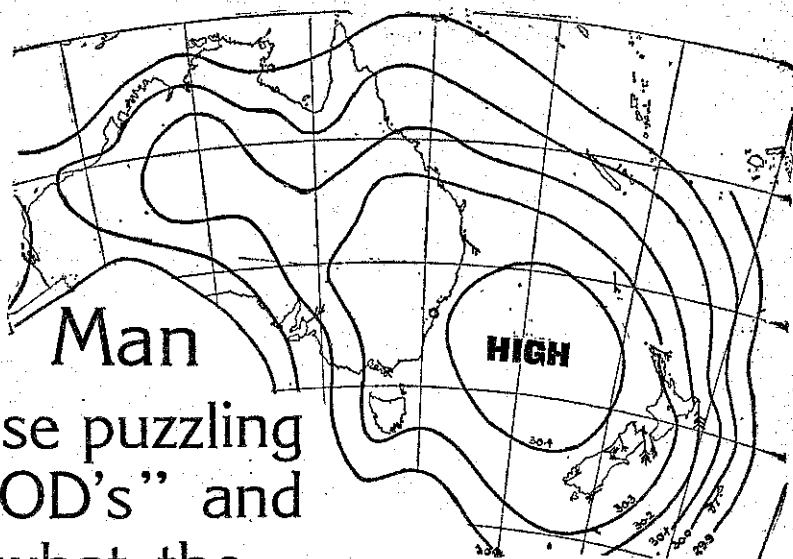


We are still frequently asked the meaning of such terms as "cyclone" and "anticyclone." Even the expressions "districts with a westerly aspect" and "milder temperatures" appear to cause some difficulty, although it seems to us that there should be no ambiguity about them.

It must be confessed that our forecasts are expressed in somewhat stilted and technical language. No doubt some of the stiltedness is due to the fact that after preparing forecasts day-in, day-out, on Sundays, week-days, and holidays, for a number of years in succession, one loses the first freshness of one's interest in the weather as a subject of conversation and is liable to sink into routine modes of expression. But far more important than this is the fact that the number of words we can use is strictly limited. Our reports have to be telegraphed to different parts of the country, and that takes time and costs money. Consequently, in our efforts to try to get the maximum amount of information into the smallest compass, we have to use technical and semi-technical terms and a condensed style. In this respect we are at a disadvantage as compared with the local weather prophets who flourish in some of our cities. These gentlemen have the benefit of our reports, they are able to issue their forecasts some hours later than we, and, with the support of a local paper, are able to spread themselves of a large area of print.

I will try, then to describe some of the more important processes and principles of weather forecasting, and in doing so elucidate a number of technical terms. Weather forecasts are based on a knowledge of conditions in the surrounding air on all sides, and the greater the area over which we know the weather conditions and the greater the detail of our information, the better we are pleased. The reports come to us by telegraph, cable and wireless message. In New Zealand we receive, in addition to local messages, reports from about a dozen places in Australia, from Lord Howe Island in the North Tasman Sea, from Norfolk and Chatham Islands, and from a varying number of ships at sea.

As the reports come in they are written on to maps which are specially prepared for the purpose. The direction and speed of the wind is shown by arrows which, as they are drawn on the map, fly with the wind. The point of the arrow lies in the position on the map cor-



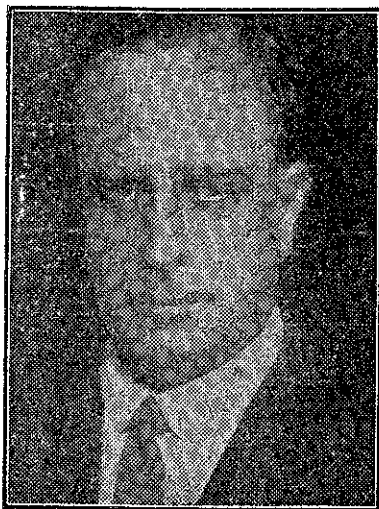
responding to the place from which the report comes. The barometer reading, or air pressure, at sea level, the temperature, and the weather are also shown on the map. The next thing is to draw the isobars, or lines of equal pressure. The isobar for 30.0 inches, for instance, passes through all points at which the pressure is 30.0

inches. On one side of it barometers would read higher than 30.0 inches, and on the other lower. Isobars are drawn for each tenth of an inch.

When they are drawn, it will be found that they do not run haphazardly over the map, but are fairly regular and tend to curve round certain areas on the chart where the pressure is higher or lower than its surroundings. These areas are usually marked "High" or "Low" on the map, and, indeed, some weather services speak of them as "Highs" and "Lows." In describing and defining isobars, they are often compared with contour lines, or lines of equal height on an ordinary map. According to this analogy an area of high pressure would correspond with a mountain, a mountain, it is true, of huge extent and of gentle slopes. The low pressure area would correspond with a valley or depression in the surrounding country.

An anticyclone is, then, merely one of these pressure mountains, while for the low-pressure areas meteorologists use the same term "depression" as used when referring to low-lying land areas.

Now, a very pronounced feature of the average condition of the atmosphere in the Southern Hemisphere is a continuous ridge of high-pressure surrounding the globe in sub-tropical latitudes, with a corresponding valley or trough of low pressure in the sixties of latitude, or just north of the Antarctic Circle. There is thus a downward slope of pressure over New Zealand from north to south. This slope is not a uniform slope, however, but is seamed with valleys or broken by basins of low pressure. The valleys open to the south into the great trough in sub-Antarctic regions and are widest at their southern ends. The isobars consequently take the shape on the map of inverted V's. Depressions of this kind are, therefore, sometimes called V-depressions. (Continued on page 2.)



—S. P. Andrew, photo

This is what DOCTOR KIDSON told 2YA Listeners

(Continued from page 1.)

The basins are what we call "cyclones." They are shown on the weather chart by a series of isobars surrounding a centre of low pressure. It is worth while distinguishing between the valley and the basin, the V-depression and the cyclone, that is, because they have very different types of weather associated with them.

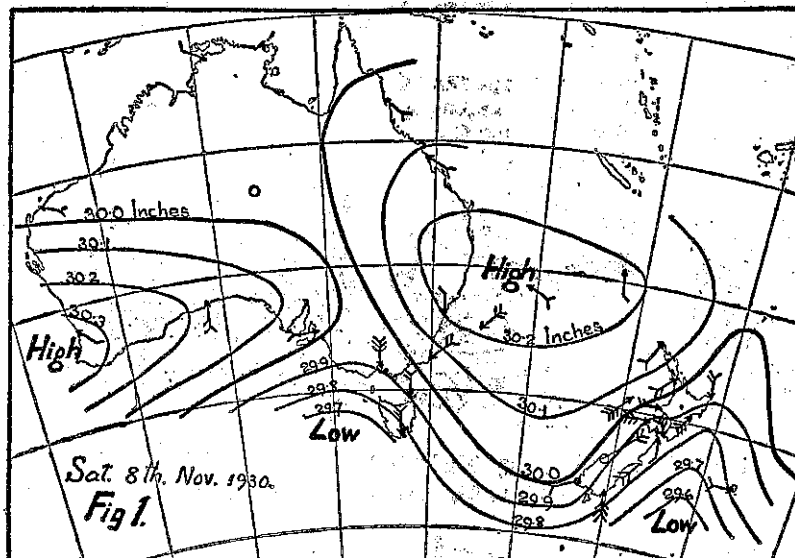
But our pressure hills, basins, and valleys differ from the corresponding land features in one important characteristic, that of movement. It is true that there is a scriptural reference to "valleys being exalted, and hills being laid low"; but in spite of recent experiences in connection with the Murchison earthquake, the process is usually a slow one. I did once read a story of a vessel which, in order to avoid the hazards of the sea, took to the land, but had the misfortune to strike a land-storm, in which the mountains heaved and sank, and rocks came aboard in quantities. The authenticity of that story has not, however, yet been proved. But there is no doubt that our pressure systems, both anticyclones and depressions, can and do move with considerable rapidity. The average speed, in fact, is something like 600 miles a day. At this time of year it is more than that, which accounts for the rapidity of the weather changes. Three of these V-depressions have passed us this week.

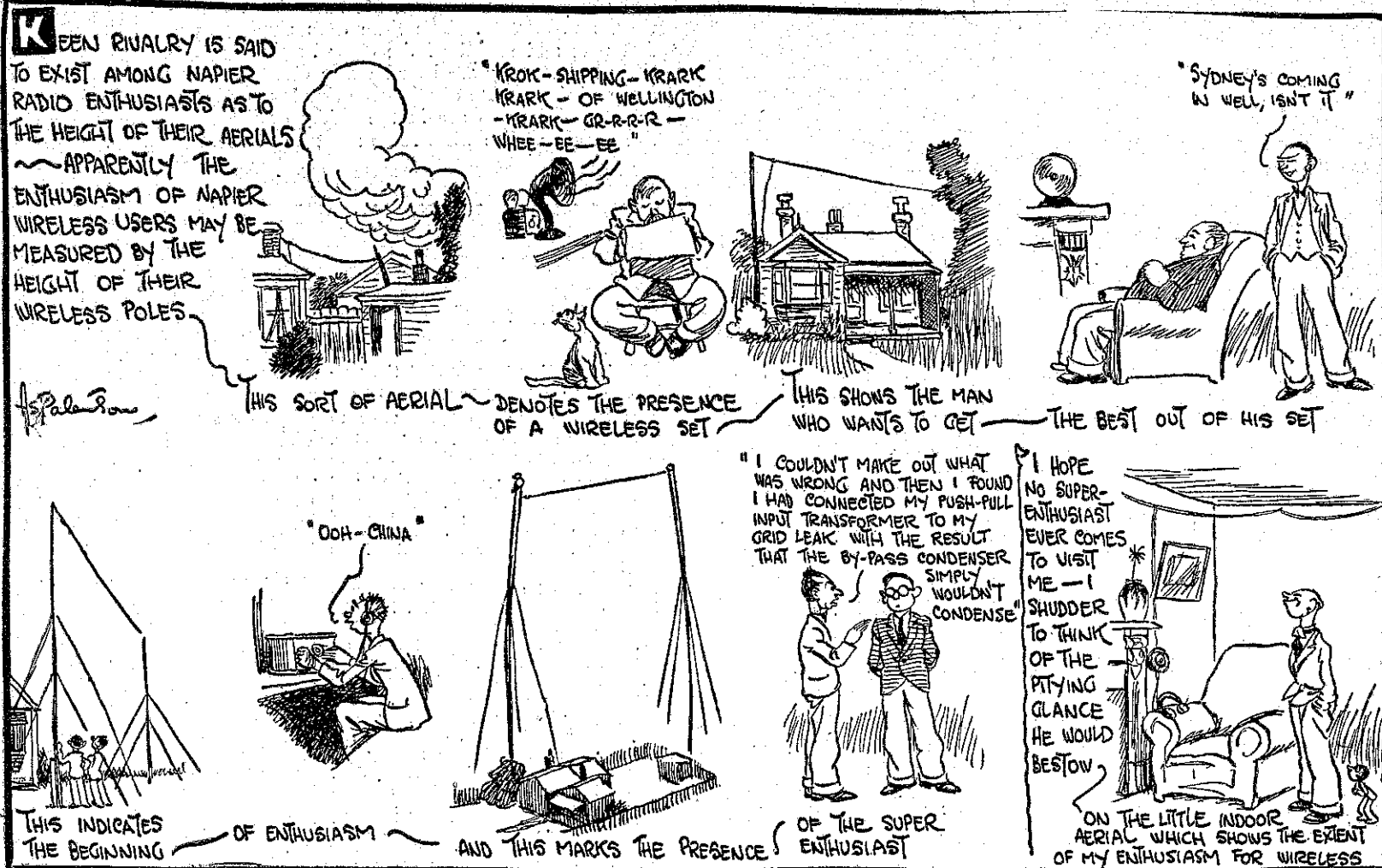
There is, however, fortunately for the forecaster, one important restriction on the movement of pressure systems, and that is that in these latitudes they are practically always moving from west toward east. It may be from some direction rather north or south of west, or even, in the northern portion of our region, from due north, but never from the east. Since the pressure systems carry their weather with them, a knowledge of the rate of movement from the west naturally allows us to anticipate the weather changes they will bring. The value of this principle to the forecaster is, however, limited, because the rate of movement, especially of the depression, is irregular and the shape and the accompanying weather is constantly changing.

Two Important Principles.

BEFORE going any further, I must explain two other important principles which aid the forecaster. These refer to the relationship between wind and pressure, or, what is the same thing, wind and the isobars. The first, which is often referred to as the "law of storms," is that, if you stand with your back to the wind, you will have low pressure on your right and higher on your left. That is in the Southern Hemisphere; the rule is reversed for the Northern Hemisphere. Using, again, the analogy between pressure and altitude, we may say that instead of flowing down a slope, the air flows across it, with the downward side to the right. As a matter of fact, the flow is not quite directly across the slope, but slightly downhill. In other words, the wind blows nearly parallel to the isobars, crossing them from high toward low pressure at a slight angle.

The other principle is that the steeper the slope, the more rapid will be the flow, or the steeper the pressure gradient the stronger the wind. Where the pressure gradient is steep, the isobars will be close together. Therefore, the closer the isobars the stronger the wind. These two principles account for





—By courtesy, "The Dominion."

AERIALS ARE IMPORTANT

Points people usually forget

Broadcast from 2YA by

Colin W. Smith

HERE is probably no portion of the outfit that enables one to hear broadcast reception that is subject to more comment than the aerial and the earth system. They are vitally important if good reception is to be enjoyed. Nevertheless, they frequently receive very scant attention and it is not unusual for listeners to forget the aerial so long as signals can be received. In fact they will blame everything else possible before ever thinking about it, and it is marvellous how far some folk will go before suspecting that essential part of the outfit. I was rather amused by a story told me by a country acquaintance who had not long installed his set. It went splendidly for a while, then became very weak indeed. They looked over the aerial as they had been told, but could discover nothing amiss so had to call in a dealer. A couple of hours of baffling search ensued without result. The set was even substituted, but no improvement. Then, and not till then, was the aerial properly inspected. Yes, the trouble was there all right—a partial connection between the aerial and the earth where the wires passed under the window. And this is only typical of a dozen other examples I could mention, so the aerial and earth are really important.

I think, before we discuss the practical points in connection with aerials a brief explanation of the function of an aerial should be of interest. In dealing with the transmitting station last week I explained how the aerial and the earth are really two plates of a huge condenser. This applies equally well to the receiving aerial and earth and if those plates are not as big as they should be, are faultily insulated, or are otherwise not efficient, then a good deal is going to be missed.

Between the aerial and the earth is the tuning coil in the aerial circuit of your set and the waves collected by the aerial have to find their way through this before they can get to earth. By offering a high resistance to one set of waves the others cannot find their way to earth and conse-

quently only the one station can be heard.

NOW, we will consider some of the practical points in erecting an aerial. The first is the site. In this most people, particularly the townsfolk who have only a small section and have to erect their aerial wherever there is room, have little choice. Where possible, get it clear of objects that are connected to earth. If the wire must pass over a roof, very close to a down pipe or a tree, the efficiency will be lowered. Hills affect an aerial, for they, and trees, too, for that matter, cast a shadow as it were, over the aerial.

Keep the installation away from power and telephone lines and, if possible, have the aerial at right angles to high voltage electric lines. Many

people are seriously handicapped through being too close to lines and pick up a great deal of noise, but they will find if the aerial is made fairly short and kept at right angles the noise will be minimised.

For the present do not worry about the directional effect. We shall have more to say about that later on. Having now a rough idea where your aerial should be erected, let us consider next the length. This varies according to the type of set used. For receivers using six or more valves 40 to 50 feet is ample. For five valves 60 to 70 feet, four valves 80 to 100 feet, three valves 100 to 120 feet, one valve and crystal 120 to 150 feet. Measurements have shown that after 100 feet the amount of signal pickup in proportion to the increase in length is very small and, except in cases such as crystal sets, where every available impulse must be collected, there is nothing to be gained in having a long aerial. In fact, it is a decided disadvantage with big sets, particularly as regards selectivity. By selectivity I mean the ability of sets to separate one station from another.

THE height is also very important. An aerial should be as high as possible, not necessarily from the ground but from the nearest earthed object. (Concluded on page 27.)

The New Zealand Radio Record

—AND—

Electric Home Journal

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX, 1032, WELLINGTON.

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

WELLINGTON, FRIDAY, NOVEMBER 21, 1930.

THE CHILDREN'S SESSION.

BEFORE us as we write lies a roughly-written postcard addressed to one of our technical departments. But it is not intended for us—it is a simple request for a birthday, written by a hand unused to writing and with a pen that probably had not been used for a long time, for the lines are very scratchy and the angles inked. Right up in one corner is the date, a week back, followed by a name we have never heard of and which we cannot locate on a detailed map. The messages and the little moral for the children are all there, but they are scattered—nevertheless they will be deciphered and the message will go over the air to that little family.

That family group can be imagined. They are probably miles from the nearest neighbour, receive their mail once a week, the children may have to ride several miles to school over rough roads or they may even be too remote to attend school. Cut off from the world, seeing none of the rapidly moving things of the life, the family is pioneering in the remotest of backblocks. And this letter is, no doubt, typical of thousands.

Such families can be pictured before and after the advent of radio. It has changed the whole aspect and now, with the limitations necessarily imposed by economical batteries, that would cause their set to be treated with disdain by those more fortunately situated, that set will be one of the most treasured possessions. Its effect in moulding the minds of the young children is paramount. It is a means of entertaining those young, isolated children whose playmates are those of their own family and the studio children and the aunts and uncles become part of their widened circle of acquaintances. They become veritable playmates and chums. Their bright songs, stories and patter provide the young, active and impressionable mind with some new thought, that they would not otherwise have had.

Then of a different nature though of equal importance is the Sunday song service with its Scripture hunting, special hymns and stories. To those who cannot reach the Sunday schools and have the desire to attend, the radio service does incalculable good. To those little ones who have learned the specially-composed children's hymns

and can join in the songs, the barriers of isolation must be, for the time, non-existent. The little ones singing in the bush home must feel part and parcel of the choir helping in the studio song service. Only last Sunday we heard Uncle George remark from 2YA that in some of the remote districts the Sunday services were used as Sunday schools. We who are in the midst of the bustle and rush of city life cannot realise what radio must be to these pioneers.

"Robin Adair"—An Irish Melody

Brought to Scotland

IT is interesting to note that the melody of "Robin Adair," one of the songs on the Scottish programme to be broadcast from 4YA on Tuesday, November 25, is now claimed to have come from Ireland. According to tradition it was composed by the Irish harper, Carrol O'Daly, in the latter part of the 14th century, and was inspired by a romantic incident of his own life.

O'Daly loved an Ellen O'Cavanagh, of the County of Connaught, but her family looked unfavourably on his suit. When O'Daly returned from an enforced absence, he found that Ellen had been prevailed on by her relatives to promise her hand to another. Filled with despair he sought a solitary spot, and, from a full heart, composed the song "Eileen Aroon"—the melody we know as "Robin Adair." Next day, disguised as a harper, O'Daly appeared at the wedding festivities, and at the request of the bride herself played his newly-composed air.

The song had the desired effect. Recognising in the disguised travelling musician the identity of the harper, Eileen experienced a return of affection for her former lover and eloped with him that night.

Although this melody was printed as an Irish air at least as early as 1729 it subsequently appeared in several 18th century collections of Scotch melodies. It was the custom in olden times for Irish harpers and wandering minstrels to make trips through Scotland in much the same way as an artist tours a foreign country to-day.

The celebrated Irish harper, Dennis O'Hempeny, born in 1695, made a tour of Scotland, in his youth, and played as one of his most popular airs, the melody of "Eileen Aroon." This was taken up and widely circulated by the Highland minstrels, and was published and presented as a Scottish air, to which were eventually fitted the words of "Robin Adair."

N.Z. Hears King's Voice

ALL the YA stations carried out a rebroadcast of the opening of the Indian Round Table Conference at midnight on Wednesday, November 12, New Zealand summer time. The results were generally satisfactory, particularly 1YA and 3YA, where the King's speech was heard with perfect clarity. The rebroadcast in Christchurch was one of the best that has been carried out from the Chelmsford station, 5SW.

A WELL-KNOWN Australian singer, Miss Addie Campbell, has taken up her residence in Christchurch and will give her first radio performance on Monday, November 24. The quality of Miss Campbell's voice has been the subject of much commendation; in fact, she was generally known as "The Bendigo Nightingale." The songs chosen for Monday evening will be: "Ave Maria" (Mascagni), "The Wreath," "God Touched the Rose," and "Three Green Bonnets," a variety which will demonstrate the range of Miss Campbell's extensive repertoire.

Talk with London Wireless Telephone

IF tests upon the Tasman radio telephone prove satisfactory within the next few days it is anticipated that a unique conversation will take place early this week, when the Acting-Prime Minister, Hon. E. A. Ransom will speak from Wellington to the Prime Minister, Rt. Hon. G. W. Forbes, in London. This will be the first official conversation between England and New Zealand, and it will mark an important step in the advance of inter-Imperial communication.

The radio telephone service between London and Sydney has been in operation for some time, and experiments upon the service between Wellington and Sydney have been in progress for several weeks. This section is the one causing the difficulty, but it is anticipated that the service will be ready for commercial operation in the near future. The Director of the Commonwealth Postal Department, Mr. H. P. Brown, recently had several successful experimental talks with Mr. G. McNamara, Secretary of the New Zealand Post and Telegraph Department. It was hoped that the service would have been opened by now, but the tests have been prolonged in view of various difficulties that have been encountered.

There was a proposal that the Minister of Internal Affairs, Hon. P. A. de la Perelle, should speak to the Lord Mayor of Sydney when the New Zealand offices were opened there last Monday, but this proved impossible, so that the conversation between Mr. Ransom and Mr. Forbes will be the first to take place, apart from those conducted by the Commonwealth and Dominion departments.

Numerous complications have to be overcome by the Post and Telegraph Department in conducting a successful service between London and New Zealand. The service between Sydney and London is only working four hours a day, owing to fading trouble. Once the tests have been completed it is not expected there will be much difficulty in maintaining a service between Sydney and Wellington. It is possible there will be a little trouble for a start between Wellington and London, as in the first instance there is a variation in time of 12 hours.

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"Community Sunshine"**Radio Distribution
Appreciated**

IN 1929 and again this year, 1YA broadcast the community singing which took place every Wednesday at the Town Hall. The broadcasts met with widespread appreciation from listeners. The secretary of the Auckland Community Singing Committee, Mr. Wm. Whitehead, now writes to the station manager at 1YA:

"I am desired by my committee to convey to your company their great appreciation of the services rendered by the company in broadcasting the community singing during the season just closed. It will, I feel sure, be gratifying to you to know that the number of letters received by me from listeners has been even greater this year than last, and they all express their delight in being able to listen to the singing. Such phrases as 'Better than a doctor's tonic,' 'Red-letter day of the week,' 'Wouldn't miss it on any account,' may be mentioned as typical and indicative of the pleasure you have given to people even so far away as Collingwood, in the South Island."

Radio Show Records**Big Crowds Visit English
Olympia**

MORE than 30,000 people passed through the turnstiles of Olympia during the first two days of the English Radio Exhibition. An hour before the doors were due to open people were lining up in the rain, and by opening time more than 2000 were in the queue. Women were in the majority.

The sale of radio sets touched a record figure. One firm took more orders on the opening day than during the whole of last year's exhibition. Another did enough business in the first fifteen hours to keep their factory working at full measure for the next six months.

Schedule of PCJ

PHILIPS LAMPS advise that PCJ is now working from: 4.30 to 8.30 a.m. on Thursdays; 6.30 to 8.30 a.m., 10.30 to 11.30 a.m., 12.30 to 3.30 p.m., on Fridays; 11.30 a.m. to 12.30 p.m. every other Friday; 6.30 to 8.30 a.m., 12.30 p.m. to 6.30 p.m., Saturdays.

From 4.30 to 6.30 p.m. on Saturdays the transmission is specially for Australia and New Zealand.

All the above times are New Zealand standard times, and the half-hour daylight saving must be added.

**Advisory Committees Meet
Copyright Problems Discussed****Musical and Dramatic Committee.**

MR. T. W. DENT, representing the Orchestral Society, presided at a meeting of the 3YA Musical and Dramatic Committee on Wednesday, November 5, when there were also present: Mr. W. H. Dixon (Royal Musical Society), Mr. R. J. Loughnan (Male Voice Choir), Dr. F. A'Court (Harmonic Society), Mr. A. F. O'Donoghue (station director), and Mr. C. S. Booth (secretary).

Owing to the inability of 3YA, due to copyright restrictions, to broadcast on relay the Royal Musical Society's performance of "Cavalleria Rusticana," a long discussion on the question of copyright ensued, and keen regret was expressed by the representative of the society, Mr. W. H. Dixon, that the broadcast was not to take place.

Copies of the proposed programme for "Alfred Hill Evening" were handed round and approved. In respect to this programme, Mr. Loughnan remarked that he was the first person to hear "My Fairest Child." He was having a music lesson at Mr. Hill's house the day the composition was made and Mr. Hill played the new piece.

1YA Church Committee.

AT a meeting of the 1YA Church Committee, held on November 11, there were present: Rev. H. M. Smythe (Anglican Church), Rev. W. Walker (Methodist Church), Rev. Geo. Heighway (Congregational Church), Mr. D. Donaldson (Church of Christ), Mr. L. C. Barnes, Station Manager, presided. An apology for absence was received from the Rev. Joseph Kemp (Baptist Church).

The Salvation Army applied to be placed on the rota for regular broadcasting. A broadcast was granted for the fifth Sunday in March and the matter of being placed on the rota will be considered at the annual meeting of the committee in February, when the rota for the next year is drawn up.

It was decided that Christmas Day service be broadcast from St. Matthew's Church. The Presbyterians are to be invited to broadcast their Watch Night Service on New Year's Eve.

2YA Children's Sessions Committee.

THERE were present at the meeting of the 2YA Children's Sessions Advisory Committee, held on Tuesday, November 11: Pastor W. G. Carpenter (Uncle George), Mr. W. E. Howe (Sun-

day Schools' Union), Mr. G. W. Morgan (Radio Children), Miss M. G. Thornton (Training College), Mr. W. A. Andrews (Anglican Boys' Home), Mrs. D. Evans (Children's Organiser) and Mr. J. Davies (Station Director). An apology for absence was received from Mr. Greenberg, and Pastor Carpenter was voted to the chair. An apology was also received from Mrs. Sommerville. Mrs. Evans reported having arranged special programmes for Christmas time.

Mrs. Sommerville forwarded a written report on her impressions, with suggestions, regarding the children's session which she attended the previous evening. As the meeting would be the last prior to Christmas the committee decided to place on record its appreciation of the work of the various uncles and aunts.

2YA Church Committee.

THE 2YA Church Committee met on Tuesday, November 9, there being present: Rev. C. V. Rooke (chairman), Rev. E. N. Goring (Baptist), Rev. R. J. Howie (Presbyterian), Pastor W. G. Carpenter (Church of Christ), and Mr. J. Davies (station director). An apology for absence was received from Mr. Richards. It was decided that the Christmas Watchnight service should be held in St. John's Presbyterian Church.

2YA Musical and Dramatic Committee.

THE 2YA Musical and Dramatic Committee met on November 3, there being present: Mr. W. P. McLachlan (Competitions Society), Mr. J. Carr (Charley's Aunt Club), Mr. L. J. Retallick (Apollo Singers), Mr. H. B. Robb (Orpheus Musical Society), Mr. W. A. Jamieson (Theatrical and Operatic Society), Mr. I. M. Levy ("Radio Record"), Mr. R. Lyon (Savage Club), Mr. H. Hardcastle ("Evening Post"), Mr. Harison Cook, Mr. E. Dawson (Wellington Symphony Orchestra), Mr. J. Ball (Editor-Announcer), Mr. J. Davies (Station Director). Mr. McLachlan was voted to the chair. Apologies for absence were received from Mr. Palliser (chairman) and Messrs. Bennett and Philpotts.

The committee discussed at length the question of copyright, following on the announcement that owing to the restrictions imposed 2YA would not be able to broadcast on relay the Orpheus Society's presentation of "Merrie England." The committee decided to recommend that the society should present a studio entertainment in lieu of this relay.

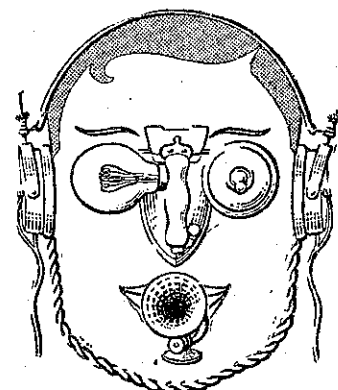
4YA Musical and Dramatic Committee.

IN the absence of Mr. H. P. Desmoulins, Mr. J. G. Butler (representing the Royal Dunedin Male Choir) presided over the meeting of the 4YA Musical and Dramatic Committee on November 6. There were also present: Mr. Max Scherek (Society of Professional Musicians), Mr. Himburg (Dunedin Philharmonic Society), Mr. Angus (Anderson's Bay Glee Club), Mr. P.

S. Anderson (Returned Soldiers' Choir), Mr. H. McFarlane (Dunedin Orchestral Society), Mr. A. Cook (Dunedin Burns Club), Mr. O'Donoghue (of 3YA, Christchurch), Mr. J. Mackenzie (Station Director).

It was reported that the programme for the New Zealand evening was in hand. Reference was made to several successful relays which had taken place since the last meeting of the committee, notably from Oamaru and Balclutha. Reference was also made to the appreciation of the farming talks, particularly the dialogue by Mr. L. W. McCaskill and Mr. R. B. Tennent which were relayed to 3YA. Several special programmes had also been broadcast from the studio.

Regarding coming programmes, Mr. Mackenzie referred to the concert to be given by St. Joseph's Cathedral Choir on November 21, Male Choir concert on November 24, Dunedin Pipe Band on November 25, St. Kilda Band on Sunday, November 30, "A Modern Social Evening in a Country Barn" on December 1, and "Messiah" by the Choral Society on December 2.



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Radio in China

No Definite System

WIRELESS in China from the present Government's point of view is not a thing of the moment, interest being concentrated on war, aeroplanes and road improvements. Local broadcast reception is, apparently, purely a matter of luck, as there does not seem to be any special wavelength for any particular station. One "twiddle" until a station is located and when this is done, Morse or static usually interferes.

Most of the Chinese stations give a purely Chinese programme, but Harbin, in Manchuria, occasionally sends out opera and dance music.

Japanese stations are received and Manila, in the Philippines, usually broadcasts a good dance programme, but here again Morse and static so frequently intervene that the listener gives up in despair.

The broadcasting stations in China are:—Shanghai, Amateurs Home, 50 watt; Nanking, Central Government (the Nationalist Government, Nanking, is the new capital), 500 watt; Hangchow, Provincial Government, 250 watt. Canton, Provincial Government, 1000 watt; Harbin, 1000 watt (Harbin is in Manchuria, but comes under China); Hong Kong, 250 watt.

Perth Police Use Wireless

AFTER some months of preliminary work, the Perth Police Wireless Patrol Service is now in operation, and Perth, by utilising this modern aid in the prevention of crime and preservation of law and order, takes its place among the most up-to-date cities of the world.

In the wireless office is a receiver of most modern design, which picks up signals from the cars. There is also a monitor receiver by means of which, via a loudspeaker, the operator hears his own signals to the car going out as he keys.

The actual transmitter has a nominal rating of two kilowatts, giving any efficient range required by the police authorities under all reasonable operating conditions. It is of the latest type, and full provision has been made for emergency or contingency working.

The cars are said to be capable of doing up to 120 m.p.h. equipped with all the latest gadgets, including a special siren for "clear the line" traffic! Outwardly, there is little to distinguish the cars from other similar cars on the road; the aerial cannot be seen, and the transmitter and receiver can only be found by close inspection through the car windows. The power units are independent and separate from those of the car, and all apparatus is of the latest design and very compactly assembled.

Very satisfactory results are obtained both from the car and the main transmitter—signals from the latter being of such intensity that, notwithstanding the very small aerial pick-up, no difficulty is experienced in reading signals with the earphones laid on the seat and the car going "all out."

Spohr's "Last Judgment"

Successful Broadcast of fine Oratorio from 2YA

THE brief history leading up to the performance (on Manday of last week) of Spohr's famous oratorio is well worth recording for its interest alone.

Many months ago a roundabout appeal came from the mission hospital at Fauabu, in North Malaita. In this out-of-the-way corner of the East Indies is a British mission station working among the bush people—those little folk known as "head-hunters." This small colony of Christian workers, cut off from the world and the many comforts of civilisation, are carrying

more churches—the performance to be a sacred concert. Mr. W. A. Gatheridge, a well-known Wellington musician, was asked to co-operate, and it was decided to form a massed choir from the various Anglican churches in the diocese, and give a performance of Spohr's oratorio, "The Last Judgment." The work was put in rehearsal almost immediately, with a choir of nearly one hundred voices. The choir and conductor were full of enthusiasm and ability, and at long last, on October 21, a performance was given in St. Thomas's Church, Newtown. A week later it was repeated in St. Peter's Church, Willis Street, and both occasions resulted in a substantial swelling of the mission fund.

On November 10 a studio presentation was given from 2YA, and so the fund was further augmented. It is pleasing to know that this solid concerted effort has not been in vain, and to be able to congratulate Mr. Gatheridge and his massed choir, not only on the brilliant and musicianly

performances they gave, but also on the fact that by their individual and collective effort the Fauabu Mission Hospital will be able to continue its work with at least a few increased amenities of civilisation.

