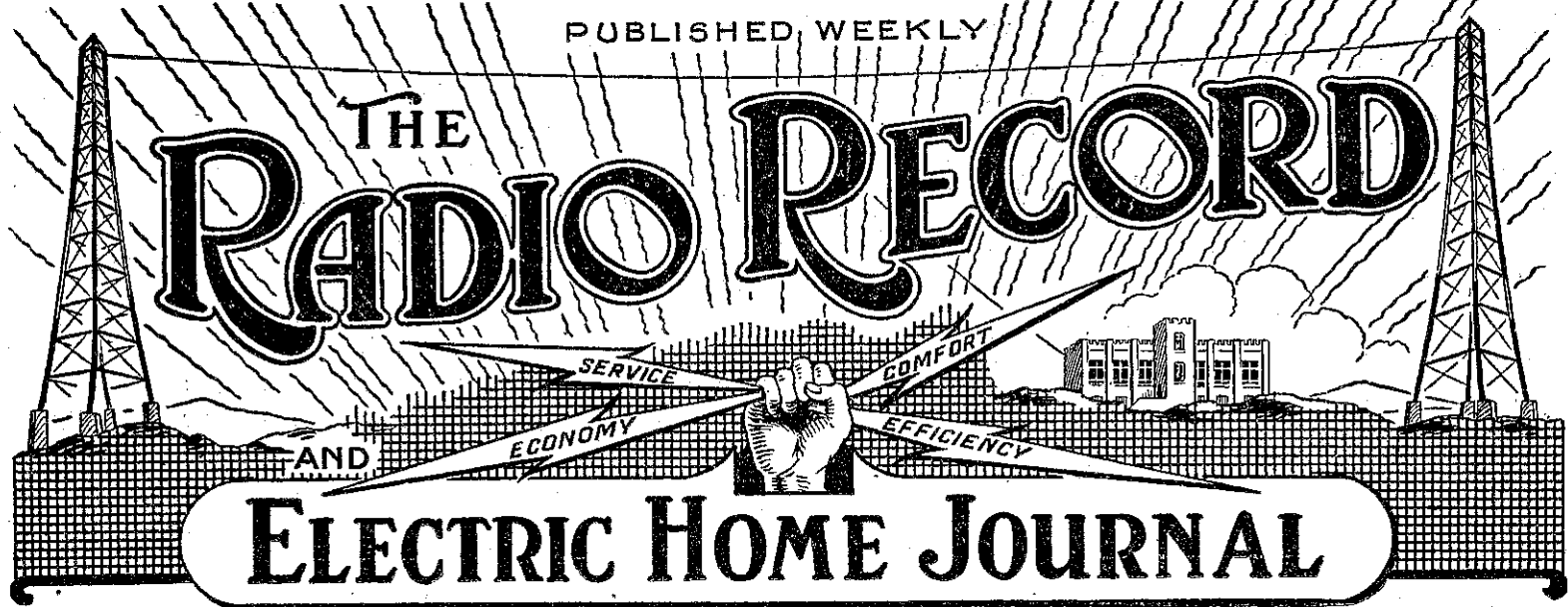


PUBLISHED WEEKLY

THE RADIO RECORD



ELECTRIC HOME JOURNAL

Vol. IV., No. 26.

WELLINGTON, FRIDAY, JANUARY 9, 1931.

Price, 3d.

Better Reception

—From All Stations
—All the Time—with

RADIOTRONS

Superior resources of research and manufacturing have made RCA Radiotrons the standard valves of the industry. They are so accepted by both the trade and the public.

Obtainable from all Radio Dealers.

Amalgamated  Wireless
(Asia) Ltd.

P.O. BOX 830, WELLINGTON.



AS TROUBLE FREE AS YOUR LEISURE HOURS

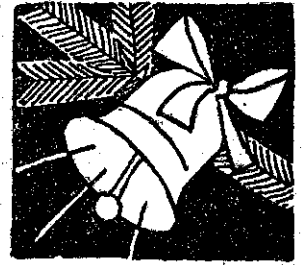


CARRIE Philips says: "Music at the turn of a knob, when and where you want it . . . on the beach, in the car, in the train, at home! Open the lid and tune in—that's how easy it is with the Philips Portable Radioplayer. Nothing to fix: aerial, batteries, screen-grid chassis, loudspeaker—they're all in the cabinet. And Dad says that the British workmen who made this wonderful polished walnut cabinet have made the loveliest bit of furniture in the house! Sometimes we hitch it to our gramophone and amplify our records. See it and hear it! You'll agree it's the best ever in Radio".