Should any listener in care to add to this fund, donations may be sent to the conductor, Mr. W. A. Gatheridge, care of Station 2YA, Wellington. Even the smallest amounts will be warmly welcomed.

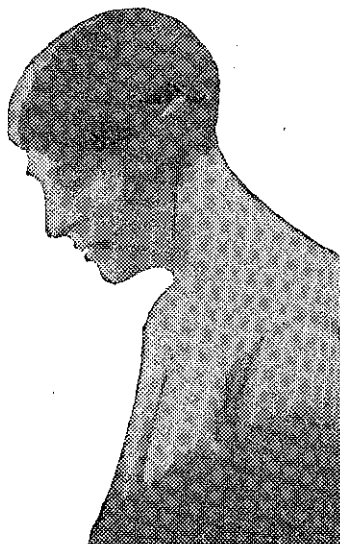
The artists who assisted at the two church performances were: Miss Cristina Ormiston, Mrs. Amy Woodward, Mrs. Wilfred Andrews, Mrs. Ray Kemp, Miss Iris Mason (piano), Messrs. Roy Hill, Ray Kemp, W. Binet Brown, and Mr. C. W. Kerry (organ).

Wavelets

AN ingenious German has declared that when television is perfected it will be possible to obtain sufficient electrical power from the rays of the sun to drive cars.

The Kilowatts "championship" is held by Germany with 535, followed by England with 470, Russia 222, Sweden 120, Czechoslovakia 107, and France 64.

The station Cesky Brod, near Prague, the main station of Czechoslovakia, works on a power of 120 k.w.



GWLADYS EDWARDES,
late of Australia, whose pleasing contralto voice will be heard in classical items from 2YA on Monday.

on a noble tradition of self-sacrifice, fighting tropical diseases, native superstitions, and the ever-present terror of the jungle.

There is no operating theatre in this primitive hospital. The floor is of tree bark; the structure itself is of the flimsiest nature. Every time one moves the entire building is set swaying. And surgical operations are carried out on a table in the men's ward.

In spite of the willing and devoted service of the doctors and nurses who are spending the best part of their lives in the saving of life, conditions are so appalling that the work at times seems hopeless. But they are carrying on in the hope that sooner or later conditions will be improved and that funds will be provided for adequate equipment. It is a case of money to save lives.

And this is the story, a graphic account of which reached some people in New Zealand. The cause was worthy enough in all conscience. The problem was how to raise funds to help.

IT was finally decided that a musical performance be given in one or

Paillard

Electric Gramophone Motors and Pick-ups!

Now, you can build your own Electric Gramophone easily and cheaply with the Paillard Electric Induction Motor and the Paillard Pick-up. The motor is ideal for all amplifying units—simple, reliable, compact. Fitted with the Paillard Electric Automatic Stop.

The Pick-up is one of the finest on the market for clarity of tone, smoothness of control, and appearance.

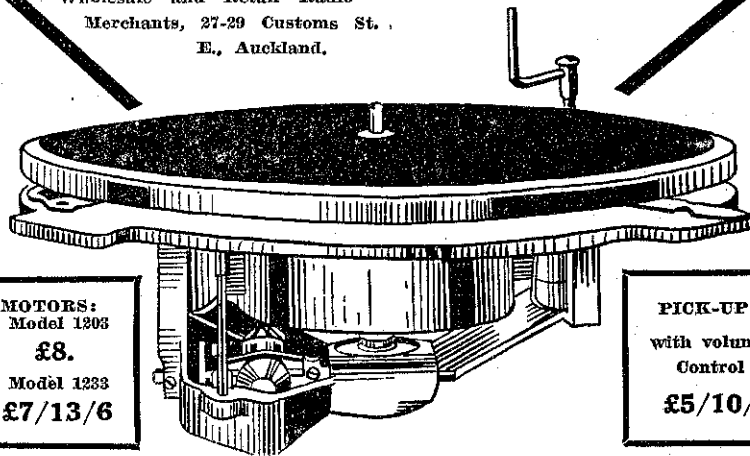
See your Radio Dealer TO-DAY, or write for full particulars of Paillard Electric Gramophone Motors and Pick-ups to:—

N.Z. Distributors:

Abel, Smeeton
LIMITED

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

RADIO DEALERS:
The big demand for "Paillard" makes it a line you must stock. Write for particulars to-day.



MOTORS:
Model 1203
£8.
Model 1233
£7/13/6

PICK-UP
with volume
Control
£5/10/-

NOTES and NEWS from the NORTH

A NEW male quartet is being formed, which promises to provide listeners with some particularly good singing, by Mr. Len Barnes. The members are Mr. Philip Mayhew, bass, Mr. Bert Skeels, first tenor, Mr. Frank Campbell, second tenor, and Mr. Arthur Gally, baritone. These are young singers and all have "microphone voices."

AUCKLAND artists and all who have come in contact with Mr. Owen Pritchard, programme organiser at 1YA, will regret to hear that he has been transferred to Wellington, and will be leaving to take up his duties in the capital city on December 1. Mr. Pritchard has occupied his position at 1YA for a year, and during that time has earned a thoroughly deserved popularity. He has frequently been heard on the air, and is a versatile and accomplished artist, who should be a great asset to 2YA. Listeners, artists, and studio staff will join in wishing him the best of good luck in his new position, and he may rest assured that he will be genuinely missed from 1YA.

AN Auckland radio dealer who is agent for a well-known all-wave receiver, has made a most effective advertising display by arranging the several hundred DX cards received by Mr. Mark Churton, one of Auckland's best-known amateur transmitters, in his window. This display certainly makes a most favourable case for short-wave listening, and is attracting wide attention from "the man on the street."

A NEW orchestra, to take the place of the one at present conducted by Mr. J. Whitford Waugh, is at present being formed. Mr. Harold Baxter will be the conductor, and other members will include Eric Waters, organ, Dorothea Ryan, piano, Lalla Hemus, cello, Gordon Healy, clarinet, and Mr. H. Dunn, flute and oboe. Rehearsals have commenced and the first broadcast by the new combination is scheduled to take place on December 4.

THE Hamilton "B" class station, 1ZH, is shortly to increase its power from 60 to 110 watts. This little station is very popular among Waikato listeners, and at times puts on some really good programmes.

ARRANGEMENTS have been made for the B class 1ZQ to return to the air again from new headquarters in Karangahape Road, Auckland. The station was formerly located at Mount Albert, and broadcasts were stopped some weeks ago on account of interference with 1YA. Under the new arrangements 1ZQ will provide a programme every night, while in all probability there will be mid-day sessions.

THE programme from 1YA on Wednesday night was made up entirely from items by new artists, and proved an excellent evening's entertainment. The Devonport United Band played very well, and we hope to hear them over the air again. The singing of Miss Sylvia Dobbs, Mr. Philip Mayhew, and Mr. Jack Johnston, proved that in these three new vocalists the station has a decided acquisition.

IN many cases one of the greatest difficulties a broadcasting artist has to contend with is the lack of any visible audience. An artist before the microphone cannot tell how listeners are appreciating his efforts, and receives no encouragement such as clapping. In the case of artists who appear regularly over the air this lack of encouragement often materially decreases the quality of their performances. In England it is usual for there to be a

small audience in the studio, and the effect on the artists is most noticeable. This little audience is made up of listeners who are only too pleased to have an opportunity of seeing some of the inner workings of the station, so

that the scheme is doubly appreciated by both artists and listeners. For a time last year small audiences of about a dozen were often present in the 1YA studio, but for some reason were discontinued. It seems likely that the idea will be put into action again, and it is to be hoped that listeners will be given an opportunity of attending the actual studio presentations.

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

becoming a dressmaker's figure

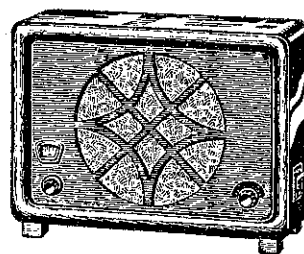


Hated beastly exercise! How I detest athletics! But when you exhibit lovely dresses you must be shapely. So I love dresses and I envy happy married ladies who waddle . . . and . . . I exercise.

Now that I have bought my Blue Spot Radio Set I turn on the music and keep time to the tunes.

The notes are clear and make my exercises rather pleasant rhythm.

Do I look well? . . . it is nice of you to say so . . . No, I will never be quite so beautiful as the music from my Blue Spot Radio. You . . . should get one.



A District Receiver to switch on, tune in easily for . . . £17/10/-

Good aerials, well situated, will bring in distant stations.

Licensed Radio Agents sell the Blue Spot Radio Sets.

FACTORY REPRESENTATIVES:

SCOTT & HOLLADAY Ltd.
CIVIC CHAMBERS, WELLINGTON.

The New Models

SUMMARY OF IMPROVEMENTS REVEALED IN NEW RECEIVERS NOW ON THE AMERICAN MARKET.
MOST OF THESE FEATURES WILL BE INCORPORATED INTO NEXT SEASON'S MODELS.

AUTOMATIC mechanism changes the records on radio-gramophone combinations.

Home recording attachments enable listeners to make records of favourite programmes or voices.

Automatic volume control minimises the annoyance caused by fading.

Tone control knob enables listeners to regulate or shade the reproduction from bass to treble to please the ear.

Improved, full-range superheterodyne is equipped with screen-grid valves rated three times as selective, four times as sensitive as former models.

More life-like tonal reproduction is obtained from the latest dynamic loudspeakers.

New all-electric midget sets are of mantle-clock design, complete with loud-speakers.

Quick-heater and humless valves speed the receiver into action when first turned on.

Decorative cabinets are designed to harmonise with the furnishings.

Perfected employment of the screen-grid valve is all-popular this year, with three or four used in each set.

Wellington Distributors:

ELECTRIC LAMP HOUSE LTD.
MANNERS ST., WELLINGTON.

Our Mailbag

Jazz Week.

I WISH to thank all correspondents who have supported me in the week of jazz. In the meantime, I wish to thank the R.B. Company for the extra popular nights, and dance music promised. I also think the Maori Quartet last Tuesday night the best yet that has been broadcast (let's have more of this). The increase of popular music promised shows that our seed has fallen on fruitful soil, if we further advocate this popular week it must come sooner or later. Mr. Ellis suggests that a simple twist of the dial will get us what we want, but we can't all get ABC, YANK, USA; a lot of us only get power noises, on the low wave-lengths. So let's keep plodding away for this object; we won't get it now before we have paid our first 7/6 dole, but if we get it in December it will cheer us up for Christmas. I wonder if the Government will be popular or classical.—Fifty-fifty (Eltham).

Church Broadcasts.

ARE the churches of this city supposed to be relayed in any orthodox way? If so, can you account for the non-inclusion of St. Andrew's twice in the rounds this year. In the early part of the year this church service was missed, resulting in the fact that services from it were relayed as far apart as March 16 and June 17. Lately the church was again neglected to broadcast the anniversary of Taranaki Street Methodist, resulting in the fact that the last relay was August 17. Quite a few people whom I have talked to are very disappointed about this. They are all agreed that St. Andrew's is one of the most enjoyable of services. If you have no control of the service relays, could you, by means of your paper, bring this to the notice of such persons who have. It is a great pity that a service which combines such bright singing with inspiring sermons from a preacher whose unique voice relays with such clarity, should be missed thus often from the circuit.—"Regular Reader" (Wellington).

[The church broadcasts are arranged by rota, according to the numbers of the population belonging to each church. Ten Presbyterian broadcasts

Children's Sessions

FROM 1YA.

TUESDAY, NOVEMBER 25.—Uncle Dave to the fore with jolly stories, pianoforte duets and solos from Joyce and Lois, and recitations from Isabel.

WEDNESDAY.—Songs from Cousin Jean and cheery stories and jokes from Uncle Tom.

THURSDAY.—A very pleasant hour of music is assured this evening, for the Bayfield Choir will be present, while Peter Pan will be in charge of the story-telling department.

FRIDAY.—Our clever little Cousin Wyn will be present playing solos and piano duos with Thelma, while Nod and Aunt Jean will have lots of fun for the girls and boys to listen to.

SATURDAY.—Hurrah! Hobo has been found after being lost for so long, and will join Cinderella amusing the Radio Family for an hour.

SUNDAY.—Children's song service conducted by Uncle Bert, assisted by the Beresford Street Sunday School.

are allowed from Wellington, and these must be divided between St. John's and St. Andrew's. Last month St. John's missed through unavoidable circumstances.—Ed.]

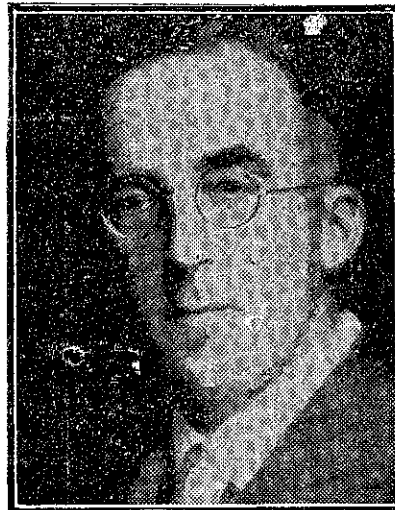
OUR occasional correspondent "Senex," writes as follows from the Lower Hutt:—"All 2YA listeners have a very soft spot in their heart for our 'Mr. Announcer,' and we resent anything that causes him pain, or drives from his voice that cheerful optimistic cadence which is our delight. But for a long while past a note of sadness is nightly heard when he is distributing over the air, those cryptogrammic and cabalistic words, symbols and figures from all places in the Southern Hemisphere, which are supposed to tell us what the weather was, is, and is going to be, in every direction. Always does he open with a cheery cadence in his voice, but no sooner has he got a fair start than invariably he meets a check, and, referring to Norfolk Island, his cheerfulness vanishes, and in dolorous tones he has to announce 'no temperature given.' Though the words are absent, we all feel that he fain would say 'Alack and alas.' We don't like this at all, for it is not until he is revelling among the DQZJ's of Puysegur Point, or 'Arrkaroo' lighthouse, that our trusty and well-beloved friend regains his normal cheerfulness. What hurts our 'Mr. Announcer' hurts us, and lots of us would be willing to join in a 'taurpaulin muster' to buy a thermometer for Norfolk Island, and suggest when this is supplied that the Head Serang of the Weather Department should insist that full information should be daily supplied. Then once more would the news of the degree of heat or cold at this lovely island (of early evil reputation) ring out boldly, cheerfully, and even triumphantly over the evening air, and our 'Mr. Announcer' be happy once more. What about the 'Radio Record' heading the list? It would soon result in 'full house—standing room only.'"

FROM 2YA.

MONDAY, NOVEMBER 24.—In the studio to-night there will be Uncle Jeff, the Kipling Lady, and Cousin Claude with a new Maori legend for all. The musical items will be given by Mrs. Mildred Kenny's mandolin band. Such wee mites they are who play ukuleles, steel guitars, and mandolins.

TUESDAY.—Uncle Toby is bringing "The Fairy Queen" and the Milly-Molly-Mandy Lady to-night, and Jumbo is bringing "The Listening Fairy." Items will be given by children trained by Miss Lottie Rastall.

THURSDAY.—Big Brother Jack and Uncle George are bringing some little pupils of Miss Isobel Halli-



ERIC WATERS.
Station pianist of 1YA.
—S. P. Andrew, photo

gan to-night, and there will be "Creole Dances," "Golden Keys," and stories, songs, and fun.

FRIDAY.—The Story Book Lady, the Story Book Man, and Uncle Jim to-night. Miss Zena Jupp is providing the programme.

SATURDAY.—The Kelburn Training College girls and boys with Aunt Molly as their hostess will entertain to-night.

SUNDAY.—The Kilbirnie Presbyterian Children's Choir will assist Uncle George with the song service to-night. The trip through Palestine will be continued.

AT 3YA.

MONDAY, NOVEMBER 24.—Here we all are again! Cousin Margot, the fairy storyteller; "Gwen," our Minstrel Girl; the Mystery Man, telling stories of the jungle and big game hunting in India (a great favourite with the boys); and Winstone, Evelyn and Frances providing music.

WEDNESDAY.—What is the 5 o'clock tide bringing us in to-night? Uncle John with stories for all, Iris and Eva with songs for all, and some pupils of Miss Gilders with music for all.

Laboratory Jottings

Diamond Valves

FROM Messrs. Royds, Howard, Ltd., Christchurch, we have received samples of Diamond valves for test. These are a good line and equalling the standard in very many respects. Both filament and plate are constructed to withstand overloads, and although we imposed severe strains on them there were no flash overs. This applies to the 280 full wave rectifying valve as well as to the others. Mechanically, construction of the valves appears to be quite rigid, and although they were submitted to rough handling, flaws did not show up. The amplification and internal resistance of these valves is identical with that of the standard valves of the same types. Those submitted us for test were: 224, 245, 280, 227, and 201A. The prices are 226 13/-, 227 18/-, 280 16/6, 245 17/6, 224 27/-.

These can be used quite well in any set taking this type of valve, and there is little doubt that, as far as many combinations are concerned they will be a distinct advantage.

Another Diamond product sent along for test was 4½ volt "C" battery. There is no skimping in this battery. The cells are large and consequently last for a considerable time. The container was well constructed and the finish good, and if this is a sample of the line of Diamond batteries, they can be recommended. Clips are used to attach leads, and not screw terminals, as is usually the case.

A Switch in Time . . .

A SEVERE shock was received by an Auckland lady recently when she attempted to move the loudspeaker of an electric set while the current was turned on. The current was so strong that she was unable to loosen her grip, and she was found writhing on the floor endeavouring to pull herself from the speaker. As soon as the current was switched off she was freed, but in addition to nervous shock she suffered from burned hands. She had been in the habit of moving the speaker from the sitting-room to the bedroom by means of a long insulated wire, and had done so hundreds of times previously without any accident. The set was several years old, and had been converted into an electric one. The moral is obvious.

THURSDAY.—Our "Happy Trio," Ladybird, Uncle Frank and Uncle Dick, with songs, duets, choruses, stories and fun for all who listen in as the clock chimes 5.

FRIDAY.—"Peterkin" and the Boys with a little surprise for all, Billy and Shirley singing and reciting, Nola and Hubert playing, and so we spend a happy bedtime hour.

SATURDAY.—"Aunt Pat" has some little pupils of Miss Fullwood providing some happy items of music and song, and you will hear some more of Dr. Dolittle's adventures. SUNDAY.—The Children's Song Service will be held at the Salvation Army Barrack this evening, and will be conducted by Adjutant Goffin.

Use Our Booking Offices in Advance

S-O-S

TRAVEL IN COMFORT BY
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WELLINGTON — PALMERSTON
NEW PLYMOUTH

—The—

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Have More Than Justified Their Name

They have become a major influence in world affairs; a student brotherhood that knows no boundaries of race or flag. They present, to-day, an educational service as far-reaching as the postal service, and as enduring as Man's desire for knowledge.

Learn how this great Institution can help you by writing to-day to—

The International Correspondence
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1392 WAKEFIELD ST., WELLINGTON

AT last week's general meeting of the Amateur Radio Society of Wellington, owing to waning attendances lately, it was decided that the society go into recess for the summer months. The president, Mr. I. M. Levy, stated that in the event of anything urgent requiring the attention of the society he would consult the executive with the object of calling a general meeting at any time during the recess. A resolution to this effect was carried.

AT last week's meeting of the Wellington society Mr. Hooker gave a most instructive and interesting lecture on A.C. sets, illustrated with black-board diagrams. He demonstrated a thorough knowledge of the intricacies of the modern A.C. circuit, and pointed out the various methods of attaining the results which have made this type of set so successful and popular. At the conclusion of his lecture, Mr. Hooker answered many questions and made clear to all the points in doubt.

THE rebroadcast of the official opening of the Indian Round-Table Conference in the British House of Lords provided station 2YA, Wellington, with a difficult problem. In addition to severe fading there was a fair amount of static which played havoc with the broadcast by the British shortwave station, 6SW, Chelmsford. Further, during the King's address there was bad interference on the land-line between the receiving station and 2YA. A telephone buzzer and other parasitic noises came in on top of the King's voice. This, however, was no fault of 2YA, as the land-lines are under control of the P. and T. Department.

DESPITE the disabilities with which 2YA had to contend on the evening of the rebroadcast of the Indian Round-Table Conference, listeners were able to hear a fair portion of the addresses and could follow their trend. "Switch" has been unable to discover any published report in the daily Press of direct reception by shortwave listeners which gave as much of the speeches as was audible to the writer from 2YA. In no instances were the names of the Indian spokesmen published, yet they were distinctly intelligible from 2YA.

"D.B." (Kelburn) writes: "I am thinking of taking up shortwave listening, but was keenly disappointed with the jerkiness of reception when a

JANETTE ROTARY CONVERTERS

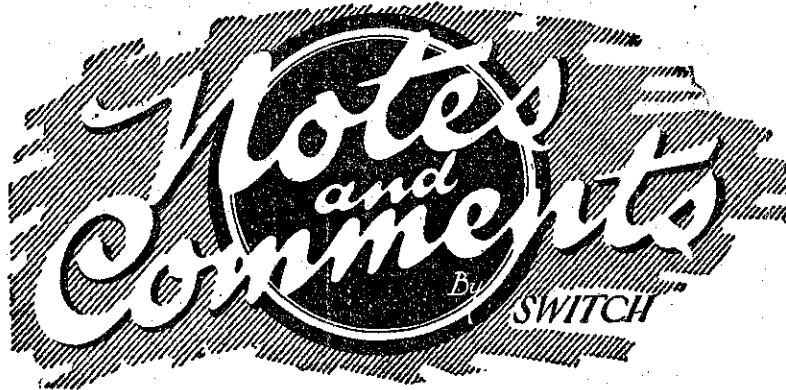
For the Operation of A.C. Electrical Apparatus in D.C. Areas.

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

Send for Descriptive Catalogue.

MOORES

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166 Queen Street, Auckland.
P.O. Box 1029.



friend tuned in an overseas station. He assured me that reception was very steady, but the jerkiness was too apparent to my ear to make me a convert to shortwave reception. Somehow I had led myself to believe that shortwave reception was frequently as steady as reception from our local broadcast station. "Switch" regrets to say that "D.B." is expecting rather too much.

TALKING about "listener's licence" a little while back "Switch" saw in an oversea radio journal a skit on the truthfulness of listeners when re-

Reception Table for Australian Stations

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

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

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

counting their exploits in long-distance reception. It suggested that the threadbare wheeze about "angler's stories" should be called in, and "broadcast listener's boomers" should be substituted. This does not imply that all stories of wonderful long-distance reception are untrue, as remarkable DX achievements are very common in New Zealand, but there are a few listeners who are temperamentally prone to draw the long bow.

RECEPTION of shortwave broadcasts at ranges of several thousands of miles is very seldom free from "gustiness," or what can be more aptly described as accelerated fading. Some time ago a shortwave listener assured the writer that he had listened to an

overseas shortwave broadcast which was received "as steady as a rock." Unfortunately for the said listener, a friend who was present at the listener's house on that occasion, subsequently informed "Switch" that he could not confirm the "steady as a rock" account, but he generously put it down to "poetic license," or, if you like, "listener's license." As a matter of fact, he said, reception was nothing like as clear as the rebroadcast from 2YA on that former occasion.

AS previously mentioned by "Switch," the only solution so far for the problem of overcoming jerkiness in reception of distant short-wave broadcast is the multi-aerial for reception. Three aerials are employed, widely spaced from each other, requiring an area of land beyond the possibilities of city dwellers. When the multi-aerial system is adopted for re-broadcasts short-wave listeners will then realise how steadily short-wave broadcasts can be received under modern methods. The area of land required for the erection of triple aerials, however, is a costly matter.

EVEN in the midday sessions of 3YA, Christchurch, during the recent racing carnival the ubiquitous "howler" has made himself obnoxious in Wellington. As usual, 3YA was coming in with such volume that "Switch" had his control knob only about one-tenth "on," so as not to be overwhelmed, but the "howler" could be heard see-sawing for several minutes on a number of occasions as though searching for 3YA.

STATIC was fierce last week, and Wellington listeners who could listen to the Australian stations on those nights when static was worst must have nerves of steel. As is frequently the case when

static is bad, long-distance stations were loud, but the atmospherics were in the ascendant. The writer has observed that in the majority of instances static is far milder when a southerly breeze is blowing. Other observers have mentioned similar experiences to "Switch."

"SWITCH" notices that the Germans have brought out a new valve with the grid on the outside instead of between filament and plate as is the present practice. The valve is being tried out on a large scale by the German radio industry. It consists of a long, thin, bar-shaped tube, in which

are the plate and filament. The filament is alongside instead of inside the plate. The tube is coated on the outside by spraying, with a conducting layer, which, oddly enough, is the grid. The filaments are thin, and, unlike the present A.C. valves, heat up instantly. Although raw A.C. current is applied to the filaments, there is no hum in the output.

THOSE shortwave listeners who may happen to overhear conversations carried on by the public with the new Wellington-Sydney shortwave radio phone service, should bear in mind that they are bound by the regulations to observe secrecy. Anyone committing a breach of the regulations concerning eavesdropping renders himself liable to prosecution.

"SPORT" (Petone) writes: "While mentioning Mr. Eric Welch, the sporting expert for 3LO, Melbourne, in your notes, I think you should have made reference to the lack of enterprise on the part of the Australian Broadcasting Co. in not relaying Mr. Welch's talk on the Melbourne Cup on the preceding night. Mr. Welch discussed the merits of the horses, and as all Australia was interested in the Cup, it seemed a strange oversight that his talk was not put through to Adelaide, Sydney and Brisbane. Mr. Welch is regarded as an authority on racing matters, and is always interesting."

"SWITCH" is indebted to "Keen Listener" (Dannevirke) for his kind gift of papers. They are much appreciated.

Big Broadcasting Plan

AN enterprising idea has been adopted by the Travel Association of Great Britain and Ireland, in order to induce Americans to spend their holidays in England. This is a series of lectures to be broadcast from 126 radio stations in the United States, extolling the beauties of English scenery and the picturesque customs of the country side, describing the ever-changing pageant of London life, and telling the millions of American radio listeners all about thrilling sporting events, which will take place.

Thanks to the work already done by this association, the number of American visitors to Britain has materially increased, and between April and September they numbered nearly 80,000. There would seem to be a good opportunity for advertising New Zealand in this way. One can imagine a really eloquent lecturer letting himself go on the subject of our thermal wonders, our picturesque Maoris, even our marvellous earthquakes—but perhaps the less said about these the better.

HAVE you renewed your subscription to the—

"Radio Record and Electric Home Journal."

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

Replies in Brief

T.M.T., Masterton.—Te Aro Book Depot, Wellington, for "Amateur Radio Call Book."

Addresses and Addresses
Wanted

P.K.B.—The latest list of American stations does not reveal a station WNR.

XYZ.—JOHK, Sendai; JOCK, Nagoya; JOFK, Hiroshima.

Roma (Kilbirnie).—2GJ has shifted from Feilding, and his address now is: K. L. Elliott, 5 Bosworth Terrace, Wellington. I hold a card from this station, which operates on a power of 45 watts on 80 metres, and 75 watts on 20 and 40 metres.—J.C. (New Plymouth).

Roma, Kilbirnie.—ZL4BU, R. Cook, 61 Sutherland Street, Roslyn, Dunedin.—Dynamic (Lower Hutt).

[Another station required by Roma, 2CH, is operated by B. T. Giles, 175 Owen Street, Wellington.—Ed.]

Stations Identified

The Japanese station a little below 2BL Sydney, and asked for by "N.R." (Greymouth), is JOBK Japan. The one a little below 4QG Brisbane is JOAK Japan.—Amuri (Invercargill).

"Keyo" (Invercargill): 4BK Brisbane is only 1½ degrees above 2HD; you must have heard either 5AD Adelaide or 4BG Brisbane. Ratsam (Hawera): WENR Chicago. Lawrence Hutton (Mercer): American on 1190

kc., KSL, Salt Lake City, Utah. Yankee (Buntroon): 2YA's harmonic; correct call for station on 1090 kc., with Scripture talk, is WMBI Chicago. I have not had a reply from him yet, but I think he broadcasts Seventh Day Adventist services; he says at the close, "The Lord willing, we will be on the air at 10 a.m. to-morrow, when we will broadcast our morning service (that is, Saturday in Chicago). Inquirer (Motueka): 2ZO Palmerston North, is correct; he is testing quite a lot just now, and will be a good station.—J.P.C. (Palmerston North).

J.L.D. (Clyde): Only American station I have received on 360 metres is KOA Denver. Phones (Hastings): I have heard a station between 5CL and JOBK on November 9, broadcasting a church service between 8/30 and 9 p.m. Lawrence Hutton (Mercer): Probably WOAI, San Antonio, 252 metres.—R.J.R. (P.N.).

Identification Wanted

ON Sunday, November 2, at 6.5, New Zealand summer time, on about 49.19 metres, just above W3XAL, no call heard. In English: "I am a Mohammedan," then reference to Omar Khayyam. Foreign speech like RV15,

music of harp order.—Ocec (North Auckland).

What American station that comes on 3ZO? Is it KPQ Seattle, Washington, or KFOX Longbeach, California?—X.Y.Z. (Timaru).

N.R. (Greymouth): JOAK Tokio, 345m., 870kc.; JOHK Sendai, 390m. 770kc. Station on 2ZF Palmerston North frequency will be KNX Los Angeles, California. T.A.L. (Wellington): WBBM Chicago. J.S.: WENR Chicago, below 2BL. I cannot understand you receiving this station above 2BL,

DX Correspondents

WOULD correspondents observe the following courtesies:—

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

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

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

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

5. If possible express frequency in kilocycles and metres.

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

7. A coupon is unnecessary.

as I also listened to their programme.—Squeak (Christchurch).

About 1200kc., 250m., on November 3, at 2.15 a.m., call sounded like 5CX, South Australia. Is there such a station? Station operating on 580kc., 516m., on October 29, at 2 a.m., sounded like a Japanese. American on 2HD Newcastle's wavelength; has half-hourly talks about M.G.M. topics every evening.—J.M.J. (Masterton).

Re the station I inquired about in "Radio Record," November 7, which "J.P.C." (P.N.) said was 2ZO, I think he has made a slight mistake, as six degrees below 2YB does not correspond with 2ZO's frequency. The station in question has the same characteristics as the one "Bob" (Lyal Bay) describes, but with this difference: He varies between 224 metres and 235 metres, and I get him with the kick of a local. This station is located at Gisborne, as he gave his telephone number and location, but no call-sign. My latest are KRLD, KGBM, KDYL.—Jaka (Wellington).

Yankee (New Plymouth): You do not give any particulars so that it would be impossible for anyone to identify your stations. You must give some of the broadcasts.—Ed.

A Melbourne station heard on November 11 (Tuesday), from 11.30 p.m. to 12.5 a.m., good speaker volume, on about 230-240 metres. Heard fox-trot "Riding on a Camel," two Hawaiian numbers, one called "Hawaiian Echoes." Piano solo composed by Schubert, and advertisements for offices to let in Block Court; a number of Melbourne chemists' names, and the final number I heard was John Brown singing "Pagliacci."—D.X. (Dunedin).

DX Topics

Noms de Plume.

IN last week's number a DX'er, by the name of "Yankee" (Dunedin) wrote to the "Record" under my nom-de-plume. I think that it would be better if he changed it, because it may be confusing to DX'ers.—Yankee (New Plymouth).

[You have raised a good point, Yankee. Correspondents should not encroach on others' noms-de-plume, though no doubt in this case it was accidental.—Ed.]

KGW's Frequency?

ON October 25 logged an American on 508 metres (590 kc.). Got the call as KGW. "Radio Call Book" gives the wavelength of KGW as 484 metres (620 kc.). Will some listener who has logged KGW tell me what the wavelength was? Has an American been logged on 508 metres?

I frequently log a Japanese station almost exactly half-way between JOIK and JOBK. Is this JOCK or JODK? I cannot get the third call letter clearly. On what wavelength is KZRM now? Has anyone logged KSTP St. Paul on 205.4 metres (1460 kc.)? On October 9 I logged a station on this frequency, but could not get call letters clearly. Some of the latest additions to my log are:—KGA Spokane (1470 kc.), KGBM Honolulu (1820 kc.), KSL Salt Lake City (1130 kc.), WBAL Baltimore (1060 kc.), KRLD Dallas (1040 kc.), KYW Chicago (1020 kc.), KOIN Portland (940 kc.), KROW Oakland (930 kc.), KOA Denver (830 kc.), WCCO Minneapolis (810 kc.), KTM Santa Monica (780 kc.), KPO San Francisco (680 kc.). Have not noticed anyone reporting reception of WBAL, who is my "farthest East" American, logged on 5th inst.

Have received a verification from 2ZF Palmerston North, 285.5 metres (1050 kc.).—Guy C. Holmes (Masterton).

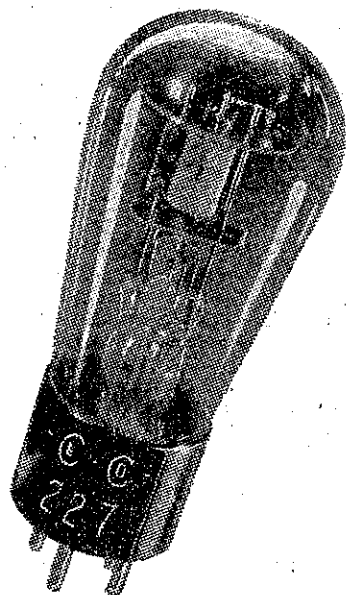
[The latest American list to hand gives the frequency of KGW as 620.—Ed.]

Frequencies of European Stations.

FOR the benefit of the DX'ers who tune-in in the small hours of the morning, I enclose the following particulars of European broadcast stations taken from the "Wireless Magazine," October, 1930:—

372.2 metres, 806kc., Hamburg (Germany), 1.5 kw., Mar. announcer. Opening and interval signals: HA (Morse, 4 dots, dash), also gong and metronome between items. Call: Hier Norag or Hier die Norag sender.

385.1 metres 779kc., Radio, Toulouse (France), 8kw., Mar. announcer only.

MUSIC sounds better
through CeCo VALVES

THE zum-zum of the big bass viol, the shrill treble of the tiny piccolo and the stirring blare of the brass are all blended into a beautiful tone picture by the waves of the conductor's baton. To receive these harmonies in all their original richness of quality and tone—use CeCo Valves.

We give every CeCo Valve 64 tests to make sure that they will bring to your loud speaker the true tones exactly as they are broadcast. Try a complete set of CeCo Valves in your set and hear the difference in clarity, and tone quality immediately.

CeCo Valves have longer life.

CeCo RADIO VALVES

Write to-day for free booklet "S"
Bond & Bond Ltd., P.O. Box 331, Auckland.

G4-QP

Call: ICI, Radio, Toulouse (emissions de la radio phonie du midi). Interval signal: Gong.

431 metres, 696kc., Belgrade (Yugoslavia); 2.5 kw., woman announcer. Call (phon.): Hallo, Radio, Bay-owe-grad. Interval signal: Metronome (one beat per second).

394.2 metres, 761kc., Bucharest (Roumania), 12kw., woman announcer. Call (phon.): at-tent-sec-ooch-aye! Ah-eech, radio, Bou-koo-recht. Interval signal: Metronome.

441.2 metres, 680kc., Rome (Italy); 50kw., woman announcer only. Call (phon.): Ay-yah Radio, Roma, if with Naples: Radio Roma e Napoli. Opening signal: Tuning note. Interval (if relaying Naples): Flute-like notes repeated ad lib.

DX'ers will find further stations in last month's "Wireless World."

Go it, DX'ers! I am after the scalps, too! Listen carefully.—Bob (Lyall Bay).

Information on Unidentified Station.

I NOTICE Keith A. Dixon wishes to know what station it is on 324 metres (780 kc.). I have been in the same boat, but solved the problem this evening, and can vouch for the following: I heard the phone number he mentioned, viz., 65-01. The station's phone number is 1341 Exposition. Two items I can recall are "Singing in the Bath Tub" and "White Mice." At 9 p.m., our time, they signed off, giving their call sign as KTM, Los Angeles, operating on 780 kc. I believe they style themselves the Lyceum Club. Can anyone tell me the power of this station?—Te Ka (Te Kauwhata).

WENR Comes in Well.

I AM using a four-valve set, and have picked up WENR almost each evening during the last three weeks. One item that came through about a week ago, viz., "Spring Time in the Rockies," was very loud; the time each evening is at six o'clock, sun time. I have also picked up WBBM, Chicago, coming through in good volume each evening lately. Have just received a card from WOAI (San Antonio, Texas, 252 metres) to verify my request of July 20 at 5 p.m. WOAI is a station of 50,000 watts full time, and is located 18 miles north of San Antonio at Selma, Texas.—W.B. (Gisborne).

Pronunciation of Names.

A. A. HASSAN (Otakiri, Bay of Plenty) would remind listeners for American and Canadian calls that the letter "Z" is pronounced "Zee" there, and not "Zede."—R.T.R. (Palmerston North).

N.Z. Early Morning Broadcasts.

WHAT New Zealand short-wave station operates in the morning? I received a station on Sunday morning, the 26th, at about 8 a.m. A lady was announcing, and gramophone records were played.—P.K.B. (Oamaru).

KTM, Los Angeles.

I HAVE just received a card verifying my reception of KTM, Los Angeles. I conclude from the card that KTAB, San Francisco, and KGB, San Diego, are controlled by the same concern, namely, Pickwick Broadcasting Corp., Associated Broadcasters Corp. Frequency is given as 780 kilocycles (384.4 metres). J.C.C. (P.N.): Have you written away for verification to LTD yet? I sent a report to them a few weeks ago.—R.J.R. (P.N.).

2ZO, Palmerston North.

THE Palmerston station 2ZO is owned and operated by Mr. J. V. Ingle, 50 Waldgrave Street, P.N. He is also the operator of amateur station ZI2AX. 2ZO, 1050 kc., transmits on Sunday, 11 a.m. to 12.30 p.m. Tuesday 7 p.m.-9 p.m., Saturday, 1 p.m.-3 p.m. on a power of 42 watts input to a TB 2/250 valve. All short-wave listeners will be glad to know that Mr. Ingle is continuing to transmit an 80-metre band on an irregular schedule.

Many DX'ers have contributed to this information.—Ed.]

4BK, Brisbane.

I HAVE received a card from 4BK. Station 4BK, Brisbane, owned and operated by Brisbane Broadcasting Co. Ltd., transmitting on 217 metres (1380 K). Power, 200 watts.—J.M.J. (Masterton).

Broadcasting—an Educational Factor

A TRIBUTE was recently paid to broadcasting by a prominent member of the B.B.C. lecturing staff when it was asserted that nothing has been more striking than the manner in which broadcasting has elevated the tastes of its listeners. Broadcasting has come to be regarded as a stage in adult education tending to take education out of the schools into the homes. Another marked fact has been the increasingly large number who are demanding "highbrow" programmes, but there is still a very large percentage who want everything at once and are satisfied with nothing.



T. WHITFORD WAUGH,

who, with Cyril Towsey, will render instrumental items from 1YA on Sunday evening.

—S. P. Andrew, photo

World-wide Telephony

New Zealand Services

AN important extension of the wireless telephone service between Australia and Great Britain and the Continent of Europe has recently been inaugurated, and telephony services are now available between Australia and all parts of the United States, Cuba, and certain parts of America.

Mr. E. T. Fisk, managing director of Amalgamated Wireless, in an interview, stated that the improvements in radio telephony in recent months had been very great, and the company was now ready to undertake the Australian side of a radio telephony service direct with New York, Berlin, Paris, the Dutch East Indies, or Fiji, as soon as a license was received from the Government permitting this to be done.

Considerable progress has been made with the tests being carried out with the wireless telephone transmitting equipment supplied to the New Zealand Government, and now installed at the Government radio station at Tinakori Hills, Wellington. Several successful conversations have been recently carried out between Australia and Mr. G. McNamara, secretary of the N.Z. Post and Telegraph Department.

A wireless telephone talk which will be unique, has also been arranged between the Prime Minister, the Rt. Hon. G. W. Forbes, in London, and the Acting-Prime Minister, Hon. E. A. Ransom, in Wellington. Both the New Zealand and Commonwealth Postal Departments are working hard to have the service opened at an early date.

YOU CAN STOP IT!

If you smoke you are shortening your life. You can stop it in a very short time. Ask for particulars free. Home Welfare Pty., A.M.P. Buildings, 36 R. Hunter Street, Wellington.

IT'S ON ITS WAY!!

"Radio's Clearest Voice"

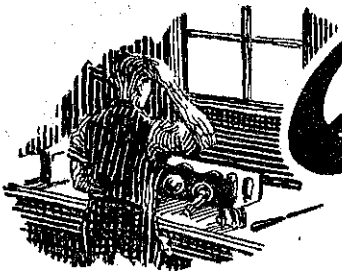
with

Completely Automatic

- - Remote Control - -

*Incorporating revolutionary new developments
never previously made public*

THE GREATEST RADIO IN ALL HISTORY



Questions and Answers



D. X. (Dunedin): Your condenser would be about a .0003 and you can get particulars of the coils you require in the "Radio Listeners' Guide."

2. What size coil would tune from 15 to 45 metres on valve base coils with the above condensers?

A.: As it stands it is unsuitable. Use a series condenser of .003 and follow the directions recently given in the "Radio Record."

3. Is the following a good valve combination: PM14, PM3, PM4DX, PM4?

A.: Try PM4DX and PM3 interchanged, as PM4DX is usually a good detector.

S. W. (Wadestown): The a.c. short-wave adapter from the "Guide" oscillates noisily and I have tried very many expedients.

A.: Change the 227 valve as detector and try the effect of a .00025 condenser in the aerial. Examine the reaction condenser for possible shorts. Your baseboard is quite O.K.

2. Is 160 volts too high?

A.: Yes, you will have to use a resistance to reduce the voltage to about 50.

3. A report says that an a.c. adapter is at the best of times only a 50-50 job. Is this so?

A.: Yes, short-wave adapters of this type are not as good as a d.c. adapter used as an a.c. set. You should, however, be able to get quite a number of stations on this adapter. Note: we do not undertake to reply to questions of this nature by post.

A. B. (Wellington): My condensers appear to be a little too big for short-wave. What capacity do you advise?

A.: .0001 or .00015.

2. When I turn the moving plates of the reaction condenser halfway in or right in the set howls.

A.: You will get much help if you read the inquiries from time to time on short-wave. Reduce the reaction, for it appears there are too many turns on the coil or the detector voltage is too high, hence the second oscillation.

S. O. (Whangarei): I built an a.c. amplifier, but it hums badly.

A.: It appears that your luminations of the power supply are not tight or there is insufficient insulation between the windings. Use a separate winding for the last stage. Use armour filament winding and earth the shielding. In the absence of the actual circuit it is difficult to see what else can be wrong. You should have used a coupon.

MECHANICIAN (Wellington): What number of turns and gauge of wire should be used on the detector coil to match the impedances of a 224 and a 227?

A.: The number of secondary turns can be obtained from the "Guide." Primary for the 227 should be made as is described for the Loftin-White and will require about the same number of turns as specified.

2. Does the choke coil in the enclosed circuit alter the impedance the valves are working into?

A.: You should have stated the inductance of the choke. There is probably very little alteration. In your circuit direct current would still flow to the windings of the speaker.

3. As valves are very rarely balanced, would 30 ohm potentiometers on either side of the choke coil be of any advantage?

A.: It is very rarely that any difference in the valves exists except in theory, unless the valve is actually at fault or defective.

Note.—You should have been able to obtain most of the particulars for which you ask from the book you have taken the description.

INQUIRER (Wellington): Which of the two-stage audio stage combinations, (a) or (b), gives the greatest amplification actual?

A.: (a) Impedance, 50,000 ohms; G.36 MA/V. 72 2 $\frac{1}{2}$ —1 audio transformer to match valve. (b) Valve 6000 ohms, G. 12 $\frac{1}{2}$ MA/V.2. The steeper the slope the better the valve, so the 2MA/V will be a better slope than the .72 MA/V, and therefore (b) is the better combination.

2. Is there any appreciable gain by using a screen grid detector?

A.: Yes, it allows a greater input to the audio amplifier.

A. H. F. (Wellington): I have built the silk diaphragm speaker, and the tone is tinny and the base harsh and weak. The speaker is built according to the specifications except that the diaphragm could not be pulled back as far as specified.

A.: If as you say everything is according to specification, and there is no tension on the reed (this, by the way, is important), we cannot help you. The speaker has been tried many times, and the laboratory model works excellently.

2. Would a 13in. cone give better tone?

A.: If you have had trouble with the silk diaphragm and cannot rectify, the 13in. cone would be your safest investment.

JUMBO (Otago Central): My set of tuning coils will not cover the whole range. Could you redesign them for me?

A.: All the specifications you require were given in the "Record" a little while back.

Note.—Correspondents would help us a great deal if they would only watch the columns before asking us to design coils. From time to time we give specifications which would suit dozens of subsequent inquiries. A little discrepancy in either the condenser, the size of the former, or the wire, would only alter the tuning bands a very little.

2. Are the connections for my output filter correct?

A.: The return from the speaker should go through the condenser to B+ instead of as you have shown it.

M. L. (Hastings): How does a tone control work?

A.: It is a combination of condensers and resistances.

2. One of my push-pull valves takes one amp. more current than the other. Can I use a resistance in the filament to rectify this?

A.: The difference is too little to have any serious effect. Your suggestion will be quite all right.

3. Would I get better low-tone response if I used shunt plate feed?

A.: Probably not, but your idea about connecting the primary and secondary should be quite O.K. You would have to experiment to see which ends give the best results.

A. MATEUR (Dunedin): Can I add regeneration to my present factory-built set?

A.: Yes, but use a .00025 condenser instead of the proposed midget.

A.: Would a super heterodyne short-wave adapter be better than the screen grid set in the 1930 "Guide?"

A.: Theoretically speaking the super heterodyne should be much the better, but probably you would find the short-wave adapter easier.

3. What power valve do you advise in the last stage of the screen grid set?—112A type.

4. Do both condensers in this set have to be double spaced?

A.: It is preferable to have them both spaced.

5. What is the most efficient system of regeneration control for short-wave sets?

A.: Resistance, but there is a considerable amount of variation in the resis-

tances themselves, and one cannot always be sure of getting the best results.

6. Has the a.c. cone dynamic speaker been described yet?

A.: It is some time since "Pentode" has done any work for us, and so the speaker has been held over. We hope to describe it ourselves as soon as our scheme of constructional articles, now settled, has run out.

J. W. F. (Dunedin): Can you give me a circuit for a screen grid valve to be added to a five-valve B.D.?

A.: Use an ordinary transformer coupled circuit, using the aerial coil at present in use, and an interstage trans-

N.Z.'S OWN RADIO BOOKSHOP

The TE ARO BOOK DEPOT, Wellington.

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

JUST ARRIVED—Prices include postage:

"Radio Engineering Principles," by Lauer and Brown, 19/8.

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

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

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

"Radio Trouble Finder," 1/10.

Above published by "Radio News" Co.

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

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

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

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

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

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

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

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

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

Also all leading English, American and Australian wireless magazines.

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

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

"Modern Wireless," 1/7.

"A1 About the All-Electric," 1/7.

"N.Z. Radio Handbook Annual, 1930," 2/9. (contains list of the World's broadcasting stations).

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

7-Valve Super-Het.

6-Valve Neutrodyne.

5-Valve Neutrodyne.

Batteryless Neutrodyne.

Selective Crystal Set. 2-stage Audio.

Simple Wave Trap and Clarifier.

At 2/6 each.

Cockaday Receiver.

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

Tropadyne Superadio.

"Radiando Three."

At 5/- each.

"Building 16ft. Sailing Canoe."

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

TE ARO BOOK DEPOT

64 Courtenay Place, Wellington.

BARGAIN CORNER

SPECIALS FOR THIS WEEK.

1. Polished Ebonite Panels, Black. 24in. x 7in. x 3-16in. **9/6** each

2. 230-Volt Electric Light Flex, 23/0076. **6D. yard.**

3. 2 Light Adaptors (for running 2 lights from one lamp holder, etc.) **3/-** each

4. Cosmos 2-Volt Valves. Either English or UX Base. **2/6** each

5. 7/029 Enamelled Copper Aerial Wire. This line is only for those who really want a good aerial. 100ft. coils, **5/6** each

6. Diehl 230-Volt 50-Cycle Gramophone Motors, complete with turntable. **£5/5/-** each

Order without risk. Money refunded if you are not satisfied.

—THE—

ELECTRIC LAMP HOUSE LTD.

27 MANNERS STREET, WELLINGTON.

former consisting of 77 secondary turns and 25 primary, slot-wound. This coil should be shielded as described in last week's "Record."

2. How many turns should be wound on the primary to suit the impedance of 600?—A.: 11-14.

LOFTY (Dunedin). How many fixed and how many moving vanes of the type indicated are in the .0002 condenser?

A.: Either six of each, or six moving and five fixed.

QUERY (Te Awamutu). My Round the World Two, which has been functioning for the last two months, is now giving trouble. It will oscillate when first turned on, then stop. If the reaction is advanced, it will oscillate again and then stop.

A.: This sounds uncommonly like run-down batteries. Try renewing them.

BEGINNER (Mangaweka): How can I improve the volume of American stations? I have a good aerial.

A.: The reception of American stations very much depends upon your locality. The writer has an excellent set and an excellent aerial-earth installation, but can never get a whisper out of them, while the same set only a couple of miles away brings them in regularly at excellent strength.

2. Would a change-over to the valves recommended by the makers be any improvement when renewing valves?

A.: Yes; it should be a great improvement, especially with a.c. valves.

3. Does the use of enamelled wire give any advantage over the use of tinned wire?

A.: Enamelled wire is better—see the articles on aeriads in this week's issue.

TRIPLE GANG (Mount Eden): My a.c. set violently oscillates. How can I prevent it?

A.: Shunt the bias resistor on your detector valve with a 1mf. condenser, use a 1 mf. condenser instead of a .1 to by-pass the screen-grid voltage. Try the circuit without the pick-up and if this is any improvement take the pick-up into the other side of the detector. The 171's require a separate 5-volt winding, the centre tap of which is taken through a 1000 ohms resistance to earth. We cannot imagine the set working at all in the way you have it connected, as you are giving the 171's only 2.5 volts.

2. On stopping the oscillating, how can I trim up the condensers?

A.: Connect a midget balancing condenser across the first stage condenser.

3. Would a centre tap 2000 ohms 1s. for the push-pull be better than the choke?

A.: No; you should use condensers in series with the voice coil of your speaker, to prevent the flow of d.c. current. Are you quite certain your speaker does not require a 25-1 step-down transformer?

Country Listeners!

We specialize in supplying your wants and precisely what you want at that. Send to us, pay city prices and get the BEST. Remember, you do not have to pay for postage or packing. Goods will be forwarded on rail or through post without charge.

This week's specialties—**VALVES**
PHILIPS. General purpose13/6
 Power valves (medium).....15/-
 Other valves on request.

MULLARD. Prices same as Philips.
RADIOTRON. Strongly recommended for Loftin-White. 224. 27/-;
 245. 17/6; 280. 16/6.

FARRAND Inductor Dynamic Speaker. in cabinet (demonstration model) 25

LOFTIN-WHITE Amplifiers, complete with Radiotron Valves ...212

If there is anything else you want, write us.

Terms: Cash with order. All accessories guaranteed.

C.A.S.

20 Ventnor St., Seatoun, Wellington.

TRANSMISSION (Hawke's Bay): Why should the loudspeaker howl in the hand at least 2in. from the reaction condenser?

A.: Either the detector is microphonic or the set is being worked on the verge of oscillation. Try covering the valve with cottonwool or substituting it.

2. The speaker and the set was made in 1926. Would a first-class loudspeaker help me?

A.: Your set and speaker are certainly out of date. Probably a new speaker would help matters.

3. I pick up a great deal of noise from a transmission line although I have my aerial at right angles.

A.: Try the use of a counterpoise earth, that is, another aerial slung a few feet from the ground and immediately under the ordinary aerial. This is the lead-in and should be treated with as much care as an ordinary lead-in. It is connected to the ground plate.

NOTE: Your query should have been directed to the address given on the coupon.

KAURINUI (North Auckland): A so-called expert attempted to put my set right and after some interference the set was worse than before. He eventually found it was the speaker, but we cannot use the four valves. Both the third and fourth valves are power valves.

A.: This is where the mistake comes in. For the second last valve you should use a A409 (in Philips) and not B406, as directed. The amount of current from the power valve saturates the transformer and causes the roaring you refer to. There may be something else wrong with your set which we cannot tell unless it is inspected, but try this other valve and if it gives you further trouble pack it up carefully and send it to a reliable city radio house.

A. W. (Auckland): My eliminator was left on while the filament current was cut out and the valves now seem paralysed. Do you think they have been damaged?

A.: It is not altogether unlikely. When there is no drain upon an eliminator the voltage rises, frequently to double, because the resistances have now no effect upon the voltage. While it would be difficult to say authoritatively whether your valves are paralysed or not, there is every reason to suspect they are not in first-class order.

2. Would it be advisable to replace all eliminator condensers?

A.: Not without testing them. Connect a pair of phones with 150 volts from your eliminator and connect one side of the condenser to negative. The other side of the condenser is then touched on the free phone tag. There should be a good strong click. Take the phone tag away and then place a piece of wire across the terminals of the condenser. There should be a distinct flash. On replacing the tag from the earphones there should be another click, and if you replace the tag without first shorting the condenser there will be no further clicks. You can test it without phones by merely charging the condenser (placing the + on one side and the - on the other), then removing, say, the +, leaving the condenser for a few minutes and shorting it to get another flash. Absence of this flash would indicate that the condenser is leaking.

3. As a "B" and "C" eliminator my eliminator emits a fearful howl.

A.: Very likely the condenser across the "C" supply has broken down.

4. Would the a.c. neutrodyne in the 1929 "Guide" be suitable for construction?

A.: It is hopelessly out of date. Build the Loftin Four if you want a real good receiver.

5. If I sent you my circuit, would you mark the necessary alterations to convert it to a.c.?—Certainly.

DUCK (Te Kuiti): Could a 90-volt wet "B" battery be charged from a 6-volt generator?

A.: Yes; you must split your "B" battery up into four groups, the individual cells in these four groups must be connected positive to positive, and negative to negative. The positive of one group is then connected to the negative of another group, and there will be a positive and a negative free. These are connected to the six-volts generator.

2. I am obtaining a 50-volt generator. Would it do to charge the "B" battery and 6-volt dry battery?

A.: That depends upon your rate of charge. We would need a little more information before we could tell you what resistances to use, but it could be done.

3. Can I better the valve combination in my 6-valve set?

A.: Use a power valve of the B406 type in the last stage.

DMM (Dunedin):—What are the best valves for my English set for all-round use?

A.: The s.g. and power valve of your present combination are quite good, but your circuit requires one h.f. as detector.

2. I cannot get the same results with one 99-volt battery as with two 45's coupled.

A.: We cannot understand that, unless there is something wrong with your 99-volt battery. Very little drain is taken by your set if it is properly biased.

3. Is a 50ft. aerial, excluding the lead-in sufficient for this set?

A.: It depends upon the height. For a 3-valve set you require at least 100 feet of aerial.

POWER TONE (Dunedin):—I connected the filaments of my two audio valves with 6 volts a.c. Reception is just as good as with the battery, except for a slight hum.

A.: We have heard of that happening although it is very rare. The set is usually most unmanageable when it uses d.c. valves in anything but the last stage.

2. Would a 227 be worth trying in the detector?

A.: Yes, you would not need to balance it.

JUNKBOX (Christchurch): Could .00032 midget condenser be converted into .00025?

A.: Yes, by removing some of the plates.

2. Is a .00025 grid condenser and a 3 megohm grid leak efficient for short-wave work?

A.: The condenser is all right, but use an 8 megohm grid-leak.

3. My valve will not oscillate below 45 volts.

A.: This is quite in order. Different valves operate at different voltages.

4. I can get only one coil to work and even then signals are mushy.

A.: We cannot advise you on this point unless we know something of the design of your set and the coils.

KOIL (Timaru): The specifications you ask for have already been published, but we shall reproduce them in a special table next week. We cannot be continually redesigning coils because correspondents wish to use different gauges of wire.

2. Would it be an advantage to have a midget condenser in series with a .00014 condenser to spread out certain bands?—Yes.

3. What would the value of the condenser be?—.00005.

4. Is a 60ft. aerial too long for short-wave work?—No.

MOKI (Westport): What is the best combination of valve for my battery-operated American set?

A.: Four 221's and one 112. The last should be suitably biased and may be of any make.

H. H. (Akaroa): I have had my set of valves blow out twice. What is the cause of this?

A.: You do not state the circumstances under which they blew out. A fuse between the "A" and "B" battery would prevent this happening again. A fuse

could quite conveniently be the narrowest strip you could cut from a piece of tinfoil.

LISTENER-IN (Alfredton): I find a new transformer used in my set whistles when I put my hand on it. Why is this, and why, when the set was overhauled, was a different make of transformer used?

A.: A transformer will frequently squeal because the casing should be earthed. Try doing this, and you will have no further trouble on that score. The new transformer was used probably because it was better than the other one.

A. L. P. (Kakahi). A whistle has developed in my loudspeaker, and a slight howl on 2YA.

A.: Try replacing the grid leak, and if that is ineffective the following in order: Earth the core of the transformer, change the detector valve, examine your wiring very carefully for bad joints, and substitute the grid condenser. This whistling may be due to the complicated wiring caused through the first audio jack.

CONTROL (Gisborne). The information regarding the coils tuned with .000125 condensers on 2in. formers, will be published in a special table next week.

D. C. D. (Auckland). I am troubled by ground noise in the L. White.

A.: Probably due to a defect in the resistances. Follow the articles that will be appearing in the R.R., as very many things about the L.W. are going to be said. We suspect very much the .5 megohm leak. Either try another or have that one measured. Concentrate on (Continued on page 29.)

HOW'S THIS!

If a rich relation said: "Tom, my boy, I'm going to give you a first-class trip around the world with a nice little salary each week to keep you going," you would jump at it. Radio operators don't have to depend on rich relations. If YOU want to be a radio operator, for full particulars write to

JOHNSON'S WIRELESS SCHOOL
 BRANDON STREET, WELLINGTON.

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

Name of set

Number of Valves

Name

Address

Nom de plume

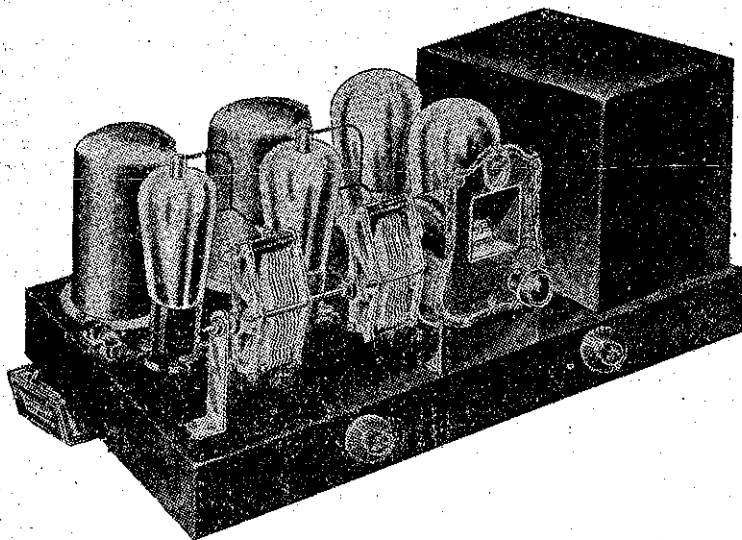
To be kept in subsequent inquiries

Date

Please Note:—

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

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



THE LOFTIN THREE

Powerful, Simple, Economical—
the Set You Have been Awaiting



PROBABLY the intending constructor who has read our schedule in last week's issue will, at the present moment, be debating as to which receiver to construct. Much, of course, depends upon his own particular circumstances, but for those who have the inclination to rebuild we would suggest their using the circuit that will be published next week. The difference between this and the one published this week, while only small, generally makes the set more satisfactory, though there is no reason why those who use all their parts in the present layout should not get the best of results. For those who are commencing to build the outfit for the first time we recommend next week's adaptations.

The groundwork for both circuits will, however, be laid this week, for, after all, the differences in layout are only slight and after the directions this week have been read one should be ready to start upon either model without further instructions. The difference lies in the values of the main chain of resistances only. Where the original amplifier is to be unchanged,

a different style of connecting the radio amplifier and the pick-up must be resorted to. This will in turn be described. In the first place we must insist on the utter simplicity and cheapness of the receiver. If carefully made and the parts first class there can be no questions as to the results. In fact there is nowhere in the whole receiver where distortion can enter and the limitations to almost perfect quality will be only those of the reproducing devices such as the speaker, pick-up, etc.

The Parts List.

WE shall bandy words no further, but commence upon the construction of the Loftin Three. First consider the list of parts published here. These do not take into account the parts required for the amplifier, for it is assumed that the constructor already has this, though for those who are starting from "scratch" the additional parts for that section of the receiver are also published. Again, we must stress the point that they must be of the highest grade.

The sub-panel measures 16½ x 10 x

2½, and should be of heavy aluminium, say, 18 gauge. It is not any too big, and although the parts need not be crowded there is no waste space and there is plenty of room underneath for large condensers. The tuning condensers should be of the low-loss type and well made, for as they have to be ganged any discrepancy in their values will most certainly affect the tuning. The same applies to the coils, the construction of which appeared last week. If this wire is not spaced evenly the inductances will be unequal and the two condensers will not be able to track properly. Those who do not have the necessary winding apparatus should have the coils built for them.

The valve sockets might be of the sub-panel type which can be affixed under the panels so that only the top is visible from above, but their use entails cutting a fairly large hole in the aluminium and unless the requisite tools are to hand this is a difficult task. Of course, a dealer would be able to do that part of the business for those who desire the extra neatness involved by their use. The ordinary sockets, however, are the easiest to fit.

Four additional .5 condensers are required and these should be tested to withstand 500 volts, or in other words that will have to work safely at a voltage of 250.

Preparing the Base.

NOW that everything is to hand, study the picture diagrams accompanying, and lay your parts out according to the top view. This is the more important for the resistances and condensers underneath will fall into position when the components on the top are right. It will be seen that

the major component on the top is the power pack. This has been described previously or it may be one purchased ready made. It will be noted that the condensers in the power supply are placed in the container and those whose apparatus is more than usually bulky should make allowances in the size of the panel. At least 18 inches length may be necessary, so determine this factor beforehand.

Where there is any doubt, lay the parts out on paper and then decide the size that will be necessary to accommodate them all. When they are roughly placed, indicate the positions by lightly marking the panel, then remove them and square up the marks so that the layout will be symmetrical. The idea of the squareness can be seen from the accompanying diagram.

Now everything is replaced ready for drilling and with a sharp instrument indicate where each hole is to be drilled and then with a suitable drill make all the holes necessary. Now do the same to the under base panel components, making quite certain that none will foul the components on the top. The positioning of these under-base parts is not critical, but if alterations must be made, see that filament and plate wiring is kept well apart. Having now drilled all the holes, mount the above board components with the exception of the coils and the condensers, as these are easily damaged when the set is reversed to attend to the under base wiring.

The under base parts should occasion no difficulty, though the greatest of care must be taken that the lugs of the resistances, except where indicated, should not come into contact

BUILD THE LOFTIN THREE

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

Thos. Ballinger & Co., Ltd.,

58-62 Victoria Street, Wellington.

"WHERE THE QUALITY GOODS ARE SOLD."

LIST OF PARTS:

Shield Can, 3in. cylindrical x 4½in. high
Aluminium Sub-panel, 16½in. x 10in. x 2½in.
Two .0005 Condensers.
One Midget Balancing Unit.
One Drum Dial and Coupling Unit.
Four .5 mfd. 500 test Fixed Condensers.
One U.Y. Socket.
One foot 1½in. Tubing.
Six inches 1in. Tubing.
One 224 Type Valve
Insulated Connecting Wire.
Two doz. ½in. x ½in. Brass Screws and Nuts.
Quantity 34 enamelled and 28 d.s.c. gauge wire.

Resistances for next week's set. Diagram will be slightly amended but terminology will remain the same.

RESISTANCES REQUIRED:

	Ohms	Mils.
R11	450	5
R13	2,000	5
R8	50,000	Grid Leak
R1	500	30 heavy
R2	200	Potentiometer
R3	900	30 heavy
R4	2,400	30 heavy
R5	3,500	30 heavy
R6	25,000	Grid Leak
R7	100,000	Carbonium
R12	100,000	Potentiometer

COILS:

Primary	Aerial: Secondary	Primary	R.F. Secondary
60	90	65	90
(tapped at 30)			
1in. former	1½in. former	1in. former	1½
34 d.s.c.	26 d.s.c.	34 d.s.c.	26 d.s.c.

Telegraphic address: "Ralentirez."

FEATURE PEEPS

... at ...

FUTURE PROGRAMMES

SUNDAY

1YA Notes

AT 3 p.m. a lecture on Christian Science, to be given in Scott's Hall by Judge Greene, of Chicago, will be relayed. At 7 o'clock the evening service from the Beresford Street Congregational Church will be relayed. Two excellent singers, Miss Norma Calder (contralto) and Mr. John Bree (baritone), will appear on the studio programme to be given after church. Instrumental items will be given by the Studio Trio, including "Sonata IV" by Mr. Cyril Towsey and Mr. Whitford Waugh, and also a piano solo by Mr. Eric Waters.

Relay from 2YA

THE evening service from St. Thomas's Anglican Church, Wellington South, will be broadcast. The preacher will be the Reverend W. Bullock and the organist and choirmaster Mr. W. A. Gatheridge. The studio concert which will follow will feature the Salon Orchestra and the Etude Quartet. The orchestra will play several selections, including Sullivan's "Lost Chord." The vocal portion of the programme will consist of two quartet numbers, a duet and several solos.

3YA Items

THE Rev. W. Bower Black, LL.B., will be the preacher at St. Paul's Presbyterian Church, which service is to be broadcast. A relay of a concert to be given in Ashburton by the Ashburton Silver Band, under Mr. H. J. Osborn, will follow.

From 4YA

THE Salvation Army service will be broadcast. Captain Chandler will be the preacher, with Mr. Millard conducting the band. Afterward, 4YA will broadcast the concert to be given by the Ashburton Silver Band.

MONDAY

Wellington Topics

MISSES GWLADYS EDWARDES and Hilda Chudley and Messrs. Claude Moss and Charles Edwards will be the contributing vocalists in the programme, and their items for the most part will be of a classical nature. Elocutionary numbers will be given by Miss Rose Carte.