PHILIPS

PORTABLE radioplayers W53R

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



For Three Thousand Miles I followed 1930



WHEN the editor of the "Radio Record" commissioned me to follow the flight of the Old Year and the arrival of the New Year over 3,000 odd miles, he set a task which but a few years ago would have possessed a touch of the Arabian Nights. No gigantic projectile, such as Jules Verne sent soaring to the moon, nor magic carpet described so intriguingly by Shahrazad to King Shahriyar was at my disposal. Instead, I turned a switch, and my radio bore me faster than Verne's projectile or Shahrazad's magic carpet, to distant cities where I heard the joyous farewelling of 1930 and the welcoming of 1931.

From a reception standpoint, the Old Year left a kindly memory, for distance reception was almost completely free from static's surf-like crashes. Furthermore, far-off stations were heard with uncommon loudness for this time of the season.

For this boon I thanked the old year as it sped on its last long westward journey to the Tomb of the Past.

To keep in close touch with three or four broadcast stations almost simultaneously was a difficult feat for one person, but I contrived to maintain a sequence of reception from each of the various stations by changing quickly from one to another.

2YA, "the Great Voice of the South," devoted the last minutes of the Old Year to a relay of the Watch Night Service from St. John's Presbyterian Church. Reception was in tone and crystal clear. The service having ushered in the New Year, terminated at 11 minutes past midnight. 2YA then switched over to a microphone placed on the outside parapet of the G.P.O., overlooking the Post Office Square and facing the Queen's Wharf entrance. Even though the New Year was eleven minutes old, pandemonium reigned over a tremendous crowd, and the noise was continuous and overwhelming. No band was present in the Post Office Square, so to compensate for the deficiency two recorded march items were superimposed from the studio.

Whether it was by design or accident, it was a happy coincidence that the records were "Stars and Stripes for Ever," and "Invercargill," repre-

Ivan M. Levy

Relates how he Caught Fleeting
Glimpses of the Old Year as it
Sped into the West

sentative marches, respectively, of two great, friendly, English-speaking powers, the United States and the British Empire, which both border the vast Pacific. It was a cordial gesture which, no doubt, would be heard by many listeners far across the Pacific.

From the Post Office Square 2YA cut back to the studio, and broadcast some enjoyable recorded dance items until 12.30 a.m.

THE Cathedral City rapturously celebrated the passing of 1930 and the birth of 1931. A microphone placed on the balcony of the United Service Hotel, facing Cathedral Square, was connected with 3YA. The first effect when the station was switched over to the Square was the glorious ringing of the cathedral chimes. The bells reverberated sonorously as they flung their voices far out into the night, north, south, east and west, to tell the glad tidings of the occasion. The uproar in the Cathedral Square was tremendous. Loud detonations of fireworks filled the air, which, as the commentator remarked, must have been rather nerve-racking. The chiming of the midnight hour stimulated the tumult three-fold.

The commentator said that all the buildings around the Cathedral Square were brilliantly lighted, sky rockets, catherine wheels and bombs covered the crowd with a dense pall of smoke. Tramway gongs clanged loudly and motor-car horns bellowed lustily. About 800 motor-cars were parked in the vicinity of the Square. The Caledonian bagpipe band marched past the microphone. Scores of people danced gaily, and all was joyous. 3YA switched back to the studio, and the male voice item, "Auld Lang Syne," came through with haunting sweetness.

THE microphone ear of 1YA was located in Ferry Building, at the foot of Queen Street. An extremely festive multitude had assembled in the vicinity of the G.P.O., and the clamour and laughter told of some boisterous doings. The commentator informed us that a Chinaman's cart had been carried up the street by a fun-making mob, and vegetables (Contd. on p. 2.)

Ring Out, Wild Bells!

*R*ING out, wild bells, to the wild sky,
The flying cloud, the frosty light;
The year is dying in the night;
Ring out, wild bells, and let him die.

*Ring out the old, ring in the new,
Ring, happy bells, across the snow:
The year is going, let him go;
Ring out the false, ring in the true.*

*Ring out the grief that saps the mind,
For those that here we see no more;
Ring out the feud of rich and poor,
Ring in redress to all mankind.*

*Ring out the want, the care, the sin;
The faithless coldness of the times;
Ring out, ring out my mournful rhymes,
But ring the fuller minstrel in.*

*Ring in the valiant man and free,
The larger heart, the kindlier hand;
Ring out the darkness of the land,
Ring in the Christ that is to be.*

—Tennyson.



Following 1930

(Continued from page 1.)

were being spilled along the roadway. Another group of merry-makers lifted the rear wheels of a Baby Austin off the ground, and the motorist, completely nonplussed, was helpless.