An interesting feature of the instrumental portion of the programme will be a four cello number played by Mr. Claude Tanner, Misses Iris Lawson, Katherine Goodson, and Mr. Alex. Blyth. The item in question, a "Serenade" by Lachner, is being broadcast for the first time in New Zealand on this occasion.

The Orchestra, under Signor A. P. Truda, will play supporting numbers.

Features from 3YA

THE monthly talk on books will be given by Mr. E. E. Wiltshire, President of Linwood Public Library. Mr. J. Scott, conductor of Derry's Military Band, has arranged a well-diversified programme, and included on the supplementary list of artists are several 3YA favourites, including the Broadcasting Trio.

4YA Items

A CONCERT to be given in Dunedin Town Hall by the Royal Dunedin Male Choir, will be broadcast. Some specially fine chorus work will be heard in "Christmas Eve," "Damascus," "The Cloud-capped Towers," "The Orpheus," "Shenandoah," "Ring Out Wild Bells," and "Loch Lomond."

The soloists will be: Signorina Rosse (soprano), Mr. A. Romeril (baritone), Mr. G. Dunne (baritone), Mr. W. Smith (French horn), and Miss Eva Judd (violin).

TUESDAY

Notes from Auckland

GREAT interest is already being taken in the forthcoming visit of Lord and Lady Baden-Powell, and the Girl Guides and Boy Scouts are getting ready for the great occasion. Miss A. M. Burgin, at 7.40 o'clock this evening,



"MISTER REE,"

whose radio magic has delighted thousands of listeners-in to 1YA.
—Andrew, photo.

will give a talk on the Girl Guides and the forthcoming rally.

One of the most enjoyable sections of the programmes which are broadcast from 1YA is the series of talks given by Mrs. Daisy Basham on the lives and works of great composers. On this occasion she has chosen the composer Donizetti for her discourse, and she will be assisted by Mr. H. Barry Cone, who will sing several numbers from this composer's operas. Miss Joan Laird, a young soprano with extensive English

The Week

Cello Quartet
2YA, Monday.

Male Choir
4YA, Monday.

Edinburgh Night
4YA, Tuesday.

Training College Concert
1YA, Wednesday.

Little Play Club
1YA, Friday.

St. Andrew's Day
1YA, Saturday.

Warehousemen's Choir
2YA, Saturday.

experience, who since her return to New Zealand a few months ago has won recognition for her artistic singing, will sing three operatic numbers. There are probably few singers with such a long and successful concert experience as Mr. Arthur Ripley, one of Auckland's leading tenors, who will sing this evening. The String Octet will provide many interesting items from various light and grand operas.

Wellington Topics

TO-NIGHT there will be a miscellaneous concert. A popular programme will be provided by the Salon Orchestra, Mr. J. Blackwood will contribute piano-accompanied items, there will be humour from Mr. Will McKeon, and the latest popular songs from Mr. W. E. Elliott. Mrs. Jeanne Potts and Mr. H. W. Dowling will be heard in soprano and baritone respectively.

4YA Features

MR. R. W. COUPLAND, who has succeeded Mr. R. W. Marshall in charge of the Tourist Office in Dunedin, will speak on "Tourist Resorts of New Zealand."

The success, "Edinburgh Night," won such approbation that a repetition of this type of programme is warranted, and this evening 4YA will present an entertainment of Scottish music.

Selections will be played by the Dunedin Highland Pipe Band, under the direction of Pipe-Major MacMillan. This is one of the finest pipe bands in New Zealand, and on this occasion items will be new to New Zealand listeners. Such items as "Robin Adair," "The Rowen Tree," "We'd Better Bide a Wee," "Finker's Weddin'," "Rory O'More," "Scots Wha Hae," "Scotland Yet," "Scottish Bluebell," and "Annie Laurie" are a few of the items to be performed by assisting artists.

WEDNESDAY

Items from 1YA

THIS evening Miss Briar Gardner will give the final of her series

You have a Radio !

WE have a Maintenance Service Department that will keep it in perfect order.

This Department is under the supervision of one of the finest radio-tricians in New Zealand, and we are in a position to undertake all manner of repairs, adjustments and reconstruction work on any piece of radio apparatus, either for the trade or private owners. No job too small, nor too large. No experimenting by inexperienced amateurs.

L. B. SCOTT LTD.

Manchester St., CHRISTCHURCH. for SERVICE
"The Big Radio Store."

of talks on "Pottery." Many listeners have expressed their appreciation of this lady's interesting and informative lectures.

The concert programme this evening will be given entirely by the students of the Auckland Teachers' Training College. It will be the first time that such a concert will have been broadcast, and all listeners will find something of interest and enjoyment, for these young teachers have enthusiastically put forth every effort to make this evening a great success.

The programme to be given by the students will include both music and drama. The chief interest on the musical side will be found in the choral work by the College Glee Club, numbering over 80 voices. There will be the usual four-part songs of the traditional choir or Glee Club and here will be found Edward German's powerful and vivacious "Rolling Down to Rio" and the humorous song "Oh! the Noble Duke of York."

Then will follow a group of folk songs from many lands—France, Germany, the Tyrol, Hungary, British Isles—and there will also be Maori songs. In these days of commercialised music, full of cheap and worthless sentiment, it is refreshing, at times, to return to the songs of the people. The old songs of the British Isles are full of pure beauty and sincerity of expression.

Interspersed in all this choral work will be items by pianists, vocal soloists and a male voice quartet.

Another feature of the programme will be a one-act play by Mr. C. H. Box, of Tauranga, a former student of the college. The play is entitled "Walking Off," and deals with the struggle which a farmer has in order to make a living off his high-priced land.

Mr. Box has written several plays on New Zealand life, including a long chronicle play "Wiremu Tamehana," a powerful interpretation of the King Movement and the Waikato War. He has an intimate knowledge of life in the back-blocks of New Zealand.

Ensilage-making

ON broadcast from 4YA and 3YA, Farmer Brown and an agricultural instructor will discuss ensilage making. The parties to the dialogue will be Mr. L. W. McCaskill and Mr. R. B. Tennant. Dialogues of this nature have been given before with very satisfactory results, the speakers being specially gifted for the work. The dialogue will be given under the auspices of the 4YA Primary Productions Committee.

From Christchurch

THE programme will feature "The Arcadians" (by Monckton and Talbot), and the vocalists (the Salon Quartet) will feature all the principal concerted and solo numbers of this very popular musical play. Supporting instrumental music will be provided by the Studio Octet under Mr. Harold Beck.

4YA Features

MR. ARTHUR GORDON'S well-known orchestra will provide the instrumental music, when the modern craze for syncopation will be well catered for. On the vocal side of the entertainment a new radio artist in the

person of Master Leslie Coombs, who has a well-trained voice, beautifully clear and of delightful quality, will make his appearance.

THURSDAY

Budgeting—Part 2

THE home science talk from 1YA, 2YA and 3YA will be on "Budgeting, or Managing the Family Income, Part 2." The talk has been



MISS VEDA NELSON,
a contralto soloist, who broadcasts
from 1YA.
—Andrew, photo.

prepared by the Home Science Extension Department of Otago University.

Auckland Items

A FURTHER lecture on "Cancer" will be given at 7.40 p.m. by Dr. E. B. Gunson.

Recently 1YA listeners were delighted by a programme given by the orchestra and members of the Orpheus Club. Another entertainment will be given this evening. The orchestra consists of some of Auckland's leading players, and they are a very enthusiastic band of musicians under able leadership. Orchestral items include "Ballet Music" from "Faust" (by Gounod) and "Ballet Music" from "Dance of the Hours" (by Ponchielli). A new singer to 1YA will be heard when Mrs. Lambert, considered to be one of the finest contraltos in the Dominion, will, in company with Mr. Frank Sutherland, sing the well-known duet "O Lovely Night." Included in the programme will be the Asquiths, who will provide a "Twenty Minutes' Drawing Room Entertainment."

Wellington Features

AT 7.40 p.m. a talk on "Diet and Dental Diseases," one of the series of lecturettes arranged by the Dental Division, Department of Health, will be given by Mr. J. B. Bibby, an officer of the department.

The Savage Club Orchestra has been engaged to give the whole of the evening concert and will provide a programme that will appeal to all tastes. Outstanding features are Friedman's "Slavonic Rhapsody," Massenet's "Scenes Pittoresques" (descriptive of scenes in and around Algiers), Suppe's

"Carnival" Overture, "The Blue Danube" waltz, and the overture to "The Bohemian Girl." Vocal solos will be given by Savages Wilbur Davies and Lew Campbell. The orchestra will perform under the conductorship of Savage Frank Thomas, who is widely known as an orchestral conductor and accompanist of outstanding ability. Circumstances permitting a relay of the sound film feature showing at the Majestic Theatre will be incorporated in the programme.

From 3YA

THE evening talk for farmers will be given by Mr. J. G. McKay, Fields Instructor of the Department of Agriculture, on the subject of "Wheat Certification."

The concert will comprise a relay from the Radiant Hall, where the third of the season's concerts by the Christchurch Orchestral Society is to be given.

The orchestra plays under the conductorship of Professor Oddone Savini and a very attractive programme has been arranged. The numbers to be presented will include the tone poem "In Memoriam" (composed by Mr. R. A. Horne in memory of the late Mr. G. Bonnington, ex-president, and arranged by Mr. Arthur Lilly, A.R.C.O.).

FRIDAY

From 1YA

AT 7.40, under the auspices of the F. R. Field Research Society, Mr. Field will give a further talk on "Workings of the Sun and Their Effect Upon the Earth, Part 2." These scientific lectures are of interest to all listeners.



MISS LAURA WALKER,
a very popular soprano soloist, who
is heard from 1YA.
—Andrew, photo.

The Little Play Club, already very popular with 1YA listeners, is providing the whole of the programme. There will be original sketches written by Miss Marie Gaudin, also vocal and instrumental solos.

The whole of the performance will be under the direction of Mrs. Zoe Bartley Baxter, a fact which will en-

sure that the entertainment will be of the same high standard as the previous appearances of this club.

2YA Notes

MR. COLIN W. SMITH, B.A., technical and associate editor of the "Radio Record," will give the fifth of his series of radio talks this evening at 7.40, his subject being "The Radio Gramophone."

The concert session will be devoted to a programme of operatic and miscellaneous numbers. Items of outstanding interest will be the solos by Miss Belle Renaut, late of 3YA. This young singer has a most delightful contralto voice and will sing two numbers from French opera and one from Italian opera. Another item of interest will be Piatti's cello duet by Mr. Claude Tanner and Miss Iris Lawson.

Features from 3YA

THE fortnightly talk on "Radio Service" will be given by Messrs. D. Cossgrave and W. Melbourne.

Preceding a session of dance music at 3YA will be a popular concert to which the contributing artists will include Miss Monica O'Connell, A.T.C.L. (mezzo-soprano, who received her musical training at the Ferry Road Convent, Christchurch), Mrs. C. J. Stow, mezzo-contralto, late of Melbourne.

Items from Dunedin

ARENSKY, Chaminade and Tschalkowsky will be represented this evening, as the Studio Trio will present four of the finest trios by these eminent musicians. The vocal section on this programme will be presented by broadcasting artists of outstanding merit. This evening will also see the first appearance of Mr. Hunter, secretary of the Dunedin Shakespeare Club. This club is of acknowledged standing and many members have stepped from its ranks on to the professional stage.

SATURDAY

Auckland Features

DURING the afternoon there will be a relay of the results of the Takapuna Jockey Club's meeting, interspersed with selected gramophone records. At 7.40 Mr. G. D. Rutter will once more talk to garden-lovers on "Gladioli."

As this is the eve of St Andrew's Day, the whole of the programme will be devoted to Scottish songs and humour.

No Scottish programme would be complete without the bagpipes, and so the station has engaged the Auckland District Highland Pipe Band to give several numbers that will warm the hearts of all Scots. The popular Scottish soprano, Miss Reta McCullay, will once again be heard in several Scottish ballads. The String Octet will play many numbers redolent of the land of the heather, and Sandy and Mac, two Scottish comedians, will be heard in humorous patter.

2YA Items

THERE will be a relay from the Concert Chamber, Town Hall, the Wellington Commercial Travelers' and Warehousemen's Male Voice Choir's last concert of the season. The choir performs under the com- (Concluded on page 28.)

Full Programmes for Next

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

Sunday, November 23

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, NOVEMBER 23.

- 3.0 : Relay from Scotts Hall, lecture on "Christian Science" by Judge Samuel W. Greene, C.S.B., of Chicago, Ill., U.S.A., under the auspices of First Church of Christ Scientist, Auckland.
- 4.0 : Selected gramophone items from the studio.
- 6.0 : Children's song service, conducted by "Uncle Bert."
- 6.55 : Relay of Divine Service, Beresford Street Congregational Church. Preacher, Rev. Albert V. Whiting; Choirmaster, Mr. William Gemmell; Organist, Mr. Arthur Cherry.
- 8.30 : (approx.): Johann Strauss and Symphony Orchestra, "Doctrinen." Contralto—Miss Norma M. Calder, (a) "Here in the Quiet Hills" (Carne), (b) "The Wind" (Spross). Studio Trio—(a) "Menuet" (Bach), (b) "Preislied" (Wagner). Baritone—Mr. John Bree, "Aladdy Mine" (Loehr). Piano—Mr. Eric F. B. Waters, "Autumn" (Chaminade). Organ—Stanley Roper, "Imperial March" (Elgar). Violin and piano—Messrs. J. Whitford Waugh and Cyril Towsey, "Sonata No. 4" (Handel). Contralto—Miss Norma M. Calder, "Summer Rain" (Willeby). Studio Trio—"Scherzo and Finale" from "Grand Trio Concertante" (Spohr). Baritone—Mr. John Bree, (a) "The Rose of Tralee" (Spencer), (b) "Simon the Cellarer" (Hatton). Johann Strauss and Symphony Orchestra, "When the Lemons Bloom."
- 9.30 (approx.): God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, NOVEMBER 23.

- 3.0 to 4.30 : Afternoon session of selected gramophone items.
- 6.0 : Children's song service conducted by "Uncle George," assisted by the Vivian Street Baptist Sunday School Choir.
- 7.0 : Relay of evening service of St. Thomas's Anglican Church, Wellington South. Preacher: Rev. W. Bullock, Vicar of St. Peter's Church; Organist and Choirmaster, Mr. W. A. Gatheridge.
- 8.15 (approx.): Studio concert by the Salon Orchestra and Etude Quartet: Selection—Salon Orchestra (Conductor, Mr. M. T. Dixon), "Lucia di Lammermoor" (Donizetti). Quartet—The Etude, "See Our Oars With Feathered Spray." Soprano—Miss Greta Stark, "Had You But Known" (Denza). Band—H.M. Coldstream Guards, (a) "Pirates of Penzance," (b) "Iolanthe" (Sullivan). Baritone—Mr. Ray Kemp, "Thanks Be To God" (Dickson). Reverie—Salon Orchestra, (a) "The Sacred Hour" (Ketelbey), (b) selection, "Adagietto Religioso" (Bohm). Contralto—Mrs. Ray Kemp, "He Wipes the Tear" (Lee). Arthur Pryor's Band, "Officer of the Day" (Hall). Weather report and station notices. Selection—Salon Orchestra, "Brahms Memoiren" (Morena). Tenor—Mr. Will Hancock, "In a Monastery Garden" (Ketelbey). Duet—Mr. and Mrs. Ray Kemp, "The Voyagers" (Sanderson). Chorus—Royal Opera Chorus, (a) "Opening Chorus," (b) "Pilgrims Chorus" from "Boris Godounov" (Moussorgsky). Selection—Salon Orchestra, "The Lost Chord" (Sullivan). Bells—W. E. Jordan, (a) "Spring Song" (Mendelssohn), (b) "Country Dance" (Newton). Quartet—The Etude, "Peaceful Slumbering on the Ocean" (Storace). Selection—Salon Orchestra, "By the Lake of Geneva," Part 1 (Bendel). God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, NOVEMBER 23.

- 3.0 : Afternoon session—Gramophone recital.
- 5.30 : Children's song service by children from Presbyterian Sunday Schools.
- 6.15 : Chimes from studio.
- 6.30 : Piano—Miss Dorothy Davies, "Prelude in A Flat" (Chopin).
- 6.35 : Christchurch Broadcasting Trio, "Allegro Vivace" (Beethoven).
- 6.44 : Vocal—Irish Male Quartet, "Holy God, We Praise Thy Name."
- 6.47 : Broadcasting Trio, (a) "Entr'acte" from "Rosamund" (Schubert), (b) "Waltz" (Rebikof).
- 6.55 : Duet—Lucrizia Bori and Lawrence Tibbett, "Calm as the Night."
- 7.0 : Relay of evening service from St. Paul's Presbyterian Church. Preacher, Rev. W. Bower Black; Organist, Mr. Norman Williams; Choir Conductor, Mr. H. Blakeley.
- 8.15 (approx.): Relay of band programme from His Majesty's Theatre, Ashburton, by the Silver Band (Conductor H. J. Osborne). God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, NOVEMBER 23.

- 3.0 : Chimes. Selected gramophone items.
- 5.30 : Children's song service, conducted by Big Brother Bill.
- 6.45 : Relay of evening church service from Salvation Army Citadel Church. Preacher, Captain Chandler; Band Conductor, Mr. Millard.
- 8.15 : Relay through 3YA, Christchurch, of concert by the Ashburton Silver Band from His Majesty's Theatre, Ashburton, under the conductorship of Mr. H. J. Osborne. God save the King.

Monday, November 24

1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, NOVEMBER 24.

SILENT DAY.

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, NOVEMBER 24.

- 3.0 : Chimes. Selected studio items.
- 3.30 and 4.30 : Sporting results to hand.
- 5.0 : Children's session, conducted by Uncle Jeff.
- 6.0 : Dinner music session. Halle Orchestra, "Capriccio Espagnole" (Rimsky-Korsakov).
- 6.13 : Tacet.
- 6.15 : Menorah Symphony Orchestra, "Bar Kochba" Selection (Goldefaden). Piano—Ignaz Friedman, "Minuetto from Suite" (J. Suk). New York Symphony Orchestra, "Entrance of the Little Fauns."
- 6.29 : Tacet.
- 6.30 : Musical Art Quartet, "To a Wild Rose" (McDowell). Violin—Yelly D'Aranyi, "Souvenir" (Drdla). Orchestra de la Societe des Concerts du Conservatoire, Paris, "Le Rouet D'Omphale" (Saint-Saens).
- 6.42 : Tacet.
- 6.45 : Musical Art Quartet, "Mighty Lak a Rose" (Nevin). Piano—Ignaz Friedman, "Berceuse" (Chopin). Berlin State Orchestra, "Weiner Blut" (Strauss).
- 6.58 : Tacet.
- 7.0 : News session, market reports and sports results.
- 7.40 : Lecturette—Mr. H. C. South, "Books—Grave and Gay."
- 8.0 : Chimes. Overture—Orchestra (Conductor, Signor A. P. Truga), "Rokoczy."
- 8.9 : Soprano—Miss Gwladys Edwardes, (a) "A Green Cornfield" (Michael Head); (b) "A Black Bird Singing" (Michael Head).
- 8.14 : Organ—G. T. Pattman, "Liebestraum" (Liszt).
- 8.20 : Baritone with orchestra—Mr. Claude Moss, Four Indian Love Lyrics (Woodforde-Finden), (a) "The Temple Bells"; (b) "Less Than the Dust"; (c) "Kashmiri Song"; (d) "Till I Wake."
- 8.32 : Elocution—Miss Rose Carte, "Brier Rose" (Boyesen).
- 8.37 : Fantasia—Orchestra, "Greetings from the Old World" (Hock).
- 8.45 : Contralto—Miss Hilda Chudley, (a) "Four by the Clock" (Harris); (b) "Swing Low Sweet Chariot" (Burleigh).
- 8.50 : Tenor—Mr. Chas. P. Edwards, "King Duncan's Daughters" (Allitsen).
- 8.53 : Symphonic poem—Orchestra, "Mazeppa" (Liszt). Selection—Orchestra, "Berceuse" (Karganoff, arr. Roberts).
- 9.1 : Weather report and station notices.
- 9.3 : Soprano—Miss Gwladys Edwardes, (a) "Ships of Arcady" (Michael Head); (b) "Beloved" (Michael Head).
- 9.8 : 'Cellos—Mr. Claude Tanner, Misses Irene Lawson, Katherine Godson and Mr. Alex Blyth, "Serenade" (Lachner).
- 9.20 : Humorous recital—Miss Rose Carte, (a) "A Trip To-morrow" (Anon); (b) "A Funny Story" (Anon).
- 9.25 : Selection—Orchestra, "Momento Capriccioso" (Weber, arr. Roberts).
- 9.33 : Contralto—Miss Hilda Chudley, (a) "A Page's Road Song" (Novello); (b) "Lullaby" (Scott).
- 9.38 : Fantasia—Dajos Bela Orchestra, "La Traviata" (Verdi).
- 9.46 : Tenor—Mr. Chas. P. Edwards, (a) "Nightfall at Sea" (Phillips); (b) "Five Little Piccanninies" (Anthony).
- 9.52 : Choral—Sheffield Choir, "Jerusalem" (Blake and Parry).
- 9.56 : Selection—Orchestra, "Toreador and Andalous" (Rubenstein).
- 10.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, NOVEMBER 24.

- 3.0 : Afternoon session—Gramophone recital.
- 4.25 : Sports results.
- 5.0 : Children's hour, "Cousin Margot and the Mystery Man."
- 6.0 : Dinner session. J. H. Squire's Celeste Octet, "Operatica" (arr. J. H. Squire). Band—The Bombardiers, "Hungarian Dance No. 5" (Brahms).

Week-all Stations-to Nov. 30

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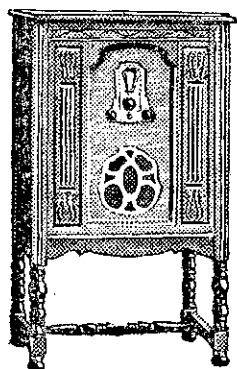
- Orchestre Symphonique de Paris, "L'Arlesienne Suite" Adagietto.
 6.14: Tacet.
 6.15: Regal Orchestra, "Pagliacci" Selection (Leoncavallo).
 J. H. Squire's Celeste Octet, "Song of the Waterfall" (J. H. Squire).
 Orchestre Symphonique de Paris, "L'Arlesienne" Entr'acte le Carillon.
 6.29: Tacet.
 6.30: London Theatre Orchestra, "A Country Girl" Selection (Monckton).
 Band—The Bombardiers, "Hungarian Dance No. 6" (Brahms).
 Orchestre Symphonique de Paris, "L'Arlesienne" Intermezzo (Bizet).
 6.44: Tacet.
 6.45: Regal Cinema Orchestra, "Show of Shows" Selection.
 J. H. Squire's Celeste Octet, "Scent of the Jasmine" (J. H. Squire).
 Orchestre Symphonique de Paris, "L'Arlesienne" Entr'acte la Cuisine de Castelet (Bizet).
 6.59: Tacet.
 7.0: News session.
 7.30: Talk—Mr. E. E. Wiltshire, "Books of the Month."
 8.0: Chimes. Band Programme by Derry's Military Band (J. Scott, conductor), assisted by 3YA Artists.
 March—Band, "La Ritarata Italiana" (Dunn).
 Serenata—Band, "Come Back" (arr. J. Scott, band conductor).
 8.10: Soprano—Miss Addie Campbell, (a) "Ave Maria" (Mascagni); (b) "The Wreath" (Kenneth Rae).
 8.16: Organ—Eddie Dundstedter, (a) "Marie" (Berlin); (b) "Carolina Moon" (Davis-Burke).
 8.22: Broadcasting Trio, "Rondo" (Reissiger).
 8.32: Humorous song—Mr. George Titchener, "The Punch and Judy Show."

- 8.36: American sketch—Band, "By the Swanee River" (Myddleton).
 8.45: Chorus—Vocal Gems from "Merrie England" (German and Hood).
 8.53: Trombone novelty—Band, "Sally Trombone" (Fillmore).
 8.59: Weather report and station notices.
 9.1: Paul Godwin and His Orchestra, "Third Waltz Medley" (Robrecht).
 9.9: Soprano—Miss Addie Campbell, (a) "God Touched the Rose" (W. H. Brown); (b) "Three Green Bonnets" (D'Hardelot).
 9.17: Broadcasting Trio, (a) "Song of the Mountains" (Grieg); (b) "Andante Melodique" (Dancila); (c) "Serenade" (Victor Herbert).
 9.26: Vocal—Kaalounahi Quartet, "Hawaii Where the Sunshine Smiles."
 9.29: Selection—Band, "Les Cloches de Corneville" (Godfrey).
 9.40: Humorous songs—Mr. George Titchener, (a) "Harmonica Harry" (Phil Baxter); (b) "Give Yourself a Pat on the Back."
 9.47: Guitar and autoharp—Carter Family, "River of Jordan" (arr. Carter).
 9.50: Foxtrot—Band, (a) "With My Guitar and You" (Snyder).
 March—Band, (a) "Florentine" (Fueck).
 10.0: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, NOVEMBER 24.

- 3.0: Chimes. Selected gramophone items.
 4.25: Sporting results.
 5.0: Children's hour, conducted by Big Brother Bill.
 6.0: Dinner music.
 J. H. Squire's Celeste Octet, "Peter Pan Selection" (Crook).
 Cello—Gaspar Cassado, "Chanson Villageoise" (Popper).
 Columbia Symphony Orchestra, "Scarf Dance" (Chaminade).
 6.13: Tacet.
 6.15: Debroy Somers Band, "The Desert Song" (Romberg).
 Cello—Gaspar Cassado, "Mennett" (Haydn, arr. Burmester-Moffat).
 Sheffield Orpheus Male Choir, "Hymn Before Action."
 6.28: Tacet.
 6.30: Halle Orchestra, "Rosamunde Ballet Music" (Schubert). 1—Andantino; 2—Allegro Moderato; 3—Andante un poco assai.
 Bournemouth Municipal Orchestra, "Idylle Bretonne" (Gennin).
 6.43: Tacet.
 6.45: Columbia Symphony Orchestra, "The Flatterer" (Chaminade).
 Zurich Tonhalle Orchestra, "Gavotte" (from "Idomeneo") (Mozart).
 Bournemouth Municipal Orchestra, "Fluttering Birds" (Gennin).
 Sheffield Orpheus Male Choir, "The Long Day Closes" (Chorley).
 6.58: Tacet.
 7.0: News session.
 8.0: Relay of Royal Dunedin Male Choir Concert from Dunedin Town Hall, under conductorship of Dr. V. E. Galway. Soloists: Signorina Rosse, soprano; Mr. A. Romeril, baritone; Mr. G. Dunne, baritone; Mr. W. Smith, French horn; Miss Eva Judd, obligato violin. Part song—"Triumphal March" (from "Naaman") (arr. Mansfield). Solo—Mr. A. W. Romeril, "Silver Moon" (Adams). Part song—"The Little Sandman" (West). Quartet—Messrs. Jones, Blake, Paterson and McAllum, "O Restless River" (Pinsuti). Part song—with solo by Miss Meda Paine, "Christmas Eve." Part song—"Bandit's Song From 'Ernani'" (Verdi). Solo—Mr. George Dunn, "The Two Grenadiers" (Schumann). Part song—"Shenandoah" (Marshall-Bartholomew). Solo—Signorina Rossi, "Voi Lo Sapete" (Mascagni). Horn solo with violin—Mr. W. Smith, "Serenade" (Titl.). Festival carol—"Ring Out, Wild Bells" (Fletcher).
 10.0: God save the King.

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DIVISION

AUCKLAND

CHRISTCHURCH

WELLINGTON

Tuesday, November 25

1XA, AUCKLAND (900 KILOCYCLES)—TUESDAY, NOVEMBER 25.

- 3.0: Afternoon session—Selected studio items, including Literary Selection by the Announcer.
 3.15: Talk—Mrs. Les Crane, "Health of Mind and Body in Relation to Diet."
 3.30: Further selected studio items.
 5.0: Children's session, conducted by "Uncle Dave."
 6.0: Dinner session.
 Grand Symphony Orchestra, "Raymond Overture, Parts 1 and 2."
 Edith Lorand's Orchestra, "Wine, Woman and Song" (Joh. Strauss).
 Orchestra Mascotte with Edith Lorand, "Siren Magic" (Waldteufel).
 6.13: Tacet.
 6.15: Orchestra of the Opera Comique, Paris, "Scenes Pittoresques", (a) "Marche"; (b) "Fete Boheme" (Massenet).
 Dr. Ormandy's Instrumental Trio, "Barcarolle" (Offenbach).
 Edith Lorand's Orchestra, "Minuet" (Boccherini).
 6.29: Tacet.
 6.30: Edith Lorand's Orchestra, "Tales from the Vienna Woods."
 The Royal Music Makers, "Ah! Sweet Mystery of Life" (Victor Herbert).
 Orchestra Mascotte with Edith Lorand, "I'd Like to Kiss the Ladies."

- 6.44: Tacet.
 6.45: Edith Lorand's Orchestra, "Toreador and Andalous" (Rubinstein); "Roses of the South" (Joh. Strauss).
 Dr. Ormand's Instrumental Trio, "From the Land of the Sky-Blue Water" (Cadman).
 The Royal Music Makers, "Kiss Me Again" (Herbert).
 7.0: News and market reports.
 7.40: Talk—Miss A. M. Burgin, "Girl Guides and the Forthcoming Rally."
 8.0: Chimes.
 Overture—Band of H.M. Coldstream Guards, (a) "Faust" (Gounod); (b) "Les Cloches de Cornville" (Planquette).
 8.9: Soprano—Miss Joan Laird, (a) "Love's Own Kiss" (from "High Jinks") (Friml); (b) "Deep in My Heart" (from "Student Prince") (Romberg).
 8.16: Selection—String Octet, under direction of J. Whitford Waugh, "Flora-dora" (Stuart).
 8.26: Lecture-recital—Mrs. Daisy Basham, assisted by Mr. Henry H. Barry Coney, "Donizetti."
 8.41: Selection—String Octet, "Lucrezia Borgia" (Donizetti).
 8.53: Tenor—Mr. Arthur H. Ripley, (a) "Sweetheart Mine" (from "Wonder Worker") (Kerby); (b) "The Brake and Braken" (from "Doris")
 9.0: Evening weather forecast and announcements.
 9.2: Chorus—Light Opera Company, Vocal Gems from "Veronique."
 9.6: Soprano—Miss Joan Laird, "Fill High" (from "La Traviata") (Verdi).
 9.10: Selection—String Octet, "Schumann Songs" (arr. Roberts).
 9.25: Lecture-recital—Mrs. Daisy Basham, assisted by Mr. H. Barry Coney, "Donizetti."
 9.40: Selection—String Octet, "Carmen" (Bizet).
 9.48: Tenor—Mr. Arthur H. Ripley, "On Billow Rocking" (from "Les Cloches de Cornville") (Planquette).
 9.52: Band—H.M. Grenadier Guards, "Sylvia Ballet" (Delibes).
 10.0: God save the King

2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, NOVEMBER 25.

- 3.0: Chimes. Selected studio items
 3.30 and 4.30: Sporting results to hand.
 5.0: Children's session, conducted by Uncle Toby and Jumbo.
 6.0: Dinner music session—Edison Bell Hour.
 Edison Bell Symphony Orchestra, Paris, "Ballet Egyptien," Parts 1 to 4.
 Marcu's Roumanian Orchestra, "It is Written on Your Lips."
 6.14: Tacet.
 6.15: Edison Bell Symphony Orchestra, "Manon," Parts 1 to 4.
 The Scala Trio, "Après un Reve" (Faure).
 6.29: Tacet.
 6.30: Edison Bell Symphony Orchestra, Paris, "Carmen" Selection (Bizet).
 Band of H.M. Scots Guards, "The Grasshoppers' Dance" (Bucalossi).
 Edison Bell Symphony Orchestra, Paris, "Light Cavalry" Overture.
 6.44: Tacet.
 6.45: Scala Salon Orchestra, "Say it with Songs" Selection.
 The Scala Trio, "Elegie" (Masselet).
 Marcu's Roumanian Orchestra, "Two Red Roses, a Gentle Kiss."
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Representative, Agricultural Department, "For the Man on the Land."
 8.0: Chimes. Overture—Salon Orchestra (Conductor, Mr. M. T. Dixon), "In a Persian Market" (Ketelbey).
 8.9: Soprano—Mrs. Jeanie Potts, (a) "Caller Herrin" (Traditional), (b) "Granny's Heilan' Hame" (Macfarlane).
 8.16: Piano accordion—Mr. J. Blackwood, (a) "Invercargill March" (Lithgow), (b) "When it's Springtime in the Rockies" (Woolsey-Sauer).
 8.22: Baritone—Mr. H. W. Dowling, (a) "Sea Fever" (Coningsby-Clarke), (b) "The Vagabond" (Coningsby-Clarke).
 8.29: Selection—Salon Orchestra, "Minuet and Gavotte" (Jacobi).
 8.36: Humour—Mr. Will McKeon, "On Strike" (Pond).
 8.41: Popular songs—Mr. W. E. Elliott, (a) "Cheer Up, Good Times are Comin'" (Greer), (b) "Dancing with Tears in My Eyes."
 8.47: Selections—Salon Orchestra, (a) "Moon Enchanted" (Besley), (b) "Fleurette d'Amour" (Fletcher).
 8.55: Soprano—Mrs. Jeanie Potts, "Hush-a-bye Birdie" (Bunten).
 8.58: Weather report and station notices.
 8.59: Piano accordion—Mr. J. Blackwood, "Medley of Popular Songs."
 9.4: Baritone—Mr. H. W. Dowling, "The Call of the Wild" (McGeogh).
 9.7: Selection—Salon Orchestra, "Gabrielle Suite" (Rosse).
 9.17: Humour—Mr. Will McKeon, "Humorous Anecdotes" (Original).
 9.22: Popular song—Mr. W. E. Elliott, "The Latest Popular Hit."
 9.26: Selection—Salon Orchestra, "Suite Romantique" (Ketelbey).
 9.32: Dance programme.
 Foxtrots—Vallee's Connecticut Yankees, "Heigh Ho! Everybody, Heigh Ho!" (Woods).
 Shilkret's Orchestra, "Hittin' the Ceiling" (Gottler).
 Weems' Orchestra, "Good Morning, Good Evening, Good Night" (Lewis).
 Shilkret's Orchestra, "Sing a Little Love Song" (Gottler).
 9.42: Vocal duet—Dora Maughan and Walter Fehl, "That's Just What I Thought" (Bennett-Carlton).
 Foxtrots—Vallee's Connecticut Yankees, "S'posin'" (Razaf).
 Arnheim's Orchestra, "Lovable and Sweet" (Clare).
 Olsen's Orchestra, "Out Where the Moonbeams are Born."
 Reisman's Orchestra, "When You Come to the End of the Day" (Westphal).

- 9.57: Piano duet—Arden-Ohman, "Ragamuffin" (Greer).
 Foxtrots—Shilkret's Orchestra, "Junior" (Donaldson).
 Waring's Pennsylvanians, "When My Dreams Come True."
 Reisman's Orchestra, "Gay Love" (Clarke).
 Waring's Pennsylvanians, "My Sin" (de Sylva).
 10.12: Humour—Leonard Henry, "What Did the Village Blacksmith Say?"
 Foxtrots—Shilkret's Orchestra, "Used to You" (de Sylva).
 All Star Orchestra, "My Dream Memory" (Clare).
 Shilkret's Orchestra, "Why Can't You?" (de Sylva).
 The Troubadours, "My Song of the Nile" (Bryan).
 Waltz—The Troubadours, "My Heart is Bluer than Your Eyes."
 10.30: Piano duet—Victor Arden, Phil Ohman, "Dance of the Paper Dolls."
 Foxtrots—Vallee's Connecticut Yankees, "Miss You" (Tobias).
 Reisman's Orchestra, "Ain't Misbehavin'" (Razaf).
 Vallee's Connecticut Yankees, "The One in the World."
 10.42: Geo. Olsen and His Music, "Reaching for Someone" (Leslie).
 Vocal duet—Dora Maughan and Walter Fehl, "Eggs, Toast and Coffee."
 Foxtrots—Hylton's Orchestra, "You're the Cream in My Coffee."
 Vallee's Connecticut Yankees, "Every Moon's a Honeymoon."
 Hylton's Orchestra, "To Know You is to Love You."
 Waltz—Reisman's Orchestra, "Evangeline" (Rose).
 11.0: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, NOVEMBER 25. SILENT DAY.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, NOVEMBER 25.

- 3.0: Chimes. Selected gramophone items.
 4.25: Sporting results.
 5.0: Chimes. Children's hour, conducted by "Uncle Bert."
 6.0: Dinner music:
 Royal Italian Band, "Marcia Reale" (Gabetti).
 Court Symphony Orchestra, "In Venice" (Sellars).
 Organ—Stanley MacDonald, "Was it a Dream?" (Coslow).
 Royal Italian Band, "Garibaldi's Hymn" (Olivieri).
 6.12: Tacet.
 6.15: Ketelbey's Concert Orchestra, "Sanctuary of the Heart" (Ketelbey).
 Cello—W. H. Squire, "Melody in F" (Popper).
 6.26: Tacet.
 6.30: W. H. Squire's Celeste Octet, "Mignon": (1) "Introduction and Romance," (2) "Polonaise" (Thomas).
 Cello—W. H. Squire, "Silver Threads Among the Gold."
 6.42: Tacet.
 6.45: H.M. Grenadier Guards, "Turkish Patrol" (Michaelis).
 Organ—Stanley MacDonald, "Nicolette" (Batten).
 Jacque Jacobs Ensemble, "Weiner Blut" (Strauss).
 H.M. Grenadier Guards Band, "Smithy in the Woods" (Michaelis).
 6.58: Tacet.
 7.0: News session.
 7.40: Talk—Mr. R. W. Coupland, "Tourist Resorts of New Zealand."
 8.0: Special programme of Scotch music by Dunedin Highland Pipe Band, under direction of Pipe-Major McMillan, assisted by 4YA artists.
 Selection—Band, "Road to the Isles," "Old Rustic Bridge," "Lochiel's March," "Jack Murray," "Miss McLeod of Raasay."
 8.11: Soprano—Mrs. D. Carty, "Robin Adair" (Burns).
 8.15: Selection—Symphony Orchestra, "Artists' Life" (Strauss).
 8.19: Recital—Miss E. Newbold, "The Cold Proposal" (Anon.).
 8.23: Selection—Band, "Sweet Maid of Glendaruel," "Pride of Scotland," "Glendaruel Highlanders," "Because He was a Bonny Lad," "The High Road to Linton."
 8.33: Baritone—Mr. Bert Rawlinson, (a) "The Tinker's Waddin'" (Anon.), (b) "The Wee Cooper o' Fife" (Anon.).
 8.39: Cornet—Mr. G. J. Christie, "Song Without Words" (Mendelssohn).
 8.43: Contralto—Miss Helen Roy, "Rowan Tree" (Mudie).
 8.46: Selection—Band, "Scotland the Brave," "Land of Trees," "Bonnets are Over the Border," "Miss Drummond of Perth," "Sleepy Maggie."
 8.56: Bass—Mr. Edward Bond, "McGregors' Gathering" (McFarren).
 9.0: Weather report.
 9.2: Selection—Ketelbey's Concert Orchestra, "In a Fairy Realm."
 9.14: Soprano—Mrs. D. Carty, (a) "Rory O'More" (Glover), (b) "We Better Bide a Wee" (Moffatt).
 9.20: Recital—Miss E. Newbold, (a) "The Emancipation of Man" (Burdett), (b) "The New Minister" (Anon.).
 9.26: Selection—Band, "King's Own Scottish Borderers," "Waiaata Poi" (Hill), "Stirling Castle," "Jack Wilson."
 9.36: Baritone—Mr. Bert Rawlinson, "We're a' John Tamson's Bairns" (Roy).
 9.39: Cornet—Mr. G. J. Christie, "Lizzie" (Hartmann).
 9.44: Contralto—Miss Helen Roy, "Scottish Bluebell" (Banker), "Scotland Yet" (MacLeod).
 9.50: Pipe solo—Pipe-Major McMillan, "Holy City" (Adams), "Skye Boat Song" (traditional).
 9.55: Bass—Mr. E. Bond, (a) "Scots Wha Hae" (Lee), (b) "Annie Laurie."
 10.1: Selection—Band, "Mackenzie's Highlanders" (traditional).
 10.8: God save the King.

Wednesday, November 26

1YA, AUCKLAND (990 KILOCYCLES)—WEDNESDAY, NOVEMBER 26.

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

- 5.0 : Children's session conducted by "Uncle Tom."
 6.0 : Dinner music:
 Finck's Orchestra, "Gaiety Echoes" (Caryll-Monckton).
 Sandler's Orchestra, "Las Lagarteranas" (Guerrero and Foulkes).
 Violin—Lipschultz, "La Golondrina" (Sorradell).
 6.13 : Tacet.
 6.15 : J. H. Squire's Celeste Octet, "Everybody's Melodies" (arr. J. H. Squire).
 Organ—John Hassel, "By the Waters of Minnetonka" (Lieurance).
 Sandler's Orchestra, "Raphaellito" (Guerrero and Foulkes).
 6.28 : Tacet.
 6.30 : Regal Cinema Orchestra, "Broadway Selection" (Gottler).
 Violin—Lipschultz, "Estrellita" (Ludlow).
 Romani and Italian Orchestra, "Old Comrades March" (Telke).
 6.43 : Tacet.
 6.45 : Berlin State Orchestra, "Die Fledermaus" (Strauss).
 Nullo Romani's Orchestra, "Canto Al Inverno."
 Russian Novelty Orchestra, "Tesoro Mio" (Becucci).
 6.58 : Tacet.
 7.0 : News and market reports.
 7.40 : Talk—Miss Briar Gardner, "Pottery."
 8.0 : Chimes. Presentation of programme by the Auckland Training College for Teachers. Glee Club: Conductor, Mr. H. Hollinrake, Mus. Bac., B.A. Dramatic Club: Producer, Mr. J. W. Shaw, M.A.
 Overture—Royal Albert Hall Orchestra, "Pomp and Circumstance, No. 1 in D" (Elgar).
 8.4 : Choral—The Glee Club, "Oh! The Noble Duke of York" (Johnson), "Let All the World" (Chapman).
 8.10 : Soprano—(a) "Tender Wood-Dove" (Gounod), (b) "Killarney" (Balfe).
 8.15 : Choral—Female voices, "Worship" (Shaw), "The Fairie Queen."
 8.20 : Piano—"Prelude in C Minor" (Rachmaninoff).
 8.25 : Male quartet—(a) "King Arthur" (folk song), (b) "The Three Crows."
 8.30 : Instrumental—J. H. Squire's Celeste Octet, "Traume" (Wagner).
 8.34 : Contralto—(a) "Trees" (Rasbach), (b) "Lullaby" (Brahms).
 8.39 : Choral—The Glee Club, folk songs from many lands: "Bergette" (old French pastoral ditty), "Fairy Glade" (German folk song), "Calling the Cows" (Tyrolean yodel), "The Night Riders" (Hungarian folk song), "Poi Waka" (Maori song) (all taken from the Dominion Song Book).
 8.50 : Piano—"Moscow Prelude" (Rachmaninoff).
 8.55 : Sea Shanties, Male voices—(1) "Johnny, Come Down to Hilo," (2) "Hanging Johnny," (3) "Sally Brown" (Terry).
 9.2 : Evening weather forecast and announcements.
 9.4 : Choral—The Glee Club, folk songs from the British Isles: "Ruben and Rachel" (English folk song), "Loch Lomond" (Scottish folk song), "Ash Grove" (Welsh folk song), "Minstrel Boy" (Irish folk song).
 9.12 : Instrumental—J. H. Squire's Celeste Octet, "Albumbblatt" (Wagner).
 9.16 : Play—The Dramatic Club, "Walking Off" (C. H. Box).
 9.51 : Royal Albert Hall Orchestra, "Pomp and Circumstance No. 2 in A Minor" (Elgar).
 9.55 : Negro Spiritual—The Glee Club, "Swing Low, Sweet Chariot." Sea Shanty—"Rolling Down to Rio" (German).
 10.1 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, NOVEMBER 26.

SILENT DAY.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, NOV. 26.

- 3.0 : Afternoon session, gramophone recital.
 4.25 : Sports results.
 5.0 : Children's Hour, conducted by Uncle John.
 6.0 : Dinner session.
 International Novelty Orchestra, "Emperor" (J. Strauss).
 Vienna Philharmonic Orchestra, "Ruins of Athens" (Beethoven).
 Organ—Sydney Gustard, "Poupee Valsante" (Poldini).
 International Novelty Orchestra, "Gold and Silver" (Franz Lehar).
 6.14 : Tacet.
 6.15 : The Palladium Orchestra, "The Grasshopper's Dance" (Bucalossi).
 Vienna Philharmonic Orchestra, "Turkish March" (Mozart).
 Band of H.M. Coldstream Guards, "Morning, Noon and Night."
 The Rhythmic Eight, "Neapolitan Nights" (Zamecnik).
 6.29 : Tacet.
 6.30 : The Palladium Orchestra, "La Siesta" (Barcarolle).
 Zonophone Salon Orchestra, "Love's Garden of Roses."
 Organ—Sydney Gustard, "Un Peu D'Amour" (Silesu).
 Zonophone Salon Orchestra, "Mighty Lak a Rose" (Nevin).
 6.44 : Tacet.
 6.45 : Marek Weber and His Orchestra, "Faust" (Gounod, arr. Weber).
 Band of H.M. Coldstream Guards, "Pique Dame" Overture.
 6.57 : Tacet.
 7.0 : News session.
 7.15 : Relay of Farmers Dialogue from Dunedin—Subject: "Farmer Brown discusses ensilage making with the instructor." Speakers: L. W. McCaskill and R. B. Tennant.
 7.30 : Addington stock market reports.
 8.0 : Chimes. Operatic and Miscellaneous Programme. Featuring vocal excerpts from:—"The Arcadians" (Lionel Monckton and Howard Talbot) by "The Salon Quartet"—Miss Corrie Aslin, soprano; Miss Dulcie Mitchell, contralto; Mr. James Shaw, tenor; Mr. J. Graham Young, baritone.

- Overture—Hermann Finck's Orchestra, "Schnbertiana."
 8.16 : Salon Quartet—"The Joy of Life" (Monckton-Talbot).
 Soprano—Miss Corrie Aslin, "The Pipes of Pan."
 8.21 : Baritone and Quartet—Mr. J. Graham Young and Quartet, "Sweet Simplicitas" (Monckton-Talbot).
 Tenor and Quartet—Mr. Jas. Shaw, "Back Your Fancy."
 8.26 : Studio Octet—"Overture Iphigene en Aulide" (Gluck).
 8.34 : Contralto and Quartet—Miss Dulcie Mitchell and Quartet, "The Girl With a Brogue" (Monckton-Talbot).
 Soprano and Quartet—Miss Corrie Aslin and Quartet, "Arcady is Ever Young" (Monckton-Talbot).
 8.39 : Tenor—Mr. Jas. Shaw, "Somewhere" (Monckton-Talbot).
 Baritone and Quartet—Mr. J. Graham Young, "Fickle Fortune."
 Soprano and Baritone—Salon Duo, "Charming Weather."
 8.45 : Organ—F. Roland-Tims, "Shepherd's Lullaby" (Hewitt).
 8.48 : Studio Octet, "Three Dances from Nell Gwynn" (German), (a) "Country Dance"; (b) "Pastoral Dance" (c) "Merrymakers Dance."
 8.58 : Weather forecast and station notices.
 9.0 : Band—La Garde Republicaine, (a) "La Pere De La Victoire" (Game), (b) "Sambre Et Meuse."
 9.6 : Contralto and Soprano—Salonelle Duo, "Plant Your Posies."
 Contralto—Miss Dulcie Mitchell, "I Like London."
 9.11 : Baritone—Mr. J. Graham Young, "My Mother" (Monckton-Talbot).
 Contralto and quartet—Miss Dulcie Mitchell, "Bring Me a Rose."
 9.16 : Studio Octet—Grand Opera Selections, "La Boheme."
 9.25 : Quartet—Salon Quartet, "Truth is so Beautiful."
 Contralto and tenor—Salon Duo, "Half Past Two."
 9.31 : Studio Octet, (a) "Largo" (Handel); (b) "Pavane" (from "Etienne Marcel") (Saint Saens).
 9.40 : Tenor—Mr. Jas. Shaw, "The Only Girl Alive" (Monckton-Talbot).
 Soprano—Miss Corrie Aslin, "Come Back to Arcady."
 9.45 : Cornet—James Compton, (a) "At Dawn" (Code), (b) "At Sunset."
 9.51 : Baritone and quartet—Mr. J. Graham Young, "Love Will Win."
 Soprano—Miss Corrie Aslin, "My Heart Flies Homing."
 9.55 : Studio Octet, "Five Interludes" (from "Beggars Opera") (Austin).
 10.1 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, NOVEMBER 26.

- 3.0 : Chimes. Selected gramophone items.
 3.15 : Talk—"Meals that Keep the Family Fit—Dinner and Supper." Home Science Extension Department of Otago University, under auspices of 4YA Primary Productions Committee.
 4.25 : Sporting results.
 5.0 : Chimes. Children's hour, conducted by Big Brother Bill.
 6.0 : Dinner music session.
 Charles Ancliffe and His Orchestra, "Ancliffe Waltzes" Selection.
 J. H. Squire's Celeste Octet, "Twilight on the Waters" (Squire).
 Gil Dech Ensemble, "Italian Nights" (Roberts).
 6.14 : Tacet.
 6.15 : Regal Cinema Orchestra, "Sally" Selection (Burke-Kern).
 Organ—Quentin Maclean, "Lily of Laguna" (Leslie Stuart).
 J. H. Squire's Celeste Octet, "Minuet Sicilienne."
 6.28 : Tacet.
 6.30 : Debroy Somers' Band, "Mister Cinders" Selection (Ellis-Myers).
 J. H. Squire's Celeste Octet, "The Piccaninnies' Picnic" (Squire).
 Organ—Quentin Maclean, "Little Dolly Daydream" (Leslie Stuart).
 6.43 : Tacet.
 6.45 : Albert W. Ketelbey's Concert Orchestra, "The Clock and the Dresden Figures" (Ketelbey).
 J. H. Squire's Celeste Octet, "Minuet in D" (Mozart, arr. Willoughby).
 Albert W. Ketelbey's Concert Orchestra, "Wedgwood Blue."
 Gil Dech Ensemble, "Valse Parisienne" (Roberts, arr. Barry).
 6.58 : Tacet.
 7.0 : News session.
 7.15 : Talk—R. B. Tennant and L. W. McCaskill under auspices of 4YA Primary Productions Committee, "Farmer Brown discusses Ensilage-making with the Instructor."
 8.0 : Overture—Band of H.M. Grenadier Guards, "Regimental March Medley."
 8.9 : Baritone—Mr. William Ruffell, (a) "Nelson's Gone a'Sailing" (Lohr), (b) "World That Once Was a Garden" (Lohr).
 8.15 : Popular Melodies—Gordon's Orchestra, "Spread a Little Happiness" (Ellis); "Song o' My Heart" (Hanley).
 8.23 : Talk—Mr. W. B. Lambert, "Tailoring."
 8.38 : Popular Waltz—Gordon's Orchestra, "Dear Little Irish Mother."
 8.42 : Soprano—Miss A. Finnerty, "Pucker Up and Whistle" (Vincent).
 8.46 : Violin—Mr. Len Beath, "Skandinavische Romanze" (Bohm).
 8.50 : Boy soprano—Master Leslie A. Coombs, "Trooper Johnny Ludlow."
 8.53 : Foxtrots—Gordon's Orchestra, "A House on a Hilltop" (Mayerl), "Every Little Moment" (Ellis).
 9.0 : Weather report.
 9.2 : Baritone—Mr. William Ruffell, "For the Green" (Lohr).
 9.5 : Banjo—Mr. H. Stokes, "Ole South" (Zamecnik).
 Novelty—Gordon's Orchestra, "Tell It To The Daisies" (Young).
 9.15 : Soprano—Miss A. Finnerty, (a) "Sing a Little Love Song" (Conrad), (b) "When Irish Eyes Are Smiling" (Ball).
 9.21 : American Medley Foxtrot—Gordon's Orchestra, "Yank-o-Mania."
 9.24 : Boy soprano—Master Leslie A. Coombs, (a) "Cloud Shadow" (Rogers); (b) "The Cuckoo Clock" (Schaefer).

- 9.30: Dance session.
 Foxtrots—Ben Selvin and His Orchestra, "Around the Corner."
 Gil Dech and His Syncopators, "You Can't Be Unhappy If You Sing" (Barry and Carr).
 Paul Specht and His Orchestra, "Santiago."
 Stellar Dance Band, "Minnie's Yoo-Hoo!" (W. Stalling).
 9.42: Waltz—The Four Bright Sparks, "Eleanor" (McCarthy-Hanley).
 Foxtrots—Van Phillips and His Band, "Just Like in a Story Book."
 Gil Dech and His Syncopators, "Bridge of Our Dreams Come True."
 9.51: Vocal duet—Sweet and Low Duettists, "By the Waters of Killarney."
 9.54: Foxtrots—Ipana Troubadours, "Cooking Breakfast For The One I Love" (Rose-Tobias).
 Columbians Photo Players, "Leave It That Way."
 Ipana Troubadours, "Kickin' a Hole in the Sky."
 Columbia Photo Players, "The Whole Darned Thing's for You" (Ahlert and Turk).
 10.6: Waltz—Frank Ferera's Hawaiian Trio, "Lazy Lou'siana Moon."
 Foxtrots—Paul Specht and His Orchestra, "Into My Heart."
 The Four Bright Sparks, "High Society Blues."
 10.15: Vocal—Cavan O'Connor, "The Sunshine of Marseilles."
 10.18: Foxtrots—The Columbia Photo Players, "The Free and Easy."
 Frank Ferera's Hawaiian Trio, "Pale Blue Waters."
 Stellar Dance Band, "The Toy Farm-Yard."
 Paul Whiteman and His Orchestra, "Livin' in the Sunlight."
 10.30: Waltz—Stellar Dance Band, "I Feel You Near Me."
 Foxtrots—The Columbia Photo Players, "It Must Be You."
 Ben Selvin and His Orchestra, "With My Guitar and You."
 Paul Whiteman and His Orchestra, "You Brought a New Kind of Love to Me" (Fain-Kahal and Morman).
 Stellar Dance Band, "A Pair of Blue Eyes" (Kernell).
 10.45: Vocal duet—Sweet and Low Duettists, "Just an Old Refrain."
 10.48: Foxtrots—Van Phillips and His Band, "I'm in the Market for You."
 Gil Dech and His Syncopators, "Johnnie, Our Aeroplane Girl" (Lumsdaine).
 Debroy Somers Band, "Figaro" (Mitchell and Motzan).
 Gil Dech and His Syncopators, "A Lone Girl Flyer."
 11.0: God save the King.
- 9.39: Waltzes—The Thematics Orchestra, "Giovanna" (Konniz).
 Regent Club Orchestra, "The Moonlight Reminds Me of You."
 Vocal—Marion Harris, "Wasn't It Nice?" (Young).
 9.48: Foxtrots—Colonial Club Orchestra, "It's You I Love" (Davis).
 Jack Denny and His Mount Royal Hotel Orchestra, "Whip-poorwill" (de Voll).
 Waltz—Castlewood Marimba Band, "A Night of Love in Hawaii."
 9.57: Foxtrots—Meyer Davis' Hotel Astor Orchestra, "Blue is the Night."
 Colonial Club Orchestra, "Why" (Davis).
 Jesse Stafford and His Orchestra, "I'm Following You."
 Waltzes—Regent Club Orchestra, "Dancing With the Tears in My Eyes" (Dublin, Burke).
 Castlewood Marimba Band, "My Heart Belongs to the Girl who Belongs to Somebody Else" (Sherman, Lewis).
 10.12: Foxtrots—Hal Kemp and His Orchestra, "Give Yourself a Pat on the Back" (Butler, Wallace).
 Tom Gerum and His Orchestra, "Absence Makes the Heart Grow Fonder" (Lewis).
 Bob Haring and His Orchestra, "I Still Remember" (Tobias).
 Tom Clines and His Music, "Wasn't It Nice?" (Young).
 Colonial Club Orchestra, "Stein Song" (Colcord-Fernstad).
 Waltz—Castlewood Marimba Band, "Down the River of Golden Dreams" (Klenner, Shlikret).
 10.30: Foxtrots—Meyer Davis' Hotel Astor Orchestra, "Nobody Cares if I'm Blue" (Clarke, Akst).
 Hal Kemp and His Orchestra, "If I Had a Girl Like You."
 Meyer Davis' Hotel Astor Orchestra, "Ro-ro-Rolling Along."
 10.39: Vocal duet—Al and Pete, "That's Why I'm Jealous of You" (Rose).
 10.42: Foxtrots—Tom Clines and His Music, "You Darlin'" (Woods).
 Jack Denny and His Mount Royal Hotel Orchestra, "Dream Avenue" (Tobias).
 Tom Clines and His Music, "You for Me" (Jason); "Be Careful with Those Eyes" (Woods).
 10.54: Waltzes—Castlewood Marimba Band, "My Reveries" (White).
 Regent Club Orchestra, "Because There's a Change in You."
 11.0: God save the King.

Thursday, November 27

IYA, AUCKLAND (900 KILOCYCLES)—THURSDAY, NOVEMBER 27.

- 3.0: Afternoon session—Selected gramophone items.
 3.15: Lecturette—"Budgeting or Managing the Family Income." Part 2.
 Talk prepared by Home Science Extension Department, Otago University.
 3.30: Further selected studio items.
 5.0: Children's session, conducted by "Peter Pan."
 6.0: Dinner session.
 Milan Symphony Orchestra, "Semiramide Overture" (Rossini).
 Symphony Orchestra, "Tales from the Vienna Woods" (Strauss).
 6.14: Tacet.
 6.15: Herman Finck and His Orchestra, "Old and New" (Potpourri of popular melodies), Parts 1-4 (arr. Herman Finck).
 6.29: Tacet.
 6.30: Bournemouth Municipal Orchestra, "The Merry Brothers" (Gennin).
 Columbia Symphony Orchestra, "Al Fresco" (Herbert).
 Symphony Orchestra, "Artist's Life" (Strauss).
 Milan Symphony Orchestra, "Cavalleria Rusticana" (Intermezzo).
 6.44: Tacet.
 6.45: Bournemouth Municipal Orchestra, "Echoes of the Valley" (Gennin).
 Columbia Symphony Orchestra, "Badinage" (Herbert).
 Royal Philharmonic Orchestra, "Blue Danube" (Strauss).
 6.59: Tacet.
 7.0: News and market reports.
 7.40: Talk—Dr. E. B. Gwson, "Cancer."
 8.0: Chimes. Studio Concert by the Orchestra and members of the Orpheus Club.
 Overture—Orchestra, "Old Faithful" (Helzmann); "Lustspiel."
 8.12: Piccolo—Mr. Will Henderson and Orchestra, "The Larks' Festival."
 Selection—The Orchestra, Ballet Music from "Faust" (Gounod), (a) "Allegretto"; (b) "Allegro"; (c) "Allegro Vivo."
 8.23: Bass-baritone—Mr. Frank Sutherland and Orchestra, "Three for Jack" (Squire).
 8.27: Selection—The Orchestra, "Praeludium" (Jarnefeldt).
 Cornet—Mr. Reg. Davies, "At Dawn" (Code).
 8.34: Waltz—The Orchestra, "Tesoro" (Becucci).
 8.41: Novelty—The Asquiths, "Twenty-minute Drawing Room Entertainment."
 9.0: Evening weather forecast and announcements.
 9.3: Selection—The Orchestra, Ballet Music, "Dance of the Hours."
 9.9: Vocal duet—Mrs. Lambert and Mr. Frank Sutherland (with 'cello obligato), "O Lovely Night" (Landon Ronald).
 9.12: The Orchestra, "Four Indian Love Lyrics," (a) "Temple Bells," (b) "Less than the Dust," (c) Kashmiri Song, (d) "Till I Wake."
 9.22: Bass-baritone—Mr. Frank Sutherland, "The Tune the Bos'un Played."
 9.26: March—The Orchestra, "Over the Air" (Pischek).
 9.30: Programme of Dance Music.
 Foxtrots—Jesse Stafford and His Orchestra, "I'm Sailing on a Sun-beam" (Dreyer); "Ragamuffin Romeo" (De Costa); "A Bench in the Park" (Yellen).

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, NOVEMBER 27.

- 3.0: Chimes—Selected studio items.
 3.15: Lecturette—Miss I. F. Meadows, "Budgeting, or Managing the Family Income Part 2." Talk arranged by the Home Science Extension Department, Otago University.
 3.30 and 4.30: Sporting results to hand.
 5.0: Children's session, conducted by Uncle George and Big Brother Jack.
 6.0: Dinner music session.
 Military Band (of specially selected musicians) "Ever or Never."
 Sir Hamilton Harty, conducting the Halle Orchestra, "An Irish Symphony—Scherzo" (Sir Hamilton Harty).
 New Concert Orchestra, "Life in Vienna" Pts. 1 and 2 (Karl Komzak).
 6.14: Tacet.
 6.15: New Concert Orchestra, "Life in Vienna" Pts. 3 and 4 (Karl Komzak).
 Military Band (of specially selected musicians) "The Guards' Patrol."
 Dinicu and His Orchestra, "Crepuscule" Tango (Blanco).
 6.29: Tacet.
 6.30: J. H. Squire's Celeste Octet, "Traume" (Wagner, arr. Willoughby).
 Gustav Holst, conducting the London Symphony Orchestra, "Marching Song" (Gustav Holst).
 J. H. Squire's Celeste Octet, "Albumblatt" (Wagner, arr. Willoughby).
 The Elite Dance Orchestra, "In Einer Konditorei" tango (Raymond).
 6.44: Tacet.
 6.45: Regimental Band of H.M. Grenadier Guards, "Sylvia Ballet" Pts. 1 and 2" (Delibes, arr. Kappey), (a) "Valse Lente"; (b) "Pizzicato"; (c) "Bacchante"; (d) "March."
 Halle Orchestra, "Londonderry Air" (Hamilton-Harty).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. J. B. Bibby, Dental Division, Department of Health "Diet and Dental Disease."
 8.0: Chimes. A Studio Concert by the Wellington Savage Club Orchestra, (Conductor, Savage Frank Thomas).
 Overture—The Orchestra, "Carnival" (Von Suppe).
 Characteristic Dance, Orchestra, "The Grasshopper's Dance."
 March—Orchestra, "Wellington" (Ziehle).
 8.19: Bass-baritone—Savage Wilbur Davies, "Vulcan's Song" (Gounod).
 8.23: Waltz—The Orchestra, "The Blue Danube" (Strauss).
 Polka de Characteristique, "Reconciliation" (Drigo).
 Overture—"Festival" (Leutner).
 8.43: Tenor—Savage Lew Campbell, "The Last Watch" (Pinsuti).
 8.47: Selection—The Orchestra, "H.M.S. Pinafore" (Sullivan).
 March—"Old Comrades" (Teike).
 8.59: Weather report and station notices.
 9.1: Vocal—Baraldi Trio, (a) "My Love Dwelt in a Northern Land" (Elgar), (b) "Just a Little Ring" (Schubert-Clutsam).
 9.7: Suite—The Orchestra, "Scenes Pittoresque" (Massenet), (a) "March," (b) "Angelus"; (c) "Air de Ballet"; (d) "Fete Boheme."
 9.27: Bass-baritone—Savage Wilbur Davies, (a) "Monarch of the Storms" (Bingham); (b) "Out on the Deep" (Lohr).
 9.33: Overture—The Orchestra, "Bohemian Girl" (Balfe).
 Waltz—"A Thousand and One Nights" (Strauss).
 9.49: Tenor—Savage Lew Campbell, "Come Into the Garden, Maud."
 9.53: Rhapsody—The Orchestra, "Slavonic Rhapsody" (Friedman).
 March—"Vimy Ridge" (Bidgood).
 5: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, NOV. 27.

- 3.0 : Afternoon session—Gramophone recital.
 3.15: Lecturette—"Budgeting, or Managing the Family Income," Part 2—a talk arranged by the Home Science Extension Service, Otago University.
 3.30: Continuation of gramophone recital.
 4.25: Sports results.
 5.0 : Children's hour, "Ladybird" and "Uncle Frank."
 6.0 : Dinner session:
 Dajos Bela Orchestra, "Pique Dame" Fantasia (Tschaikowsky).
 Grand Symphony Orchestra, "Polonaise No. 1 in A, Op. 40" (Chopin).
 Dajos Bela Orchestra, "Dynamiden Waltz" (Josef Strauss).
 6.14: Tacet.
 6.15: Grand Symphony Orchestra, "Hungarian Dances Nos. 5 and 6."
 Edith Lorand's Orchestra, "Myosotis Waltz" (Waldteufel).
 Parlophone Dance Orchestra, "The Skaters" (Waldteufel).
 6.29: Tacet.
 6.30: Orchestra of the Opera Comique, Paris, "Ballet Egyptien, Parts 1-4."
 Cello—Gregor Platigorsky, "The Swan" (Saint-Saens).
 6.44: Tacet.
 6.45: Edith Lorand's Orchestra, "The Merry Widow" Selection (Lehar).
 Grand Symphony Orchestra, Scherzo from "Midsummer Night's Dream"
 6.57: Tacet.
 7.0 : News session.
 7.30: Talk—Mr. J. G. McKay, Fields Instructor, Department of Agriculture, "Wheat Certification."
 8.0 : Chimes. Special relay from the Radiant Hall of third concert programme of season of the Christchurch Orchestral Society (incorporated). Conductor, Professor Oddone Savini. Leader of Orchestra, Mr. T. B. Riordan.
 Tone poem—"In Memoriam" (R. A. Horne, arr. Arthur Lilly, A.R.C.O.)
 Symphony—"Allegro and Finale" from "Third Symphony" (Mendelssohn).
 Baritone—Mr. W. Twomey, aria, "O Promise of a Joy Divine" (Masset), from "The King of Lahore."
 Orchestral—"Danse Macabre" (Saint-Saens).
 Return to studio for weather report and announcements.
 Continuation of relay from the Radiant Hall.
 Overture, "The Merry Wives of Windsor" (Nicolai).
 Suite, "Sea Pieces" (Macdowell).
 Baritone, Mr. W. Twomey, (a) "Pagan" (Lohr), (b) "Indian Serenade" Selection, "Madame Butterfly" (Puccini).
 March, "Military March" from "Otello" (Coleridge-Taylor).
 God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, NOVEMBER 27.

SILENT DAY.