Another crowd gathered on each side of a tramcar and a motor-bus, and rocked these vehicles in an alarming manner until they threatened to fall over. A nearby piecart was doing "business as usual" and was experiencing a roaring trade.

The motor-bus found it impossible to get through the crowd and now endeavoured to back out, but it was rushed and its rear wheels were lifted clear of the ground, so that the driver was unable to move the vehicle. The rocking of nearby motor-cars next became general, and it was observed that girls were joining in this diversion. The hour of midnight arrived, and then bedlam broke loose. Cheers, choruses and motor-horns joined in a prolonged roar. Shortly afterward 1930 closed down.

DUNEDIN possesses the patent rights of celebrating in true style the advent of the New Year. The Caledonian City of the South, with its large proportion of Scottish folk, has an hereditary aptitude for this particular celebration.

The microphone placed at the Octagon enabled the benighted folk outside of Dunedin to learn from 4YA, Dunedin, how to speed the parting year and to salute the new. The local colour was lent by the bagpipes and traditional songs by the New Year Chorus Party.

The Australian Stations

AND as the Old Year, with the New Year right on its heels, raced away from New Zealand, westward bound, on its 1200 miles' rush toward Australia, I gladly accepted an opportunity for a spell from so much boisterous enthusiasm. The going had been terrific, and as I pored over my notes I visualised again each tumultuous scene they recorded. Two hours' difference in time meant 2 a.m. before the New Year would reach Sydney.

A HAPPY band consisting of "The Australian Broadcasting Company's New Year Party," held revel at 2FC, Sydney. These merry folk comprised members of the Broadcasting Company's office staff devoted to the preparation and compilation of the daily programmes. Not a little vocal talent was displayed by those ladies and gentlemen. There was jazz music, dancing and community singing by the assemblage. The community singing was directed by that "star" comedian, Mr. Charles Lawrence, the hero of the Ashfield and Chatswood Town Halls' community singing. He was in great fettle, and with his quips and humorous stories kept everyone amused. He announced that the assemblage would sing "I Wouldn't Leave My Little Wooden Hut For You," and added, "I wish someone would come and clean mine up," which bore a suggestion of recent revelry in his domicile. The chiming of 12 o'clock brought a loud-speaker-rattling din of cheering, and, as there was a lack of announcing, I am inclined to believe that the hulla-balloo came from a dense crowd as-

Following the Old Year Round the Globe

Radio's Great Achievement

RADIO has shown us in a new and remarkable way how the New Year is ushered in to the world. This week we have two interesting impressions of the New Year broadcasts. Mr. Levy commences with an account of the New Zealand stations. Being near the international date line, we are about the first country of any note to see the coming year, and consequently our broadcasting stations put out the celebrations first. Then come the Sydney, Melbourne, and Brisbane stations, who see 1931 two hours after New Zealand. A little later Adelaide, and still later Perth. The New Year is gradually working its way round the world. It is now 3.15 a.m., our time, and Mr. Levy closes down.

New Year comes to India and Africa before Mr. Sellens, listening on shortwave, shortly before our mid-day on New Year's Day, hears it come in to England. Across the Atlantic, a few hours later, it is welcomed by New York, and from there, still moving west, crosses the great continent. After passing Honolulu it reaches the date line where it is no more. Thus in a truly remarkable way radio has followed the old year, surely a feat which as Mr. Levy says, surpasses the magic carpet of the Arabian Nights.

sembled around the Sydney G.P.O. The whole effect was overwhelming.

Presently it was announced from the studio that Tennyson's superb and appropriate "Ring Out, Wild Bells!" would be recited. The lines were well given by a male performer, with cathedral chimes worked in as an enchanting background to the words. Finally a chorus of "Auld Lang Syne" came through, and what again seemed to be the cheering of the multitude in the streets was superimposed on the chorus.

TUNING in, early, to 4QG, Brisbane, I listened to an exceptionally capable dance orchestra of 18 performers playing in the ballroom of Lennon's Hotel, the commentator describing the brilliant and gay scenes. Many wonderful frocks were worn, and the dancers were decked with fancy jazz caps.

At one end of the ballroom was a huge wheel with many variegated electric spotlights, and when an operator turned the wheel round the coloured lights flashed in waves on the dancers with gorgeous effect.

As midnight drew near 4QG switched back to the studio, where an informal party of vocalists and instrumentalists presented an enjoyable programme. Easily the best item was the male vocal quartet, "Life's But a Golden Dream With You." This was delightfully sung. 4QG's studio party celebrated the arrival of the New Year with unstinted enthusiasm, and before concluding there were several "For He's a Jolly Good Fellow." I recognised the voice of my old friend, Mr. J. Robinson, director of 4QG. I think I also heard someone say: "I'll see you at the piecart afterward."