Friday, November 28**1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, NOVEMBER 28.**

- 3.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.
 5.0 : Children's session, conducted by "Nod" and "Aunt Jean."
 6.0 : Dinner session:
 Selection—B.B.C. Wireless Symphony Orchestra, "La Boutique Fantasque" (Respighi).
 Cello—W. H. Squire, "Humoresque" (Dunkler-Squire).
 6.12: Tacet.
 6.15: J. H. Squire's Celeste Octet, "Chant Sans Paroles" (Tschaikowsky).
 Suite—Plaza Theatre Orchestra, "Gipsy Suite": (1) Valse, Lonely Life, (2) Allegro, The Dance (German).
 6.27: Tacet.
 6.40: Suite—Plaza Theatre Orchestra, "Gipsy Suite": (1) Menuetto, Love Duet, (2) Tarantella, The Revel (German).
 Madrid Symphony Orchestra, "Dance of the Neighbours" (De Falla).
 6.42: Tacet.
 6.45: Venetian Players String Quintet, (a) "Romanza" (Mozart), (b) "Allegro" (Mozart).
 Pianoforte—Ignaz Friedman, "Romance in E Flat" (Rubinstein).
 Basle Symphony Orchestra, "Rosamunde, Entr'acte No. 2" (Schubert).
 6.57: Tacet.
 7.0 : News and market reports.
 7.40: Talk—Mr. F. R. Field, under the auspices of the F. R. Field Research Society, "Workings of the Sun and their effect upon the Earth," Part 2.
 8.0 : Chimes. Overture—Court Symphony Orchestra, "Windmill Man."
 8.9 : Sketch—The Little Play Club, "Gentlemen Burglars" (Gaudin). Cast: First Burglar, Jack Wright; Second Burglar, Ed. Churchouse; Girl, Zoe Bartley Baxter; Father, Lees Bullock.
 8.19: Waltz—Berlin State Orchestra, "Wiener Blut" (Strauss).
 8.27: Baritone—Mr. Ed. Churchouse, "My Own Little Girl" (Monckton).
 Violin—Jock Mackenzie, "La Tzigane" (Hartmann).
 Vocal duet—Mrs. Zoe Bartley-Baxter and Mr. Ed. Churchouse, "Little China Maid" (Greenbank).
 8.39: Band—H.M. Grenadier Guards, "The Meistersingers" (Wagner).

- 8.47: Recital—Mrs. Zoe Bartley Baxter, (a) "Godiva" (Tennyson), (b) "The Real Hero of the War" (Lucas), (c) "Joints in Armour" (Lucas).
 9.0 : Evening weather forecast and announcements.
 9.2 : Musical sketch—The Little Play Club, with Miss Dorothea Ryan at piano, "Bedtime at the Zoo" (own arrangement).
 9.11: Shakespearean excerpts, "Buckingham's Farewell." Cast: Buckingham, Lees Bullock; Sir Thomas Lovell, Jack Wright.
 9.17: Soprano—Mrs. Zoe Bartley Baxter, (a) "Pleasure and Sorrow" (own composition), (b) "Little House Upon the Hillside" (own composition).
 9.21: Instrumental—Virtuoso String Quartet, "Widdicombe Fair."
 9.25: Comedy sketch, "Powder, Rouge, and Lipstick" (own arrangement). Cast: He, Jack Wright; She, Zoe Bartley Baxter; Man Behind Scene, Lees Bullock.
 9.34: Soprano and chorus—Miss Dorothea Ryan and Company, "A Girl Like You" (MacDermott).
 Baritone—Mr. Ed. Churchouse, "Star of My Soul" (from "The Geisha")
 9.42: Violin—Mr. Jock Mackenzie, "Priere" (Squire).
 9.46: Shakespearean excerpt, "The Murder Scene" from "Macbeth." Lady Macbeth, Zoe Bartley-Baxter; Macbeth, Lees Bullock.
 9.52: Farce—The Little Play Club, "Here Comes the Bride" (own arr.).
 10.2 : March—American Legion Band, "March Salutation" (Seitz).
 10.5 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, NOVEMBER 28.

- 3.0 : Chimes—Selected studio items.
 3.30 and 4.30: Sporting results to hand.
 5.0 : Children's session conducted by Jumbo.
 6.0 : Dinner music session.
 Marek Weber and His Orchestra, "Cavalleria Rusticana" Selection.
 Violin—Fritz Kreisler, "Schon Rosmarin" (Kreisler).
 Vienna Philharmonic Orchestra, "Hungarian Dance No. 3" (Brahms).
 6.13: Tacet.
 6.15: Berlin Philharmonic Orchestra, "Tannhauser" March (Wagner).
 Piano—Mischa Levitzki, "Sonata in A Major" (Scarlatti).
 De Groot and His Orchestra, "I Love You" (Grieg).
 Berlin Philharmonic Orchestra, "Hungarian March—The Damnation of Faust" (Berlioz).
 6.28: Tacet.
 6.30: Berlin State Orchestra, "Oberon" overture (Weber).
 Violin—Fritz Kreisler, "Rondino" (Kreisler).
 Vienna Philharmonic Orchestra, "Hungarian Dance No. 1" (Brahms).
 6.43: Tacet.
 6.45: Royal Opera Orchestra, "Entr'acte, Act. 4 and Ballet Music" (from "Carmen") (Bizet); "Ballet Music" (from "Carmen").
 Piano—Mischa Levitzki, "Ecossaise" (Beethoven).
 De Groot and His Orchestra, "Romance" (Rubenstein).
 6.58: Tacet.
 7.0 : News session, market reports and sports results.
 7.40: Lecturette—Mr. Colin Smith, "The Fifth of a Series of Radio Talks—The Radio Gramophone."
 8.0 : Chimes.
 NOTE: This programme is subject to interruption to permit of a relay of a Sound Film Feature from the Majestic Theatre.
 Overture—Orchestra (Conductor Signor A. P. Truda) ("Tancredi")
 Soprano—Miss Myra Sawyer, "Ave Maria" (from "Cavalleria Rusticana") (Mascagni).
 Organ—Edward O'Henry, "Faust" (Gounod).
 Baritone—Mr. Wm. Boardman, "In Happy Moments" (from "Maritana") (Wallace).
 Selection—Orchestra, "Cavalleria Rusticana" (Mascagni).
 Contralto—Miss Belle Renaut, (a) "Amour Viens Aiders" (from "Samson and Delilah") (Saint-Saens), (b) "Bois Epais" (Lully).
 Elocution—Mr. W. J. Mountjoy, Junr. (a) "Selection from the Play 'Equals Nought' (Drinkwater), (b) "Christmas at Sea."
 Chorus—Zonophone Light Opera Company, Gems from "The Belle of New York" (Kerker).
 Tenor—Mr. Stewart Nelson, "Through the Forest" (from "Der Freischutz" (Weber).
 Fantasia—Orchestra, "William Tell" (Quilter).
 Weather report and station notices.
 Soprano—Miss Myra Sawyer, "Dainty Little Maiden" (from "Love in Springtime" (Somervell).
 Cello duet—Mr. Claude Tanner and Miss Iris Lawson, "Serenata."
 Baritone—Mr. William Boardman, "Proud and Peerless" (from "Griseida" (Bounoneini).
 Selection—Orchestra, "Half-Past Eight" (Rubens).
 Humour—Mr. W. J. Mountjoy, Junr. (a) "Orange Peel" (Milton Hayes); (b) "Frightened to Death" (Rutherford).
 Piano—Miss Edith Rait, "Danse Macabre" (Saint-Saens).
 Contralto—Miss Belle Renaut, "Ah! Se Tu Dormi" (from "Romeo and Juliet") (Vaccari).
 Cello—Beatrice Harrison, "Harlequinade" (Popper).
 Duet—Miss Myra Sawyer and Mr. Wm. Boardman, "Of Fairy Wand Had I the Power" (from "Maritana") (Wallace).
 Tenor—Mr. Stewart Nelson, (a) "Where the Abana Flows" (Woodforde-Finden). (b) "Now Sleeps the Crimson Petal" (Quilter).
 Waltz—Orchestra, "España" (Waldteufel).
 God save the King.

BYA, CHRISTCHURCH (980 KILOCYCLES)—FRIDAY, NOVEMBER 28.

- 3.0 : Afternoon session—Gramophone recital.
 4.25 : Sports results.
 5.0 : Children's hour, conducted by "Peterkin."
 6.0 : Dinner music session.
 Band of H.M. Grenadier Guards, "Sir Harry Lauder Medley."
 J. H. Squire's Celeste Octet, "Second Movement from Symphonie Pathétique" (Tschaiakowsky, arr. Robertson).
 Modern Dance Players, "Amoretten Tanze" (Gungl).
 6.14 : Tacet.
 6.15 : Court Symphony Orchestra, "The Windmill Man."
 Organ—Stanley Macdonald, "The Rosary" (Nevin).
 Symphony Orchestra, "When the Lemons Bloom" (Strauss).
 6.29 : Tacet.
 6.30 : Plaza Theatre Orchestra, "The Three Bears" (Coates).
 Symphony Orchestra, "Doctrinen" (Strauss).
 Continental Novelty Orchestra, "Las Lagarteranas" (Guerrero and Foulkes).
 6.44 : Tacet.
 6.45 : B.B.C. Military Band, "Le Reve Passe" (Krier and Helmer).
 J. H. Squire's Celeste Octet, "Scene de Ballet" (de Beriot, arr. Sear).
 Organ—Stanley Macdonald, "La Rosita" (Dupont).
 Continental Novelty Orchestra, "Los Claveles de Sevilla" (Guerrero).
 6.59 : Tacet.
 7.0 : News session.
 7.30 : Dialogue—Messrs. D. Cossgrove and W. Melbourne, "Radio Service."
 8.0 : Chimes. Popular and Dance Programme.
 Orchestral—Gil Dech Ensemble, "Italian Nights" (Roberts).
 8.3 : Mezzo-contralto—Mrs. C. J. Stow, (a) "My Treasure" (Trevalsa); (b) "In An Old-Fashioned Town" (Squire).
 8.10 : Cello—Mr. H. Beck, (a) "Chant D'Amour" (Cosella); (b) "La Danza" (Rossini).
 8.16 : Humour—Mr. Bert Goodland, "A Love Episode in Three Courses."
 8.21 : Broadcasting Trio, (a) "Intermezzo" (Mathias); (b) "Serenade" (Drdla); (c) "Humoresque" (Widor).
 8.35 : Mezzo-soprano—Miss Monica O'Connell, (a) "Daffodils from My Garden" (Trottere); (b) "I Don't Suppose" (Trottere).
 8.40 : Baritone—Mr. Sydney Armstrong, "When Other Lips" (from "Bohemian Girl" (Balfe).
 8.44 : Piano—Mr. Noel Newson, "L'Alouette" (Glinka-Balakirew).
 8.49 : Mezzo-contralto—Mrs. C. J. Stow, "Slave Song" (Drummond).
 8.53 : Baritone—Mr. Sydney Armstrong, (a) "The Old Clock" (Drummond); (b) "Give Me Youth and a Day" (Drummond).
 9.0 : Weather forecast and station notices.
 9.2 : Broadcasting Trio, (a) "In the Woodland" (Ocki-Albi); (b) "La Coquette" (Translateur).
 9.12 : Mezzo-soprano—Miss Monica O'Connell, (a) "What Shall I Sing to You" (Barry); (b) "Sincerity" (Clarke).
 9.17 : Piano—Mr. Noel Newson, "Theme Varie" (Paderewski).
 9.24 : Humour—Mr. Bert Goodland, "My Own Personal Acquaintance."
 9.30 : Dance music until 11 p.m.
 Foxtrots—Cotton Pickers, "He's a Good Man to Have Around."
 Ray Miller's Orchestra, "Someone's Falling in Love."
 Cotton Pickers, "Shoo Shoo Bogey Boo" (Robin).
 Ray Miller's Orchestra, "You Want Lovin'" (Spier).
 9.42 : Vocal duet—The Inspiration Boys, "On the Alamo" (Kahn).
 Foxtrots—Gerunovich's Roof Garden Orchestra, "There's Sugar Cane Around My Door" (Leonard).
 Mount Royal Hotel Orchestra, "Finding the Long Way Home" (Kahn).
 Waltzes—Regent Club Orchestra, "Mistakes" (Leslie).
 Carter's Orchestra, "Three O'Clock in the Morning."
 9.57 : Organ and xylophone—Lew White, "You Were Meant for Me" (Freed).
 Foxtrots—Mount Royal Hotel Orchestra, "The Land of Sleepy Water."
 Biltmore Hotel Orchestra, "That's What I Call Sweet Music" (Meskill).
 Red Nicholls Five Pennies, "Alice Blue Gown" (Tierney).
 Biltmore Hotel Orchestra, "Now I'm in Love" (Yellen).
 10.12 : Comedienne—June Pursell and Roy Fox, "I'm Walking Around in a Dream" (Lewis).
 Foxtrots—Arnold Johnson's Orchestra, "Don't Hang Your Dreams on a Rainbow" (Kahal).
 Al Goodman's Orchestra, "Or What Have You?" (Henry).
 Colonial Club Orchestra, "Song of the Moonbeams" (Tobias).
 Al Goodman's Orchestra, "I've Made a Habit Out of You."
 Waltz—Regent Club Orchestra, "If We Never Should Meet Again."
 10.30 : Organ with xylophone—Lew White, "Wedding of the Painted Doll."
 Foxtrots—Oriole Orchestra, "An Old Italian Love Song" (Harrison).
 Lyman's California Orchestra, "Ain't Misbehavin'" (Razaf).
 Oriole Orchestra, "Why Did You?" (Lombardo).
 Red Nicholls Five Pennies, "A Pretty Girl is Like a Melody."
 10.45 : Vocal duet—The Inspiration Boys, "The Moonlight March" (Newman).
 Foxtrots—Hotel Astor Orchestra, "Every Moon's a Honeymoon."
 Lyman's California Orchestra, "Bashful Baby" (Friend).
 Hotel Astor Orchestra, "An Eye-Full of You" (Gilbert).
 Waltz—Carter's Orchestra, "That Naughty Waltz" (Stanley).
 11.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, NOVEMBER 28.

- 3.0 : Chimes. Selected gramophone items.
 4.25 : Sporting results.
 5.0 : Chimes. Children's hour, conducted by Aunt Sheila.

- 6.0 : Dinner music session.
 Overture—Basle Symphony Orchestra, "Der Freischutz" (Weber).
 6.12 : Tacet.
 6.15 : J. H. Squire's Celeste Octet, "The Grasshoppers' Dance" (Bucalossi); "The Butterfly" (Bendix).
 Musical Art Quartet, "To a Wild Rose" (McDowell).
 Violin—Yvonne Curti, "Madrigale" (Simonetti).
 6.27 : Tacet.
 6.30 : J. H. Squire's Celeste Octet, (a) "I Love the Moon" (Rubens); (b) "Two Eyes of Grey" (McGeoch).
 J. H. Squire's Celeste Octet, (a) "Amoureuse Valse" (Barger); (b) "Valse Bleue" (Margis).
 6.42 : Tacet.
 6.45 : J. H. Squire's Celeste Octet, "Valse Caprice" (Rubenstein).
 Cello—W. H. Squire, "Sarabande" (Seitzer).
 J. H. Squire's Celeste Octet, "Perpetuum Mobile" (Weber, arr. Crooke).
 6.57 : Tacet.
 7.0 : News session.
 8.0 : Overture—Grand Symphony Orchestra, (a) "Adagietto"; (b) "Minuet"; (c) Intermezzo from "L'Arlesienne Suite" (Bizet).
 8.13 : Bass—Mr. Jack Clark, (a) "Riderless Steed" (Hussell); (b) "Cargoes" (Shaw).
 8.19 : Recital—Mr. H. W. Hunter, "The Figure-Head" (Garstin).
 8.23 : Selection—Instrumental Trio, "Tschaiakowsky."
 8.35 : Soprano—Miss D. Yound, "O Western Wind" (Brahe).
 8.38 : Piano—Mrs. C. Drake, "Wedding Day" (Grieg).
 8.42 : Tenor—Mr. J. B. Hamilton, "The Fairy Tales of Ireland" (Coates).
 8.46 : Instrumental trio—"Chaminade Trio" (Chaminade).
 8.52 : Contralto—Miss G. Burt, "Ma Curly-Headed Babby" (Clutsam).
 8.55 : Cello—Mr. P. J. Palmer, "Canzonetta" (Squire).
 9.0 : Weather report.
 9.2 : Selection—National Military Band, "Ballet Egyptian" (Luigini).
 9.10 : Bass—Mr. Jack Clark, "Young Leitruck" (Henschel).
 9.13 : Recitals—Mr. H. Hunter, (a) "The Appointment" (Herbert); (b) "The Land of Might Have Been" (Anon).
 9.19 : Soprano—Miss D. Yound, (a) "My Heart is Singing" (Grant); (b) "The Soul of a Rose" (Williams).
 9.25 : Selections—Instrumental Trio, "Arensky No. 1 and 2" (Arensky).
 9.38 : Tenor—Mr. J. B. Hamilton, (a) "When the Rooks Fly Homeward" (Rowley); (b) "The Lea-Rig" (arr. Lea).
 9.43 : Contralto—Miss G. Burt, (a) "The Love Tide" (Pontet); (b) "If My Dream Ship Came Home" (McGeoch).
 9.49 : Selection—New Symphony Orchestra, "Children's Overture" (Quilter).
 10.1 : God save the King.

Saturday, November 29**1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, NOVEMBER 29.**

- 11.45 : Relay—Results of Takapuna Jockey Club's meeting, interspersed with gramophone items from the studio.
 5.0 : Children's session, conducted by Cinderella.
 6.0 : Dinner session.
 Overture—Grand Symphony Orchestra, "Zampa" (Herold).
 Waltz—Dajos Bela Orchestra, "Morgenblatter" (Strauss).
 6.12 : Tacet.
 6.15 : Instrumental—Orchestra of the Opera Comique, Paris, "Scenes Pittoresques" (Massenet).
 Waltz—Edith Lorand's Orchestra, "Vienna Waltz" (Drdla).
 6.27 : Tacet.
 6.30 : Dajos Bela Orchestra, "Marien Klange" (Strauss).
 Dajos Bela Orchestra, "Idelae" (Tosti).
 Edith Lorand's Orchestra, "Merry Vienna" (Zishrer).
 6.42 : Tacet.
 6.45 : Edith Lorand's Orchestra, "Song of Autumn" (Waldteufel).
 Queenie and David Kaihi, "Hawaiian March" (Ellis).
 Valse Intermezzo—Edith Lorand's Orchestra, "The Flowers' Dream."
 Selection—H.M. Irish Guards, "The Desert Song" (Romberg).
 6.57 : Tacet.
 7.0 : News and market reports.
 7.40 : Talk—Mr. G. D. Rutter "Gladioli."
 8.0 : Chimes. Special Programme in Commemoration of St. Andrew's Day.
 Overture—Debroy Somers Band, "Scottish Medley" (arr. Somers).
 8.5 : Soprano—Miss Reta W. MacCullay, (a) "Robin Adair" (trdtl.), (b) "We'd Better Bide a Wee" (Claribel).
 8.11 : Selection—String Octet under direction Mr. J. Whitford Waugh, "The Thistle" (Myddleton).
 8.21 : Scottish Humour (patter and song), Sandy and Mac, (a) "Doughie the Baker"; (b) "Queen Among the Heather" (c) "The Wedding o' Sandy McNab" (all by Lauder).
 8.36 : March—Auckland and District Highland Pipe Band, "Road to the Isles" (McMillan).
 Hornpipe—Pipe Band, "Black Bear" (Walsh).
 March—Pipe Band, "Back of Benachie" (Logan).
 8.45 : Lecture—Mr. A. B. Chappell—Topical Talk.
 9.0 : Evening weather forecast and announcements.
 9.2 : String Octet, (a) "Hame o' Mine" (Murdoch); (b) "Scotch Poem."
 9.9 : Soprano—Miss Reta W. MacCullay, (a) "Jock o' Hazeldean" (Scott).
 (b) "The Land of the Leal" (McKenzie).
 9.15 : March—Pipe Band, "Auchmountain's Bonny Glen" (Balloch).
 Strathspey—"Struan Robertson" (Robertson).

Reel—"Highway to Linton" (Logan).

- 9.23: Tenor—Mr. A. L. Macpherson, "Of a' the Airts" (Burns).
 9.27: String Octet, "Scotch Pastorale" (Saenger).
 Suite—String Octet, "My Native Heath" (Wood).
 9.39: Humour—Mr. Owen Pritchard, "The Waggle o' the Kilt" (Lander).
 9.45: Retreat—Pipe Band, "When the Battle is Over" (Brown).
 March—Pipe Band, "Highland Laddie" (Logan).
 9.50: 'Cello—Lauri Kennedy, "Old Scotch Melody" (arr. Kennedy).
 9.54: Selection—String Octet, "From the Highlands" (Langey).
 10.2: Programme of dance music.
 Foxtrots—Victor Arden-Phil Ohman and Their Orchestra, "How Am I To Know?" (Parker-King).
 New Mayfair Dance Orchestra, "Mickey Mouse."
 Waring's Pennsylvanians, "Alma Mammy".
 Jack Hylton's Orchestra, "House on the Hilltop."
 Leo Reisman's Orchestra, "At Close of Day."
 10.15: Vocal—Mildred Hunt, "Sleepy Valley" (Sterling-Hanley).
 Foxtrots—Bernie Cummins and His Hotel Orchestra, "When a Woman Loves a Man" (Rose-Rainger).
 Nat Shilkret's Orchestra, "Georgia Pines."
 Waltz—Irving Aaronson and His Commanders, "The Land of Going To Be" (Goetz-Kollo).
 10.27: Foxtrots—Arcadians Dance Orchestra, "If I Had My Way."
 Ted Weems' Orchestra, "Miss Wonderful" (Bryan-Ward).
 The Rhythmic Eight, "Welcome Home" (Clarke-Akst).
 Vocal—Mildred Hunt, "S'posin'" (Razaf-Denniker).
 10.39: Foxtrots—Leo Reisman's Orchestra, "Charming" (Grey-Stothart).
 Henry Busse's Orchestra, "I Came to You."
 Waltz—Leo Reisman's Orchestra, "Shepherd's Serenade."
 10.48: Foxtrots—New Mayfair Dance Orchestra, "The Doll's House."
 Leo Reisman's Orchestra, "A Year From To-day."
 Jack Hylton's Orchestra, "Dreamy Honolulu."
 Bernie Cummins and His Hotel Orchestra, "Cooking Break-fast For The One I Love" (Rose-Tobias).
 11.0: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, NOVEMBER 29.

- 3.0: Chimes. Selected studio items.
 3.30 and 4.30: Sporting results to hand.
 5.0: Children's session.
 6.0: Dinner music session:
 Boston Symphony Orchestra, "Frühlingsstimmen" (Johann Strauss).
 Organ—Jesse Crawford, "Serenade" (Romberg).
 National Military Band, "Ben Hur" (Byng).
 6.13: Tacet.
 6.15: Orchestral—Vienna Philharmonic, "Dorfschwalben" (Strauss).
 International Quartet, "Teddy Bears' Picnic" (Bratton).
 Jack Hylton and His Orchestra, "Steppin' Out" (Vauchant).
 6.29: Tacet.
 6.30: New Mayfair Orchestra, "Wake Up and Dream" (Porter).
 Organ—Jesse Crawford, "Indian Love Call" (Friml).
 International Novelty Orchestra, "To Die Dreaming," "Four Little Farms."
 6.43: Tacet.
 6.45: Jack Hylton and His Orchestra, "Lonesome Little Doll."
 6.58: Tacet.
 7.0: News session, market reports and sports results.
 8.0: Chimes. From the Town Hall, relay of the Wellington Commercial Travellers and Warehousemen's Association Male Voice Choir's last concert of the 1930 season (Conductor, Mr. John Bishop).
 10.0: Dance programme:
 Foxtrots—Jack Payne and His B.B.C. Dance Orchestra, "The Punch and Judy Show" (Black).
 O'Leary's Irish Minstrels, "The Pigeon on the Gate."
 Jack Payne and His B.B.C. Dance Orchestra, "Crazy Pirouette" (Frisk).
 Waltz—O'Leary's Irish Minstrels, "My Wild Irish Rose."
 10.12: Foxtrots—Ray Starita and His Ambassadors Band, "My Dream" (Clare, Levant).
 Jan Garber and His Orchestra, "When a Woman Loves a Man" (Rainger, Rose).
 Vocal—Len Maurice, "A Little Kiss Each Morning" (Woods).
 10.21: Foxtrots—The Four Bright Sparks, "Hard to Get."
 Ben Selvin and His Orchestra, "How Am I to Know?"
 Guy Lombardo and His Royal Canadians, "Singin' in the Bath tub" (Magidson, Washington, Cleary).
 10.30: Waltz—Will Osborne and His Orchestra, "There Will Never Be Another Mary" (Ager, Yellen).
 Foxtrots—Guy Lombardo and His Royal Canadians, "A Little Kiss Each Morning" (Woods), "Under a Texas Moon" (Perkins).
 10.39: Vocal—Len Maurice, "Gay Love" (Clare, Levant).
 Waltzes—Paul Whiteman and His Orchestra, "It Happened in Monterey" (Yellen, Ager).
 Moana Orchestra, "My Hawaiian Isles" (Noble).
 10.48: Foxtrots—The Four Bright Sparks, "The Kerb Step."
 Paul Whiteman and His Orchestra, "Song of the Dawn."
 Moana Orchestra, "Dreamy Hula Town" (Collins, Carlson).
 Ted Lewis and His Band, "Lady Luck" (Perkins).
 11.0: Sporting summary.
 11.10: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, NOVEMBER 29.

- 3.0: Afternoon session—Gramophone recital.
 4.25: Sports results.
 5.0: Children's hour, "Aunt Pat."
 6.0: Dinner session:
 Waltz—Dajos Bela Orchestra, (a) "Sulamith" (Hansen-Milde), (b) "Mignonette" (Nicholls).
 Dajos Bela Orchestra, "Eldegaffeln" (Landen).
 6.12: Tacet.
 6.15: Frank Westfield's Orchestra, "Classica" (arr. Tilsley).
 Organ—Sigmund Krumgold, "Indian Love Call" (Friml).
 Waltz—Dajos Bela Orchestra, "You, Only You" (Arnold).
 6.27: Tacet.
 6.30: Selection—Raie Da Costa Ensemble, "Funny Face" (Gershwin).
 Waltz—Dajos Bela Orchestra, "The Sphinx" (Popy).
 6.42: Tacet.
 6.45: Orchestra Mascotte, (a) "The Flowers' Dream" (Translateur), (b) "Whispering of the Flowers" (Von Blon).
 Organ—Sigmund Krumgold, "Gipsy Love Song" (Herbert).
 Dajos Bela Orchestra, "Electric Girl" (Helmburgh-Holmes).
 6.58: Tacet.
 7.0: News session.
 7.30: Sports results.
 8.0: Chimes. Scottish and dance programme by the Caledonian Society's Pipe Band under Pipe-Major Charles Gibson and assisted by 3YA artists.
 March—Pipe Band, "Dovecote Park" (Braidwood).
 Slow air—Pipe Band, "Green Hills of Tyrol" (Logan).
 Slow march—Pipe Band, "Bonnie Mary" (Logan). Soloist, Pipe-Major Robertson.
 8.7: Talk—Right Hon. J. Ramsay MacDonald, "Robert Burns, a Man Amongst Men."
 8.15: March—Pipe Band, "The Haughs of Cromdale" (Logan). Soloist, Pipe-Major McLeod.
 Strathspey—Pipe Band, "Miss Drummond of Perth" (Logan).
 Reel—Pipe Band, "Tail Toddlie" (Logan).
 8.21: Contralto—Mrs. D. W. Stallard, (a) "Doom the Burn, Davie, Love" (Crawford), (b) "Where has Scotland Found Her Fame?"
 8.27: Medley—Debroy Somers Band, "Scottish Medley" (arr. Somers).
 8.35: Vocal—John Goss and Cathedral Male Voice Quartet, (a) "Lowlands," (b) "Highland Laddie" (arr. Taylor Harris).
 8.38: Caledonian Pipe Band Quartet, retreat, "Lochinside" (Logan).
 8.43: Scottish song and story—Mr. Jock Lockhart, introducing "I Love Ma Jean" (Lander).
 8.49: 'Cello—Lauri Kennedy, "Old Scotch Melody" (arr. Kennedy).
 8.53: Baritone—Mr. Robert Allison, "Border Ballad" (Cowen).
 8.57: March—Caledonian Pipe Band, "McKay's Farewell to the 74th."
 Waltz—Caledonian Pipe Band, "Believe Me If All Those Endearing Young Charms" (Logan).
 9.7: Weather forecast and station notices.
 9.9: Band—H.M. Grenadier Guards, "Scottish March" (traditional).
 9.12: Contralto—Mrs. D. W. Stallard, "The Auld Scotch Songs" (Leeson).
 6.16: Pipe solo—Piper J. Shanahan: March, "Blue Bonnets" (Logan); strathspey, "Braes of Tullymit" (Logan); reel, "The High Road to Linton" (Logan).
 9.21: Baritone—Mr. Robert Allison, (a) "Kircornel Lea" (Moffat), (b) "Wee Hoose 'Mang the Heather" (Lander).
 9.31: Choral—"Famous Forty" Elks Chorus, "Annie Laurie" (Douglas-Scott).
 9.36: Mezzo-soprano—Mrs. Maud Wood, (a) "Angus McDonald" (Roecke), (b) "Jock o' Hazeldean" (Jas. Kerr), (c) "Caller On" (Jas. Kerr).
 9.43: Scottish song and story—Mr. Jock Lockhart, (a) "When I Meet McKay" (Lander), (b) "Just a Wee Deoch and Doris" (Lander).
 9.52: March—Caledonian Pipe Band, "Sweet Maid of Glendaruel" (Logan).
 Waltz—Caledonian Pipe Band, "Sunny Days in Maoriland."
 March—Caledonian Pipe Band, "Atholl Highlanders" (W. Rose).
 10.2: Dance music until 11 p.m.:
 Foxtrots—Earl Burtnett and His Los Angeles Biltmore Hotel Orchestra: "When the Little Red Roses Get the Blues for You" (Dubin, Burke); "Puttin' on the Ritz" (Berlin); "Leven-Thirty Saturday Night" (Burtnett, Grantham, Kirkpatrick).
 Waltz—Regent Club Orchestra, "It Happened in Monterey."
 10.12: Foxtrots—Ben Bernie and His Orchestra, "To My Mammy" (Berlin).
 Slatz Randall and His Orchestra, "What a Perfect Night for Love" (Lenzen, Cameron, Bontsema).
 10.21: Vocal—Chester Gaylord, "Any Time's the Time to Fall in Love."
 Foxtrots—Earl Burtnett and His Los Angeles Biltmore Hotel Orchestra, "Courtin' Time" (Stoddard, Coburn, Burtnett).
 Meyer Davis's Hotel Astor Orchestra, "Oh! How I Adore You" (Stoddard, Klauber).
 Earl Burtnett and His Los Angeles Biltmore Hotel Orchestra, "Song of the Dawn" (Yellen, Ager).
 Roger Wolfe Kahn and His Orchestra, "Dark Night."
 Waltz—Meyer Davis's Hotel Astor Orchestra, "Farewell."
 10.36: Foxtrots—Ben Bernie and His Orchestra, "Looking at You" (Berlin).
 Earl Burtnett and His Los Angeles Biltmore Hotel Orchestra, "There's Danger in Your Eyes, Cherie!"
 Slatz Randall and His Orchestra, "Sweetheart Trail."
 10.45: Vocal—Chester Gaylord, "Blue is the Night" (Fisher).
 Waltz—Colonial Club Orchestra, "Why Don't You Love Me?" (Mason).
 Foxtrots—Roger Wolfe Kahn and His Orchestra, "Into My Heart."
 Louis Panico and His Orchestra, "Wabash Blues."

Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, "With You" (Berlin).

11.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, NOVEMBER 29.

- 3.0 : Chimes. Selected gramophone items.
 4.25 : Sporting results.
 5.0 : Chimes. Children's hour, conducted by "Uncle Sambo."
 6.0 : Dinner music session:
 New Mayfair Orchestra, "Follow Through" Selection.
 'Cello—Pablo Casals, "Spanish Dance" (Granados, arr. Casals).
 Novelty Orchestra, "Ginger Snaps" (Bourdon).
 6.13 : Tacet.
 6.15 : Victoria Orchestra, "La Serenata" (Metra).
 Kirilloff's Balalaika Orchestra, "Medley of Old-Time Songs."
 Organ—Jesse Crawford, "How am I to Know?" (Parker-King).
 6.29 : Tacet.
 6.30 : Vienna Philharmonic Orchestra, "Die Fledermaus" (Du und Du).
 Organ—Jesse Crawford, "I'll Close My Eyes to the Rest of the World."
 Novelty Orchestra, "Midnight Bells" (Heuberger).
 6.44 : Tacet.
 6.45 : Novelty Orchestra, "Passion Rose" (Lehar).
 Victoria Orchestra, "Espanita" (Rosey).
 'Cello—Pablo Casals, "Vito" (Spanish Dance), Op. 54, No. 5 (Popper).
 Novelty Orchestra, "Danse Bagatelle" (Bourdon).
 6.58 : Tacet.
 7.0 : News session.
 8.0 : Relay from 3YA, Christchurch, of vaudeville programme.
 10.0 : Dance session:
 Foxtrots—Jesse Stafford and His Palace Hotel Orchestra, "Sophomore Prom" (Klages-Greer).
 Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, "Reach Out for a Rainbow" (Conrad-Mitchell-Gottler).
 Irving Mills and His Hotsy Totsy Gang, "My Little Honey and Me" (Hackforth).
 Earl Burnett and His Los Angeles Biltmore Hotel Orchestra, "Parade of the Blues" (Conrad-Mitchell-Gottler).
 10.12 : Vocal—David McAlpin, "Paddy McGinty's Goat" (Weston).
 Foxtrots—Herbert Gordon and His Hotel Ten Eyck Whispering Orchestra, "I Could Do It for You."
 Dan Russo and His Oriole Orchestra, "Wouldn't It Be Wonderful" (Clarke-Akst).
 Herbert Gordon and His Hotel Ten Eyck Whispering Orchestra, "Hard to Get" (Meyer-Bryan-McLaughlin).
 10.24 : Waltzes—Carter's Orchestra, "Missouri Moon" (Parish Lodge).
 Eddy Shaw's Hawaiians, "Sweetheart of the Tropical Sea."
 Foxtrots—Hal Kemp and His Orchestra, "H'lo Baby."
 Red Nicholls and His Strike-up-the-Band Orchestra, "Strike Up the Band" (Gershwin).
 10.36 : Vocal—David McAlpin, "The Garden Where the Praties Grow."
 Foxtrots—Hal Kemp and His Orchestra, "A Little Kiss Each Morning."
 Red Nicholls and His Strike-up-the-Band Orchestra, "Soon."
 Waltzes—Eddy Shaw's Hawaiians, "Under the South Sea Moon."
 10.48 : Carter's Orchestra, "Daddy's Lullaby."
 Foxtrots—Bob Haring and His Orchestra, "Love Made a Gipsy Out of Me" (Phillips-De Costa-Zimmerman).
 Ray Kemp and His Orchestra, "I Love You, Believe Me, I Love You" (Cowan-Bartholomae-Boutelje).
 Bob Haring's Orchestra, "Georgia Pines" (Trent-De Rose).
 11.0 : God save the King.

Sunday, November 30

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, NOVEMBER 30.

- 3.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.
 6.0 : Children's song service, conducted by "Uncle Bert."
 6.55 : Relay of Divine Service, Auckland City Mission, from the Church of Epiphany. Preacher, Rev. Jasper Calder; Choirmaster and Organist, Mr. John Tait.

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120 WILLIS STREET, WELLINGTON.

- 8.30 (approx.) : National Military Band, "Ben Hur" (Byng).
 Baritone—Mr. Norman Day, (a) "Border Ballad" (Cowen); (b) "Old Barty" (Grant).
 Instrumental—Studio Trio, "Nocturne, Op. 148" (Schubert).
 Vocal duet—Madame Cora Melvin and Mr. Norman Day, "April Morn."
 Violin—Mr. J. Whitford Waugh, "Romance" (D'Ambrosio).
 Choral—Don Cossacks Choir, "Evening Bells" (arr. Serge Jaroff).
 Instrumental—Studio Trio, (a) "Melody Pathetique" (Beethoven); (b) "Scherzo from Trio, Op. 19" (Widor).
 Soprano—Madame Cora Melvin, (a) "A Little Coon's Prayer" (Hope); (b) "When the Dream is There" (D'Hardelot).
 Studio Trio, "Scherzo, Trio 1, Op. 32" (Arensky).
 Vocal duet—Madame Cora Melvin and Mr. Norman Day, "A May Morning" (Denza).
 Black Diamond Band, "The Last Good-bye" (Moretti).
 God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, NOVEMBER 30.

- 3.0 to 4.30 : Afternoon session of Selected Gramophone Records.
 6.0 : Children's Song Service, conducted by Uncle George, assisted by the Kilbirnie Presbyterian Sunday School Choir.
 7.0 : Relay of Evening Service of St. Gerard's Redemptorist Church.
 Organist: Mr. H. Mount. Choirmaster: Mr. F. J. Oakes.
 8.15 : (Approx.)—Studio Concert by the Wellington Municipal Tramways Band (Conductor, Mr. E. Franklin), and 2YA Artists.
 Overture—Band, "Morning, Noon and Night" (Suppe).
 Soprano—Miss Nora Gray, (a) "From the Land of the Sky Blue Water" (Cadman); (b) "The Lover's Flute" (Cadman).
 Zonophone Salon Orchestra, (a) "The Call of the Angelus" (Walton); (b) "Fairy Tiptoe" (Walton).
 Baritone—Mr. H. Mitchell, "Friend o' Mine" (Sanderson).
 Selection—Band, "Scheherazade" Parts 1 and 2 (from "A Thousand and One Nights") (Rimsky-Korsakoff).
 Contralto—Miss Jessie Smith, (a) "If Thou Wert Blind" (Johnson); (b) "Just You" (Sampson).
 March—The Band, "Twentieth Century" (Ord Hume).
 Weather report and station notices.
 Organ—Terence Casey, "Devotion" (Ketelbey).
 Soprano—Miss Nora Gray, "The Willow" (Goring Thomas).
 Cornet duet—Bandsmen W. Stevenson and J. Farrell, "Ida and Dot."
 Baritone—Mr. H. Mitchell, (a) "The Lute Player" (Allitsen); (b) "Absent" (Metcalfe).
 Selection—Band, "Scheherazade" Parts 3 and 4 (from "A Thousand and One Nights") (Rimsky-Korsakoff).
 Contralto—Miss Jessie Smith, (a) "A Morning Hymn" (Henschel); (b) "A Hundred Moonlit Miles Away" (Tivy).
 Xylophone with band accompaniment—Bandsmen J. Michel, "The Islander March (M.S.S.).
 Choral—Marise Beaujon, M. Bordon and Chorus, "Church Scene" (from "Faust") (Gounod).
 Patrol—Band, "Jungle Drums" (Ketelbey).
 March—Band, "The Middy" (Alford).
 God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, NOVEMBER 30.

- 3.0 : Afternoon session—Gramophone recital.
 5.30 : Children's Song Service, by children of the Salvation Army.
 6.15 : Studio chimes.
 6.30 : Musical recordings from Studio.
 7.0 : Relay of "Salvation Meeting" from "The Salvation Army Citadel," Victoria Square. Conducted by Adjutant Goffin and Mrs. Adjutant Goffin.
 8.0 : (Approx.)—Musical recordings from Studio.
 8.15 : (Approx.)—Relay of programme from 4YA, Dunedin.
 9.30 : (Approx.)—God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, NOVEMBER 30.

- 3.0 : Chimes. Selected gramophone items.
 5.30 : Children's Song Service, conducted by Big Brother Bill.
 6.30 : Relay of Evening Church Service from First Church of Otago, Dunedin. Preacher: Rev. Dr. Stevely. Organist: Dr. V. E. Galway.
 7.45 : Selected recordings from the Studio.
 National Symphony Orchestra, "Stradella" (Flotow).
 Piano—Mark Hambourg, "Hungarian Rhapsody" (Liszt).
 Baritone—Peter Dawson, "Nazareth" (Gounod), "Gesu Bambino."
 Vienna Philharmonic Orchestra, "Morning, Noon and Night in Vienna."
 8.15 : Relay from St. Kilda Band Rotunda of Concert by St. Kilda Band, under direction of Mr. Jas. Dixon.
 9.30 : God save the King.

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More Burgess
Batteries are sold
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than any other.

Why?

Types of Aerial

(Continued from page 3.)

If you have an aerial 50 feet high and it passes over the roof of a building 30 feet high and this roof is connected to earth, then your aerial is not as good as that of your neighbour whose masts are only 30 feet high. Furthermore, a high aerial brings in a considerable amount more noise than a low one. It is interesting to note that whereas static decreases rapidly as height decreases, the signal strength does not decrease as rapidly. This is why many people have two aerials, one only 10 or 15 feet above the ground. They use this on nearby stations when interference is bad. If your aerial is too high try the effect of a series condenser of .00025 mfd.

So much for the height, the length and the situation. Let us consider the other practical points as regards the lead-in, the masts and the insulators, for they are all important. Select good large insulators, and do not be afraid of using plenty of them. The egg insulator is the most common one and you will recognise it by its shape. There is a hole at each end and a groove which runs from this hole down the longer part of the insulator. When connecting the aerial to the halyard arrange the insulator so that one passes through the other like two interlocked rings. This means that if the insulator breaks the wires hold one another. Insulators need cleaning fairly regularly. To facilitate this arrange your aerial on pulleys so that it may be lowered, but do not do as I did when erecting my masts—have the halyard wires thinner than the space between the pulley wheel and its frame. The wire will most certainly jam before the masts are halfway up, and it is not the easiest of tasks letting the mast down and putting it up again, especially if they are steel and liable to break. Specially tarred rope is better than a wire for a halyard.

For the actual aerial wire select fairly heavy stranded wire, with an enamelled coat, as it is much better than the plain wire, which corrodes. Now I know some of you will object to enamelled wire, saying that enamel is an insulator, and therefore must retard the radio waves reaching your set. It certainly is an insulator, but not against the high frequency waves sent out by the transmitter. You will remember I explained to you what frequency meant last week. Directly the waves strike the aerial wire they pass right through the enamel and become changed in form to travel along the outside of each separate wire to your set. If the wire becomes corroded the electricity passing along the skin is retarded. Rubber insulated wire is good, but it is heavy and usually expensive.

SEE that the lead-in drops straight to the set and prevent it turning corners. If possible, arrange your aerial to run back under the overhead wire. The lead can be taken from the dead centre, in which case the length of your aerial is equal to the lead-in plus the distance from the junction to one end. On the other hand, it may be taken from one end, which is the best.

The lead should be insulated, so that it has no chance of touching any metal objects. Keep it off the side of the

house by a stay and an insulator. Particularly avoid twisting it round anything, as this, as those who are technically versed can see, decreases the capacity to earth, and allows some of the power to escape.

Bringing it through the walls to the set is a problem. On one hand we must consider the efficiency of the installation, and on the other the house itself. The best way is certainly to bore a hole through the wall and take a piece of heavily insulated wire through. A less destructive plan is to have a flat strip of copper and solder the aerial lead-in to one end and the wire that is going to the set to the other. Do not use spring clips, as they become corroded and the efficiency is very greatly decreased thereby. If there has been any necessity for joints in your aerial system see that they are soldered and covered well with insulated tape. Try if possible not to have joints, as no matter how carefully they are made they are less efficient than an unjoined aerial.

Now that we have brought the aerial inside we must take it to the set, and here again we must remember the principle that the lead must go as direct as possible. If you have to cross a room it will be better to run underneath the carpet or linoleum than around the picture rail, but if you want good reception make an effort to have this inside lead as short as possible. Above all, do not twist it round nails. If the wire needs support use a stand-off insulator made by having special insulators in dresser hooks.

NOW that the aerial installation is complete let us look for a moment at the ground. With the increase in electrically-operated sets this is losing a great deal of its importance for many of them earth automatically through the mains. Some, I have found, work better without an ordinary earth, but usually a good earth is a slight improvement. With battery sets a good earth is absolutely essential if good results are to be expected. Take your wire from the set as short a distance as possible to a good contact with the ground. This can be a cold-water pipe, a buried copper plate, an old washing copper buried, sheets of iron buried, or a pipe driven 6 feet in the ground.

Here are some facts which will no doubt interest you:—Moist warm earth is the best conductor; cold and dry the worst. Nothing is to be gained by surrounding or filling the earth with charcoal, but salt and water poured over the earth connection ensures a good contact. The diameter of the earth pipe is of no importance, and when several pipes are used they must be separated by 6 feet or more to be effective; 6 feet is the optimum depth in which they should be driven. Not infrequently electrical interference is introduced through the water pipe. Gas and hot water pipes must never be used as earth contacts, neither must the earth be shared with that of the telephone or electric light. Shifting your earth is frequently a means of lessening power interference.

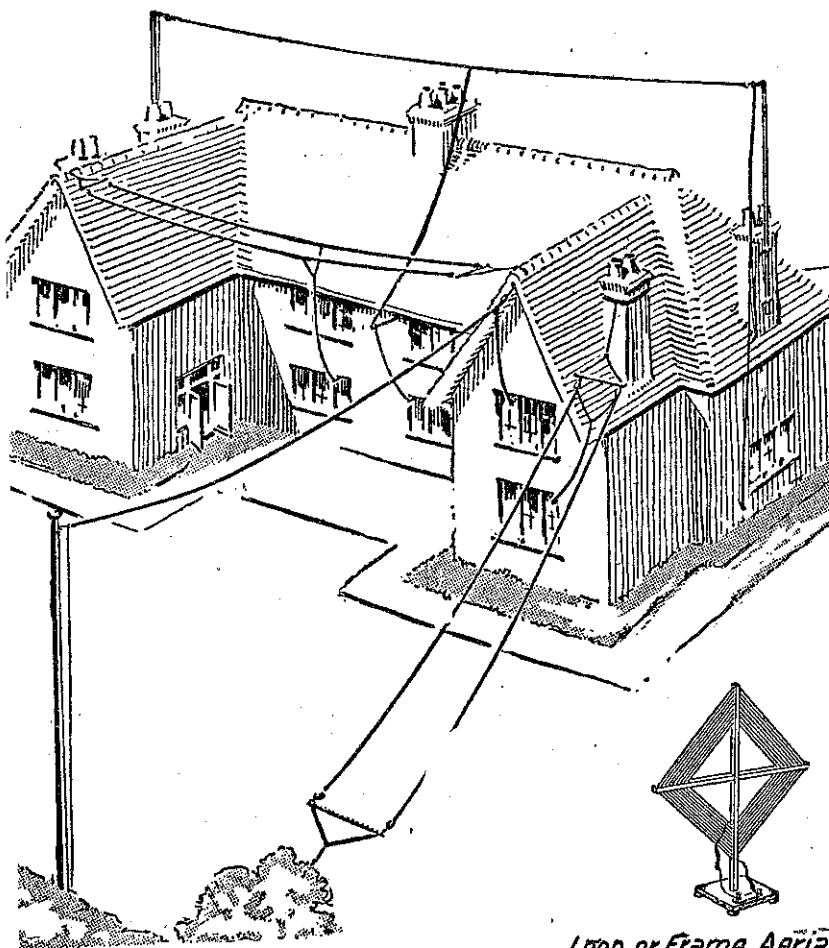
WE have now completed an installation. Let us return to the aerial and consider one or two of the sidelines. Multiple wire aerials attract a great deal of attention, and not a few have asked if two wires are not better than one. If separated by about six feet they are, but they will not give anything like double the strength of one aerial. With an aerial of standard length there is nothing to be gained with multiple wires. Where aerials have to be very short extra wire will be of use. Spreaders of hardwood, well painted, should be used to keep the wires apart.

The electric mains can be used as an aerial if a special adaptor is used. It is not, however, as good as an outside aerial. Inside aerials attract a good deal of attention, principally because they are easily erected and are not unsightly. They can be either between the ceiling and the roof, across the room, or round the picture railing. Although very useful where an outside aerial cannot be erected, it will not bring in very strong signals.

The loop aerial is not very much used. It needs a special aerial circuit, and its action is different from the ordinary aerial. Do not think you can attach the loop to your ground and aerial and binding posts and expect to get results. It must replace the first coil in your set. Loops were compulsory with superheterodyne receivers until an improved model was brought out, which can be worked from an ordinary outside aerial.

Another type of aerial which is very popular in country districts is the Beverage aerial. This is about 850 feet long, but only 6 to 9 feet from the ground, and of ordinary galvanised wire. The distant end is connected to earth through a resistance of about 600 ohms. It is strongly directional and must point in the direction from which the signals are to be received. It brings in very little static, but the stations come in very well. It is well worth trying if one has the room.

The directional effect of the ordinary aerial need not be considered—only when the aerial and lead-in are in a definite proportion, which is impracticable in the ordinary installations is the directional effect of any importance.



Loop or Frame Aerial

Classes of aerials in common use. Of these the inverted L type shown in left foreground is the most common.

The Mawson Expedition

SIR DOUGLAS MAWSON'S exploration ship **Discovery**, which is now in Hobart en route to the south polar regions, has been fitted for the second occasion with Australian-designed and manufactured wireless equipment. This will permit of weekly broadcasts from the Antarctic, giving the Australian and New Zealand public details of the progress of the expedition. Arrangements are being made for the words of the explorers to be re-broadcast by the Australian stations so that listeners may hear them on the ordinary radio receivers. The equipment includes the latest type of short-wave radio apparatus designed to withstand the severe climatic conditions. Preliminary experiments and tests of the installation have proved highly satisfactory. The set may be used for either speech or Morse, and includes emergency apparatus if any unforeseen breakage should occur.

Picture Diagrams of the Loftin-Three

Loftin-Three

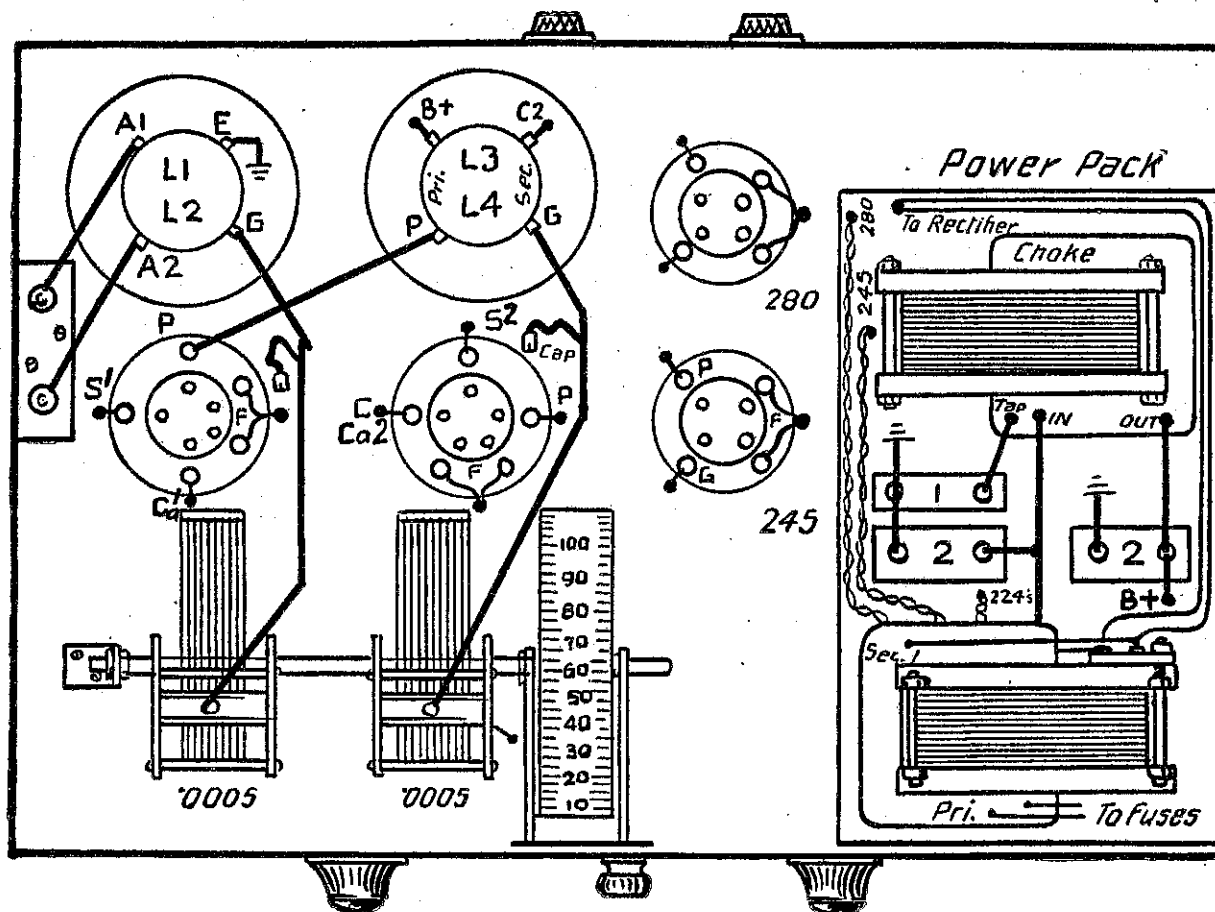
(Continued from page 15.)

a residual hum and this should be balanced out by adjusting the hum-bucking potentiometer indicated in the diagram.

The Radio Side.

NOW that the gramophone pick-up is working properly, try the tuner by rotating the condenser until the local station is brought in. Adjust the moving plates of the condensers until the signal is loudest and then, if there is not a great deal of difference between the settings, tune to another station and bring it to its loudest point by adjusting the balancing condenser. Then loosen the coupler and see if any alteration in the setting will make the signals louder. If it will the coils are not properly balanced and it may be necessary to remove a turn from the coil, the condenser of which requires to be moved outward to get the loudest signals.

If the set is prone to oscillation, remove some of the turns on the primary of the r.f. transformer for the greater the number of turns the greater the transfer of energy and the greater the liability to oscillation. If signals cannot be received, bring the aerial to the grid of the amplifier 224 when the local will be heard. This indicates a mistake in the wiring of the r.f. stage. Make sure the coils are connected the right way round.



Programme Features

(Continued from page 17.)

duetship of Mr. John Bishop, and can be relied upon to give a programme of merit and interest.

From Christchurch

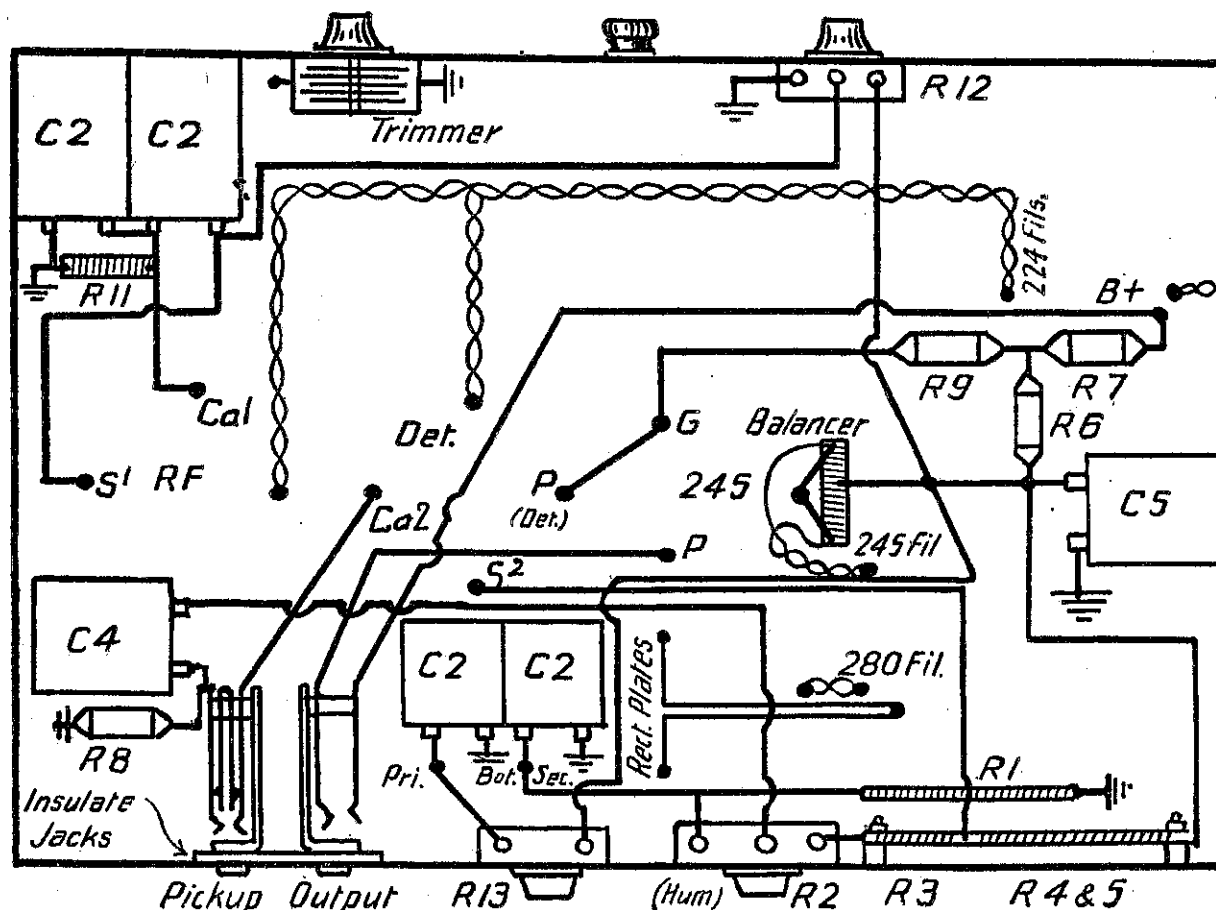
THE Pipe Band of the Caledonian Society of Christchurch has been engaged for its St. Andrew's Day Concert. The band plays under Pipe-Major Charles Gibson, and a rare treat will be provided for lovers of Highland music as expressed in stirring marches, ballads and dances. Pipe soloists will be Pipe-Major Robertson, Pipe-Major McLeod and Piper Shanahan. Introduced into the programme will be a recorded talk by the Rt. Hon. J. Ramsay MacDonald on "Robert Burns—a Man Among Men." This concert will be relayed to 4YA.

Formodensers as Gridleak

A Formodensers (compression type adjustable condenser) makes a good grid leak. It is connected in the circuit in the usual manner and can be simply adjusted to suit the varying needs of different wavebands to be received.—C.F. (Wellington).

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You are not even a 50 per cent. man if you are slave to the smoking habit. We can help you quit it quickly. Home Welfare Pty., A.M.P. Buildings, 36 R. Hunter Street, Wellington.



Weather Reports

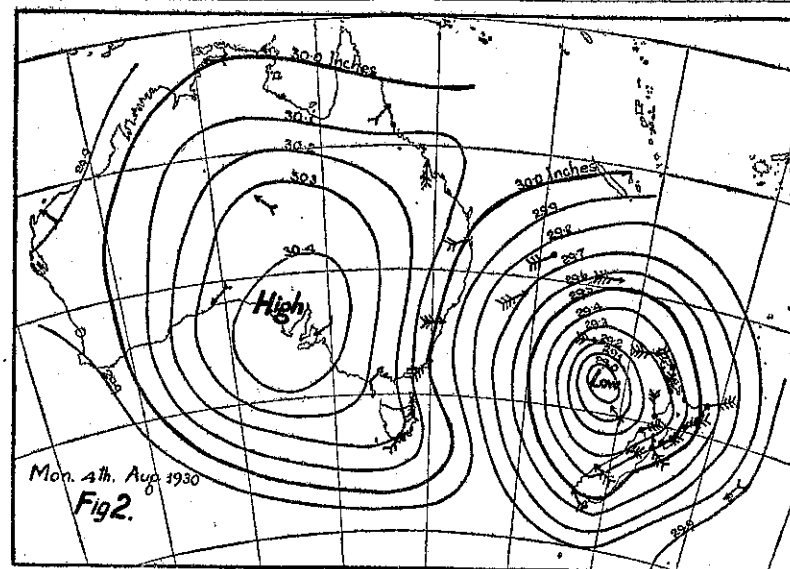
(Continued from page 2.)

south-west and stormy, dull and wet weather is more persistent than with a depression of the westerly type.

In conclusion I may add that the Meteorological Office has printed forms on which the reports may be written as they are received. These forms include a map of the New Zealand and Tasman Sea area and by means of them those interested can draw their own weather charts. The forms are printed in books of 100 and may be obtained from the Meteorological Office, Wellington, at cost price, which amounts, with postage, to 4/-.

Appendix.

IN order to render the above remarks more intelligible and to give a more permanent record, two specimen weather charts have been added in figures 1 and 2. Figure 1 actually shows the chart for 9 a.m. on Saturday, the day on which the address was given. In a figure on so small a scale it is not possible to include all details, so that the isobars and a few of the wind arrows only are shown. The number of feathers on the arrows indicate the strength of the wind on the "Beaufort Scale." An arrow with eight feathers represents a gale, one with four feathers a moderate breeze, and so on. A black dot at the point



of an arrow means that rain was falling at the time of observation. The chart shows anti-cyclones just coming on to Western Australia and over the North Tasman Sea respectively. A rather sharp V-depression has just crossed New Zealand, while one of a more pronounced westerly type is located south of Victoria.

The first-mentioned depression brought only light and scattered showers which fell for the most part in

districts with a westerly aspect.

Figure 2 shows the chart for August 4 of this year. A very good example of a cyclone is located west of the North Island. The isobars curve round a centre of low pressure, around which the winds blows in a clockwise direction. The isobars are close together, or, in other words, pressure gradients are steep, and the winds are therefore strong. The easterly tendency of the winds in New Zealand and the wet weather will be noticed. Over South Australia is centred an anti-cyclone which is an intense one, the pressure being over 30.40 inches at its centre. This illustrates the fact that an intense anti-cyclone frequently has a cyclone to one side of it. The weather in Australia, except along the east coast, is fine with light winds.

extra drain on the eliminator, which is altogether unwarranted, as the g.p. valve can accommodate the grid swing required in the first audio.

3. Which would be the correct output transformer to use with a dynamic speaker, OP3C or 4C?

A.: Use 3C, and take out the transformer already in the speaker.

MOIWHARE (Feilding). Would the Daniel cell charger keep my 120 amp. low accumulator up to scratch?

A.: You appear to be using low consumption valves, and if you do this it should keep it well charged. Leave the charger on continuously.

RAY DIO (Shannon). Can the super het. receiver described by "Cathode" be used as a d.c. receiver?

A.: Yes; the only changes necessary are—

1. The filament circuit of the two valves is completed in the ordinary way, and brought out to two terminals for connection to the batteries.

2. The grid return of the first detector is made to A plus.

3. The grid return of the oscillator is taken to A minus. Otherwise the receiver can be set up exactly as it is.

Modernised Cleaning

SINCE the beginning of broadcasting one of the problems of a transmitter has been that of freeing the insulators from soot or dust. As many listeners know this materially affects the aerial. In some of the biggest stations the only methods have hitherto been to lower the aerial wires, and this was frequently most inconvenient. An American station, WOR, has developed an idea by which a balloon to which are attached special brushes is floated against the insulators. By allowing the balloon to rise and moving it about the insulators they are most effectively cleaned.

RADIO DIRECTORY

What to Buy and Where

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- ACE and HAMMARLUND SETS, Johns, Ltd.
WESTINGHOUSE Rectifiers Chancery Street, Auckland.
- BROWNING DRAKE SPECIALISTS F. J. W. Fear & Co.
63 Willis Street, Wellington.
- BURGESS RADIO BATTERIES, All Radio Dealers.
- KING RADIO RECEIVERS ... F. J. W. Fear & Co.,
63 Willis Street, Wellington
- LOFTIN-WHITE AMPLIFIERS Stewart Hardware Ltd.,
Courtenay Place, Wellington.
- MAJESTIC RADIO RECEIVERS Kirkcaldie & Stains,
Wellington Agents, Lambton Quay.
- MULLARD VALVES ... All Radio Dealers.
- PILOT 1930 PARTS—PILOT SUPER WASP KITS, GILFILLAN, KELLOGG and AT-WATER KENT SETS Harrington's, N.Z., Ltd.,
133-140 Queen St., Auckland.
40-42 Willis St., Wellington.
- RADIOLA RECEIVERS and Farmers' Trading Co., Ltd.,
Expert Radiola Service. Hobson Street, Auckland.
- STEINITE RADIO ... G. G. Macquarrie, Ltd.,
120 Willis St., Wellington.

COUNTRY TOWNS

- MAJESTIC ... Radio House, Hamilton.
G. S. Anchor Manager.
- PHILIPS VALVES AND APPARATUS All Good Radio Dealers.

Questions and Answers

(Continued from page 13.)

your resistances, and if necessary have them measured.

A. P. (Otahu). If you are in doubt about the wiring of any circuit, follow the theoretical diagram. This applies to the case in question.

2. How far apart should be the windings on the coils?—1-8 inch.

3. What is the correct way of tuning?

A.: The dial is turned round with the set oscillating, and when the whistle is brought in reaction is slackened until the whistle disappears. Then reaction and tuning are adjusted until the signals are heard. To receive Morse, the set must be oscillating. To receive broadcast it must be on the verge of oscillation.

M. L.K. (Wellington). Can the super heterodyne super short-wave receiver described by "Cathode" be employed before a super heterodyne receiver?

A.: No, it is entirely unsuitable for such a receiver.

BRASSPOUNDER (Ngukuhau). Could you give details for a c.w. transmitter, and how to get started in the amateur game?

A.: We are at present arranging for a series of articles in this direction.

QUALITY (Auckland). Is it worth while changing a A425 to a screen grid?—Yes.

2. Will the 3002 eliminator supply sufficient current for a four-valve set using two 405's in the last stages in push-pull? I am using 406 as second audio.

A.: Yes, but use a 409 instead of B406 in the first audio. You are placing an

FOR SALE OR EXCHANGE

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

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

OBESITY! One lady reduced from 13st. 8lb. to 10st. 8lb. with Youth-O-Form. 6/6 posted. A. C. Timms, Chemist, Pahiataua.

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

FIGURE reduced 20lb. 6 weeks with Youth-O-Form Capsules without dieting or exercise. 6/6 posted. A. C. Timms, Chemist, Pahiataua.

STALLOY-TRANSFORMER. — Strips 36 x 1 inches, 2/- doz. Other widths proportional. Also supplied cut, punched. Special quantity quotations. Johns, Ltd., Chancery Street, Auckland.

GIRLISH figure can be retained by you if you take Youth-O-Form Capsules. 6/6 posted. A. C. Timms, Chemist, Pahiataua.

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

LOFTIN-WHITE Amplifier, new, with valves, Ferranti Output Transformer, genuine Electrad resistors. Demonstration given. Bargain at £10. Dent, Box 893, Auckland.

Short-wave Notes

Special Ultra Shortwave Tests from Great Britain.

THE R.S.G.B. Contact Bureau advise that the British amateurs are arranging special 28 mega-cycle (10.714 metres) tests, each of 24 hours' duration, commencing at 0000 G.M.T., on January 4, 11, 18 and 25 next.

AN English radio journal states that it has been rumoured that G5SW has been experimenting on 11.5 metres.

W2XL, 23.35 Metres.

THIS station has been heard in Australia broadcasting a test programme from WGY. The time was just after midnight, N.Z. time.

Rebroadcasting Foreign Countries.

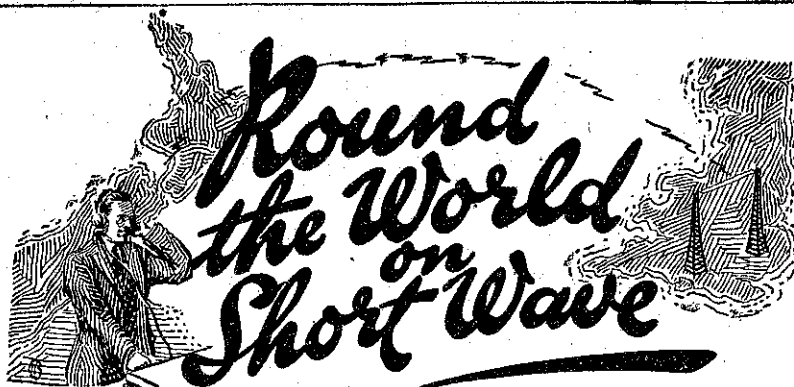
STATION WLW, Cincinnati, has applied for permission to build a new 10,000-watt auxiliary shortwave station, which it proposes to engage in international rebroadcasting, picking up programmes transmitted from foreign countries and rebroadcasting them.

Armistice Service.

ON Tuesday at 10.20 p.m., G5SW was tuned in, when the weather forecast was being read. Reception was perfect at full loudspeaker strength. The order of the service to be held at the Cenotaph was given. This was followed by selections till 10.54 p.m., when, after some military orders, the massed bands played the Dead March. Big Ben striking eleven came through clearly. The "Last Post" was followed by the hymn, "O God, Our Help in Ages Past," by the bands and people.

The prayer by the Bishop of London, Lord's Prayer, and Benediction was easily readable. After "Reveille," the service concluded with the National Anthem. Volume was good all through with a very slight surge from just before 11 p.m., but not enough to spoil readability.

With such good reception of this service, it was anticipated that the King's speech on the following evening was likely to "come over" well. In this we were not disappointed. G5SW was on the air "carrier" only, from 11.30 p.m. At 11.53 p.m. the following day's programme was given. Later, another speaker gave the order in which the speeches were to be delivered from the House of Lords. Just after midnight his Majesty the King was heard. His speech, which continued till 12.7 a.m., was 100 per cent. readable. After listening to the next speaker for a few moments I closed down, satisfied that perfect reception of G5SW is possible here sometimes.



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

Volume, as on the previous night, was maximum. Slight static, not enough to be troublesome, was the only defect.

I believe others picked it up well—viz., this from the "Otago Daily Times": The broadcast of the Armistice Day service in Westminster Abbey, London, through 5SW, Chelmsford, England, shortwave, this week was clearly picked up by Mr. W. Taine, of Karitane. The programme included "The Last Post," the hymn, "O God, Our Help in Ages Past," the Lord's Prayer by the congregation, finishing with "God Save the King." This transmission came over the air practically perfect, and certainly was a great compliment to the endeavours of the wireless experts.

Log for Week

STATIC has been very bad during the greater part of the week from about 35 metres upward, being much worse as the wavelength is increased, making listening impossible on the 50 metres band, also RV15.

RV15, Siberia, 70 metres—Too much static most evenings.

67 Metres (about)—Very distorted music at R6 was heard on Monday after 10 p.m.

W9XF, Chicago, 49.83 metres—Good volume till 7 p.m. Static bad several evenings.

Radio Saigon, Indo-China, 49 metres—Monday, music till 10 p.m., talk after spoilt by morse.

W3XAL, Boundbrook, New Jersey—Each evening till 6 p.m. excellent volume and quality.

W8XK, Pittsburgh, 48.86 metres—Sunday, 4.30 p.m. R3, usual messages to the Far North.

W9XAA, Chicago, 49.34 metres—Sunday and Saturday afternoons R7 at 5 p.m. Again at 11 p.m. Saturday at R8.

KIXR, Manila, 48.86 metres—Each evening (except Monday), from 10 p.m. Is better now on 24.4 metres, being more free from morse interference.

HRB, Honduras, 48.5 metres—Saturday afternoon, music till 5 p.m., when they were R8. Long announcement afterward. I have often heard this station before, but never the call. Their modulation is very rough. Besides being gurgly there is an echo when talk is on.

45.4 Metres (about)—Still heard each morning, but not identified yet. Bugle is sounded before announcements.

43.2 Metres (about)—Another stranger on Tuesday morning at 6.10 a.m. Man singing first, R6. Talk, which was foreign, was distorted; no call heard.

GBS, Rugby, 42.9 metres—Sunday at 5 p.m. R7, talking duplex with WNID America, 44.4 metres; trans-Atlantic 'Phone.

W2XAF Schenectady, 31.48 metres—Sunday and Saturday, reaching R8 by 3.30 p.m.

Zeessen, Germany, 31.38 metres—Very weak each morning. Not heard after 8 a.m.

WIXAZ, Springfield, Mass., 31.3 Metres—Saturday, till signing off at 4.48 p.m. R7, 3.30 p.m., increasing to R8-9.

PCJ, Holland, 31.28 Metres—Thursday, Friday, and Saturday mornings, about R8 at 6 a.m. to just audible by 7.30 a.m.

NRH, Costa Rica, 30.8 Metres—R4 at 3.45 p.m., very difficult to understand. Was calling several times, "Hullo, Australia," and "Hullo, Tasmania." When I heard from NRH, they had not been reported from Australia. They signed off at 4 p.m., played a band item, and went off the air.

WNC, America, 30.77 Metres—Transatlantic 'phone station, R7 on Saturday afternoon.

LSH, Buenos Aires, 29 Metres—Sunday and Saturday afternoons. Reaches R9 by 3 p.m., quality not quite so good as a week or two ago.

20.5 Metres (about)—Monday morning at 7.30, very distorted talk was heard at R4.

FZR, Saigon, 24.9 Metres—Duplex on Thursday and Friday evenings, R9, excellent quality.

W8XK, Pittsburg, 25.25 Metres.—Heard nearly every morning, about 7.30, usually weak, but R7 on Tuesday, with musical programme.

FTN, Paris, 24.46 Metres.—Duplex several evenings; very good volume.

38.8 Metres (about).—Often on duplex at the same time as FTN, maybe with them, all foreign talk.

Radio Manila, 24.4 Metres (about).—This station comes in quite well on this wavelength now, but is subject to interference by FTN on about the same wavelength.

G5SW, Chelmsford, 25.53 Metres.—Still very poor each morning, night time reception reported earlier in these notes.

PLG, Java, 18.8 Metres.—Wednesday, at 10.20 p.m., R8, counting in English, until I got tired of it, and left him still counting.

Red Propaganda

Broadcast in Several Languages

"RED" propaganda from Russia is being sent over the air in increasingly large amounts. Only recently a Wellington listener picked up RV15 on a special "all-Red" programme, the speeches of which were made in English. It was a direct attack upon the capitalist system and a special message was sent to American workers urging them to overthrow the present system.

So obnoxious has it become in Europe that at least one station is taking effective measures to counteract the influence. It appears that these "all-Red" broadcasts are sent out in many languages. When the Rumanian sessions are due this station operates on a frequency almost identical with that of the Russian station. This is known as "jamming," and the result is a heterodyne beat note which listeners receive as a whistle. Neither station can be heard and all the good Russian propaganda goes on an unsympathetic air.

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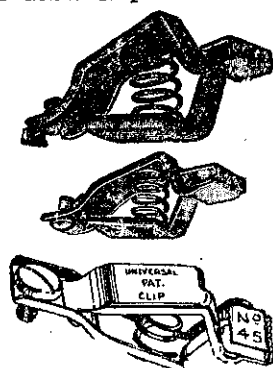
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WITH so many women drivers about, it is rather surprising that no motor manufacturer has yet thought of producing a car specially to meet the needs of women. There are several features, each present individually in various cars, which women would be glad to find combined in one ideal car, such as self-changing gears, and a one-shot lubrication system to abolish messy oil-gun jobs. Then, in the body-work, a sunshine roof which could be opened or closed with a turn of a handle, would be greatly appreciated, especially if met with in the same car as one containing a roof-net for parcels, large lockers at each end of the dashboard, a neat umbrella holder and a collapsible carrier for the baby. Certain it is that the market is waiting, and it should be a most profitable one, too.

MOST of you have travelled and most of you have studied Bradshaw, but I wonder if any of you have seen an edition about 1839. In those days it was about the size of a season ticket, and consisted of eight or ten pages bound in stiff cardboard. It cost 6d., and only the starting times of the trains were given! They were wise in those days! There were six trains a day from Manchester to Liverpool, and the fare was 6/- inside, and 4/6 outside. This does not seem expensive for thirty-one miles. In this Bradshaw is also a list of coach fares, the fares for which were reckoned in yards: 1000 yards cost 1/-, 1700 yards cost 1/6, and 6d. extra for every additional 700 yards.

THE introduction of touring mannequins in the spring proved such a success (says the "Daily Mail") that several troupes are rehearsing for autumn tours in the provincial towns of England. They are organised like touring theatrical companies, and include a demonstrator, a cutter, a

"Genius," said Sir Edward Elgar, "I have always been told, is an infinite capacity for taking pains. But a good many of our youthful musical geniuses seem to think that it consists in an infinite capacity for giving pains."

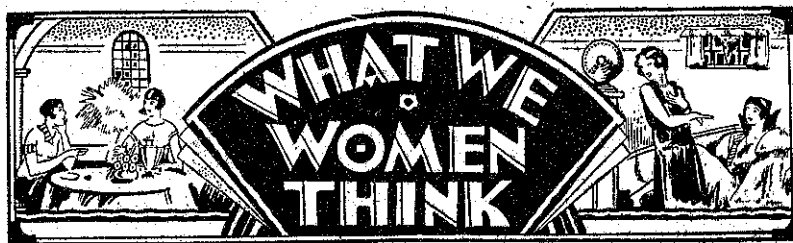
"It is the hollow hearts that make the most noise in the world." (Merriman.)

matron mannequin, several girls and sometimes a dresser who attends to the transport of the cases of frocks and gowns. The two troupes are being sent out by the Calico Printers' Association to demonstrate to middle-class housewives how attractive British-printed fabrics can look when made up into morning and afternoon frocks and evening gowns. While the demonstrator explains how sufficient materials for the frocks can be bought for less than £1, the mannequins parade among the audience. Women who buy dress-lengths will receive patterns made by the cutter.

IF you have difficulty in growing parsley outside, plant some seed in a pot, and you'll find it grows easily indoors, and you will have it to hand in the kitchen whenever you need it.

H. G. WELLS suggested in 1901 that before the year 2000, and very probably before 1950, a successful aeroplane would have flown and come home safe and sound. At that time he was considered a very extravagant young man; nowadays we think him a little behind times.

THERE are many uses for bran besides making bran-water to stiffen cretonnes. A small bag of bran, scented as desired, is excellent in the bath, the water of which will be soft and will have an excellent whitening effect on the skin. For dry-cleaning furs, easy chairs covered with cretonnes and the like, two large bowls of bran should be heated in the oven and the warm bran rubbed well into the fur or other article to be cleaned, working it in thoroughly with the finger-tips. One bowl of bran should be used while the other is being warmed up. Afterwards



the dry bran should be brushed off and the treatment repeated if necessary. Suede shoes may be cleaned by making a paste of benzine and bran, coating the shoes with this (working out-of-doors), leaving until dry, and finally shaking and brushing the shoes.

THE Sanger family, who were brought to life by Miss Margaret Kennedy in "The Constant Nymph," are to continue their existence in "The Fool of the Family," which is the title of Miss Kennedy's new novel.

DR. WILLIAM SPOONER, famous for his invention of "Spoonerisms," died recently at Oxford, where he was warden of New College for twenty-one years. Dr. Spooner, who was eighty-six, from time to time denied the authorship of many of the slips of speech attributed to him, declaring that the Oxford undergraduates themselves composed many of them. The only really authentic "Spoonerism" is said to be: "Kinkering kongs their tikles tate," for "Conquering kings their titles take." Be this as it may, the worthy Dr. Spooner is supposed to have announced that he was going to London from Oxford "by the town drain," that he was tired of addressing "beery wenches," and that at weddings it was "kistomarry to cuss the bride." Certain it was that Dr. Spooner was absent-minded, and in illustration of this he is said to have solemnly kissed the porter and handed his wife sixpence when she came to see him off at the station. And again, he spent a whole day looking for an inn called "The Dull Man," at Greenwich, when he really wanted "The Green Man" at Dulwich.

"PUNCH" says "An American inventor's scheme to keep entire families warm in unheated houses in the coldest weather, by means of radio, is understood to be quite distinct from the idea of utilising hot air from the loud-speaker."

Thought for the Week

A British diplomat once gave the official definition of a lie—a falsehood told to a person who has a right to the truth.

—Upton Sinclair in Boston.

"WHAT women think of electricity," said Mr. Borlase Matthews at the annual meeting of the Birmingham and Midlands branch of the Electrical Association for Women, "is shown by the fact that Birmingham workshop turns out 5000 electric flatirons and over 2000 electric kettles a week, and it must be borne in mind that there are other competing factories making similar articles." He goes on to say that: "In the town the coming of electricity has been a boon to women, in that it has given them a form of easily available power for the performance of their household tasks; but in the country it is going to revolutionise the social and economic aspects of the lives of the women. It is going to give them leisure. In the coming decades the farmer must turn to electricity as a means of increasing his production, cutting out time wastage, and, as a result, he will make a profitable living.

MR. A. P. HERBERT, or more familiar to us as "A.P.H.," has been writing the dialogue for a talkie called "Windjammers." Most of this work was done on his boat "The Ark" in which he tours the canals of England. As A.P.H. was among the overseas Press Conference visitors to New Zealand some years ago, it is to be hoped that New Zealand will soon enjoy this talkie, and it is bound to be as refreshing and entertaining as its title suggests.

"PUNCH" tells us that "Critics of wireless in the Free State complain of too much Erse in broadcast. Listeners-in have difficulty in distinguishing their own language from atmospherics."

IN Lord D'Abernon's diary is recorded a conversation with Kuehmann, who was at the German Embassy at Constantinople during the attack on the Dardanelles. Kuehmann relates how when the British Navy retired, the Turks had only thirteen rounds of ammunition for each gun.

I AM a strong advocate of glycerine, and I thought our readers would like to know the chief uses for which I use it. It is wonderful for the complexion after it has been subjected to strong, dry, northerly winds, and it should be used just after washing, and then it will do all that a girl who cares for her appearance can wish. It is also excellent for dry hair. Use: 8oz. glycerine, 8oz. oil of sweet almonds, 8oz. lime water, 1oz. tincture of cantharides. Shake well before using and rub well into the scalp daily.

RATHER more sensible than usual is the following slimming diet, which has been tried successfully by several people: Breakfast.—One pint of tea or coffee; nothing to eat. During the

Flattery pleases very generally. In the first place, the flatterer may think what he says to be true; but in the second place, whether he thinks so or not, he certainly thinks those whom he flatters of consequence enough to be flattered.

forenoon a drink of lemon squash, made from fresh lemons. Lunch.—Fish, or an egg dish, followed by lamb, mutton, veal or lean beef, with salad and some green vegetables or tomatoes; fruit. Tea.—A cup of tea. Nothing to eat. Dinner.—Same as lunch. Stewed fruit may be taken instead of fresh fruit. Last thing at night another lemon drink; no bread or flour in any form in the diet, and it is imperative that no liquid be taken during meals.

FROM time to time there have been prophecies, but probably the most famous is that of Mother Shipton, of which our grandmothers told us. These predictions were originally published in 1448. It will be noted that the world was to have come to an end forty-nine years ago:

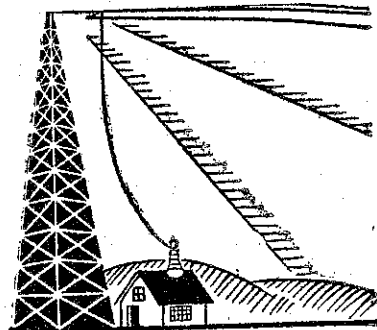
*Carriages without horses shall go
And accidents fill the world with woe.
Around the earth, thoughts shall fly
In the twinkling of an eye
The world upside down shall be,
And gold be found at the root of a tree.
Through hills man shall ride,
And no horse be at his side.
Under water men shall walk,
Shall ride, shall sleep, shall talk.
In the air man shall be seen
In white, in black, in green;
Iron in the water shall float
As easily as a wooden boat.
Gold shall be found and shown
In a land that's not now known.
Fire and water shall wonders do,
England shall at last admit a foe.
The world to an end shall come
In eighteen hundred and eighty-one.*

THIS has been an exceptional season for spring flowers. I don't think I have ever seen them in such profusion before. I was visiting a home the other day, and as we entered the drive on either side were masses of tulips and forget-me-nots which confronted us in one blaze of colour. The glorious colours of the tulips mingled with the blue of the forget-me-nots was a sight never to be forgotten. At this same home they have a special part reserved for the iris, and they have arranged an informal grouping of many varieties. We are to see this in all its glory next month.

MARRIAGE should constitute an eminently fair partnership (says Ursula Bloom in "The Queen"). Too often it is divided into one demanding all the freedom and liberty, and leaving the other partner to work and wait on him, and deal with the more mundane side. Marriage, to be successful, should be share and share alike. There are too few friends in marriage. If you treat your husband as a lover and do not make a friend of him, something is bound to go wrong. Lovers, yes, but not all the time. Friends, undoubtedly and definitely, all the time. Marriage is something approaching a divine friendship if it runs along the scheduled lines.

—ALISON.

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At Last---Flats for Business Women

Wellington Supplies Long Felt Want

RECENTLY the prosperity of Wellington has been showing itself in a very marked degree. One has only to look from the harbour to see how rapidly the building outline is changing, almost daily, and their building is silhouetted.

One of the latest buildings to join the Regiment of Prosperity is that of Batchelor Flats for Business Women, which have been erected on the Terrace and are just nearing completion. Wellington women have for a long time needed such a home, and they now have an ideal corner for their own.

I had the pleasure this morning of viewing them with a friend, who has just taken one of the flats. They consist of a hall, living room, kitchen, and bathroom. That sounds useful, but prosaic, but when I tell you the contents you'll be captivated.

In the hall there are cupboards for umbrellas, coats, or anything else one needs to put out of the eye of vision. Then, in the living room, there are windows taking up nearly all one side of the room, and cupboards half another side. But, wait until I tell you, these cupboards hold real secrets. One has her room artistically furnished and may entertain friends to bridge round, a glowing radiator, and when they go one approaches the cupboard and by "open sesame" two beautifully-made beds pull down as easily as opening a door. The bedclothes are kept on them, when tilted upward, by bed clamps and also by doubling over the bed head. They are wonderfully made of steel, and every part is beautifully finished. There is a multiplicity of springs, which makes them the most inviting beds one ever saw.

In the other cupboard is another wardrobe, which appears not to have existed.

The bathroom is ideal. It is painted in a soft-coloured green, and (joy of joys!) hot water is supplied all day long free of charge. The flooring is Fama, and there is a long nickel-plated towel rail fixed ready for use. A cupboard in which is a chest of drawers, a mirror, table, and shelves, and another cupboard still above this is cunningly concealed.

THE flooring of the entire flat is covered with malthoid, and then on top of that thick, expensive linoleum. Really, the whole flat needs very little furniture, and the kitchen needs nothing more than some stools, which can be stowed away under the built-in table, half of which is made to lift up for extension purposes.

There is a quaint little device for the milk. This has a cupboard door in the kitchen and another in the main hall, by which the milkman on his rounds is able to leave the bottle conveniently placed.

As well as the drop-table in the kitchen, there is a dresser with drawers, shelves and cupboards, and there is also a safe. The non-splash taps,

and the electric stove which each flat contains are really very modern. The main entrance of the general building is tiled, and with the swing-doors create a most mansion-like effect.

The roof garden has many attractions, for not only is there sun all day, but also a magnificent harbour view. For those tenants who have not sufficient faith in the bag wash, there are three wash-houses, with penny-in-the-slot gas-meters. Each flat is provided with a rubbish tin, which is emptied each morning by the caretaker.

In the basement there is a large room for storage of boxes, with special places for each tenant's possessions. Arrangements have been made for a caretaker and his wife to live

Alone

A SEAGULL in the evening mist,
His wings by dying sunlight
kissed,
Came flying past; alone, gold-lit.

A mountain, rugged, awful, grand
Whose beauty none could under-
stand,
Stood silent by; alone, austere.

And I remembered truly then
Him who was killed by angry men
These years ago; alone, unloved.

—D.A.S.

Practice Self-Discipline

HOW many cigarettes can one smoke in the course of a day without undue injury to one's health? Apparently it all depends on how one smokes. The organs that may be harmed by over-indulgence in smoking are the heart, the nerves and the sight. If the heart is irregular, if the hands tremble when held out, if the vision is impaired ever so slightly, then the amount smoked should be cut down. Not all at once, however, but by gradual stages, such as refusing to smoke before lunch or on an empty stomach. Open-air exercise is helpful in overcoming the temptation to smoke, and plenty of the sugar element in food is essential during the period of self-discipline.

Knowing What You Want

THE summer school of the Drapers' Chamber of Trade was held recently at Girton College, Cambridge. During the course a discussion arose as to which women are the best, and which the worst, kind of shopper. All agreed that the easiest customer to deal with is the masculine woman who knows exactly what she wants. Her attitude is: "If you haven't got it, say so, and let me get away." The most difficult customer is the daughter who goes shopping with her mother. The daughter generally knows exactly what she wants, and is determined to have it; while the mother is equally determined that the daughter shall have what she considers best for her. Generally it ends in a squabble with the assistant in the midst of it trying to please both parties.

A Golden Garden

HAVE you ever tried having a "golden garden"? You know, there is a tradition that yellow flowers are the oldest of all. There are many golden flowers, and if you would like to experiment and see what you think of the blaze of gold, try planting sunflowers, golden Irish yew, pansies of every hue of yellow, golden rain, clumps of golden rod, Iceland poppies, evening primroses, geums, yellow irises, wallflowers, promroses, daffodils, crocuses, and others. I have only just commenced mine.

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Original Recipes

By

Frank Hilton

As broadcast from
2YA, Wellington

Queen Drops.

Ingredients: ½lb. butter, ½lb. sugar, ½ozs. flour, 2ozs. cornflour, ½lb. eggs, weighed in their shells, 4ozs. currants, pinch baking powder.

Method: Mix all these exactly the same as fairy cakes.

Queen drops are baked on sheets of paper the same way as sponge kisses, etc. The best way of dropping them on the paper is to make yourself a biscuit bag; these are made of strong calico in the shape of a clown's or pierrot's hat, and have a tin biscuit tube at the pointed end. If you haven't a biscuit tube, file the end off a large thimble and put this in the end of your bag. The flanged edge can then be bound to the calico with strong cotton. You will see the idea is to make a kind of funnel to force the mixture through into little round drops, about a thimbleful, on to the paper. Space them nicely apart as they will swell considerably in baking. See that the pieces of paper are no larger than the oven shelves. You can load up all your papers, gradually screw up your bag as the mixture is forced out. It does the drops no harm to stand until the previous batches are cooked. They require a good solid oven, about 300 degrees Fahrenheit, and when cooked should be rather a rich brown colour.

Bake on plain white paper, no greasing necessary. Remove from papers when cold. They will keep a considerable time in tins.

Boiled Fruit Pudding.

BY fruit pudding is meant that it contains fresh fruits, such as apples, plums, gooseberries, rhubarb, etc. For the size we are going to make we will need a pint and a half or a two-pint pudding basin nicely greased with butter.

Ingredients: 1lb. flour, ½oz. baking powder.

Method: Sieve both together and put into mixing-bowl, then rub in 4ozs. butter and make into a firm dough with cold water. Roll the dough out on the table nicely, without wet patches, to the thickness of half an inch. Lift it up and drop into greased basin, lining it all round with half an inch of dough. Then prepare your fruit and place it in the basin lined with dough, adding some sugar according to the kind of fruit used. Trim the edges of the dough round the top of the basin. Now take the remainder of the dough and fasten it over the top of your pudding, moistening the dough so that the lid will stick and not allow the syrup and juices to boil out. Your pudding is now ready for cooking. If it is to be steamed you need only lay a piece of butter paper over the top to keep out condensation. If it is to be boiled you will need to tie a cloth over the top. Boil or steam for two hours and your pudding is ready for serving.

Fruit puddings should be served hot with cream, syrup, butter, or any sweet sauce you may fancy.

Madeira Cakes.

A MADEIRA is a plain cake, something like a sponge, only more solid and more substantial. For the quantity I am going to give we will need two tins, each holding about 2lb. of raw mixture; the mixture will increase by half its original size while in the baking. The tins must be lined with grease-proof or butter paper, and if your oven has too much bottom heat—as is generally the case—cut a few layers of newspaper and put them in the tin before the grease-proof paper. Newspaper is a wonderful non-conductor of heat in an oven.

Now for the recipe. The cakes we are to talk about this week are cheaper to make than the previous ones, but will not keep fresh so long.

Ingredients: ½lb. butter, 1lb. sugar, 7 eggs, 1½lb. flour, 1 ounce baking powder, mix with fresh milk.

Method: Weigh the butter and sugar into a mixing-bowl, slightly warm them over the fire or gas or something. Do not oil the butter or the cake will have large uneven holes when cut. When you have the butter and sugar nice and warm, with the right hand beat it up to a nice light cream, the more you beat the nicer your cakes. It will need a little practice, but persevere and you will get there. Now add the eggs one at a time, beating well between each addition. When the eggs are all in your battle is over. All you have to do is to add the flour and make into a nice firm mixture with the milk. I couldn't really give you the exact quantity of milk because some

of you may have larger eggs than others and some may have softer butter than others; but the consistency has to be so that it does not run flat in the tins; the mixture should be about like whipped cream. After the mixture is in the tins sift or sprinkle a little icing-sugar on top, not much, just a shade. This will cause the top to crack and give that beautiful cauliflower appearance so much desired.

Bake in a moderate oven about 250 degrees Fahrenheit. They should take about three-quarters of an hour to bake, but it is dangerous to give times, so somewhere round about that. When cooked leave in tins till cold, and leave paper on until cake is to be used. The interior should be a nice even crumb; the crust should be a very rich brown, and when cut should be as thin as possible. No essence of any kind must be added; the ingredients mentioned give all the flavour that is required in a Madeira.

Nut Bread.

NUT BREAD is something that can be buttered, toasted and eaten like bread.

I was once asked to judge a show, and the nut bread there resembled cake containing nuts more than any kind of bread. Nut loaf is not a cake, but a loaf raised with baking powder only, and should be slightly sweet and contain nothing but chopped walnuts. Here is the recipe:—

Ingredients: 1lb. flour, 3 ounces butter, 2 ounces sugar, ½ ounce baking powder, 2 ounces chopped walnuts.

Method: Weigh the flour and powder into a mixing-bowl; rub in the butter until it is quite fine, then dissolve the sugar slightly in a little milk to soften the grain. Mix all into a nice firm dough, and when about three-parts mixed put in the walnuts carefully. Knead up into small loaves and bake in greased tins. Take them out of the oven as soon as they are cooked, as they must not be dried. They require an oven about 300 degrees Fahrenheit. They are rather nice for lunches, etc., but will not keep fresh long.

Christmas and New Year
Holidays

REDUCED RAIL FARES!

15

15

15

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

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

Remember the Dates—the Three Fifteens.

Save over 5/- in the £

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YOU'VE known your set to flirt with facts . . . to suggest that the singer had a cold or the announcer a megaphone.

That's easily remedied—by the substitution of one or more of your valves with

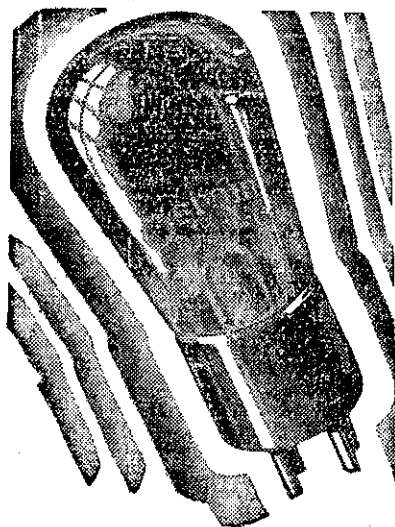
L.610

the battery-operated Osrams.

Ask your dealer for Osram Valves—they are of sturdy, honest British manufacture.

If you cannot obtain the valve you need, it will be sent direct, safe delivery guaranteed.

The "Osram Valve Guide"—a helpful little book—will be sent free on request.



A general purpose valve with very low A and B Battery Consumption.

SPECIFICATIONS

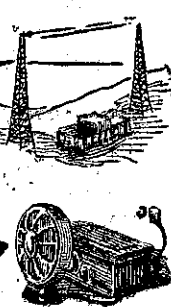
Fil. Volts 6.0
Fil. Current1 amps.
Plate Volts 150 max.
Amp. Factor 15
Impedance 7,500 ohms.
Normal Slope 2.0 ma/volts
Equivalents UX201A, A615, PM5D

Osram Valves

Made in England

Advertisement of the British General Electric Co. Ltd.
Branch Office and Public Showrooms: 31-37 Taranaki Street, Wellington

Radio Round the World



Wavelets

Stations within 100 miles of the American coast must cease their transmissions when a ship signals the S.O.S.

The beacon service in the United States now possesses 78 radio beacons, scattered along the coast of the Atlantic, the Pacific and the Great Lakes.

The Norwegian Government is taking over broadcasting in that country and leasing out the programmes. In 1934 there are to be 43 main and relay stations.

It is estimated that over 2000 schools in France have been equipped with radio receiving sets.

TWO giant valves, measuring each 7 feet high and requiring 5 tons of water an hour for cooling purposes, constitute the nerve centre of the new KDKA station at Saxonburgh (U.S.A.). These valves are each rated at 200 kilowatts.

THE new station of Chi-Hoa, near Saigon, French Indo-China, with a power of 100 kilowatts, transmits on 49 metres. The station is owned by the Indo-Chinese Film Corporation and broadcasts between 12.40 p.m. and 2.40 p.m.

"**S**TEP in, sir, and choose your station," is the slogan of an enterprising French radio dealer who is touring Brittany with a radio-equipped car. Free technical advice is given to every inquirer.

THE Americans are actively taking up the installation of radio in motor-cars. A fleet of 5-16 cylinder radio-equipped cars are on a demonstration tour of Europe. They intend to first cross the North of Europe, then Belgium, Holland, Denmark, Scandinavia, Germany, and Austria. Then they will proceed to Switzerland and afterward return to France.

THE American journal, "Sound Film," which represents the sound film industry, states that the telecinema is being enthusiastically pushed in America. Mr. J. Snitmar, the president of Radio Pictures, has himself given a practical solution for the exploitation of the telecinema. The apparatus will be rented to those requiring it for the sum of one dollar a week, the transmitting apparatus can be installed in any ordinary room and the pictures be broadcast to all the

cinemas that possess the necessary receivers. The number of these installations are anticipated soon to reach several millions, and bookings have already been heavy. Sound telecinematograph will soon be an accomplished fact.

AN American aviator flying over Buenos Aires at an altitude of nearly 4000 feet recently conversed with the captain and officers of the liner Majestic, which was at the time 450 miles from the English coast. The conversation was perfectly clear and lasted seven minutes during which time the pilot gave his impressions of the city and invited his hearers to his club on their arrival in New York.

DURING recent experiments in which Senator Marconi, the inventor, carried on communication with Sydney, from his yacht anchored near Genoa, Italy, a message from Marconi coming over 11,000 miles of space was recorded on a gramophone record at Sydney, and later retransmitted to the sender. The test led to a discussion of the feasibility of "bottling" important radio programmes in like manner for rebroadcasting.

WIRELESS is developing rapidly in Germany. During the last four years the number of listeners have increased at the rate of half a million annually, the actual number being now 3,200,000. Great trouble is taken to ensure good programmes. During the past year 1585 artists and speakers were retained for German broadcasting. During the same year more than £300,000 was paid to artists who were not regular performers. The 28 broadcasting stations use 125 millions kilowatts, representing a total value of £1,500,000.

SPANISH broadcasting plans are "in the air" once more. The late dictator, Primo de Rivera, decreed that broadcasting should be entrusted to a single enterprise for a period of twenty years, the selection being made after a competition in which all broadcasting concerns would be invited to take part. With the disappearance of the dictator's regime, however, other counsellors have stepped in, with the result that the idea of a competition has been abandoned. Spanish listeners are, now uncertain whether their future programmes will be provided by private enterprise or by the State.