"BREATHE there a man with soul so dead!" No wonder when I tuned in, 3LO in my native city, Mel-

bourne, I felt a great longing, or, shall I say, a futile wish, to be there in body to see this New Year in. However, I was soon there in spirit. A splendid orchestra was providing irresistible dance music, with vocal items interpolated. In the last minutes of the expiring year an impressive New Year's message by the reverend president of the Council of Churches was delivered. This was followed by the Australian Broadcasting Company's own New Year message to the many thousands of listeners, and it concluded with "Pass the year well, with radio." Just before the chiming of midnight a solemn dialogue, or epilogue, was given by a male and a female character, and was artistically appropriate. The male voice, I believe, was that of Mr. Frank Clulow, formerly of the Allan Wilkie Shakespearean Co. The New Year was welcomed with an enthusiastic chorus of "Auld Lang Syne." But there was an air of cultured dignity at 3LO in the last minutes of the Old Year so characteristic of Melbourne, the Boston of Australia.

THE Cinderella State's broadcast station, 7ZL, Hobart, was having a gay old time. A well-balanced jazz orchestra was playing the latest "hits." There were several vocal numbers which were warmly applauded. The New Year was received with hearty enthusiasm — cheers and choruses.

THE end of the Old Year had now outdistanced me, and was careering westward toward the City of Churches, capital of the land of "crow eaters." With a turn of my tuning dial I flashed ahead again of the fleeing year, and was 2000 miles away in Adelaide, where it was still 1930. All was merry as the proverbial wedding bells, according to 5CL, Adelaide. Here there was a tip-top jazz

orchestra and the voices of many happy couples could be heard through the music. Vocal numbers were also given, the best of which was the offering of a coloratura soprano who possessed a well-trained, if light, voice. She was vociferously applauded at the conclusion of her item.

At a few minutes to midnight the assemblage at the cabaret sang "The Long, Long Trail" in excellent style. Then, alas, a gentleman essayed to recite Tennyson's "Ring Out, Wild Bells!" This was a poor, colourless effort, and was nothing more than the mere speaking of the words. What a contrast with the same item as heard from 2FC.

"It's a Long Way to Tipperary," sung by all, must have revived my sad memories of the war. Just as midnight was announced by the chiming of the hour the jazz band struck up "Happy Days Are Here Again," and all joined in singing that joyful item. This was followed by "Auld Lang Syne," "Pack Up Your Troubles," then an Australian national song, and finally Elgar's "Land of Hope and Glory."

I glanced at the clock; it was 2.33 a.m. on New Year's Day, New Zealand time. The Old Year was still within reach, and I could not resist racing the New Year to Perth. Once more I re-adjusted my tuning dial, and was instantly about an hour and a quarter again ahead of 1931. The music from 6WF, Perth, was coming in clearly across the intervening 3300 miles of land and sea.

Pondering over the wonder of it all, I caught myself sinking into a drowsy reverie. I roused myself; with one more farewell to the Old Year I switched off my set, and left 1930 still hurrying westward to its end.

America Welcomed the New Year

(By F. W. Sellens.)

PERHAPS the most interesting reception during the past week was a "Coast to Coast New Year Eve Party," arranged by the General Motors of America and broadcast on short waves by W2XAF, Schenectady. Several stations across the continent were linked to New York by land lines, thus making it possible for the New Year celebrations in each time zone to be put on the air by the powerful W2XAF and heard by the whole world.

The first celebrations were at New York, where a peal of bells commenced at 11.55 p.m., their time (4.55 a.m., New Year's Day, here). After the bells struck 12 they played their National Anthem. Listeners were then taken to Times Square, Broadway, to hear the hearty reception of the New Year by the multitude there. This consisted of hooters, cheering, singing, bells, etc. Dance music followed till nearly 6 p.m., when they went over to Chicago to "see in" the New Year at the Edgewater Beach Hotel. While in Chicago dance music was heard from several hotels, the celebrated Paul Whiteman and his orchestra being at one of them.

Denver, Colorado, was the next city that 1931 was welcomed. Orchestral music from the Denver Athletic Club was heard till midnight (7 p.m. here), when they switched over to the Cathedral of the Immaculate Conception for a peal of bells and the striking of 12 p.m. This was followed by "Adeste Fideles" on the bells. Music was again heard from the Athletic Club. (Concluded on page 28.)

RICHARD WAGNER

---Revolutionary of the Music Drama

A talk given recently from 2YA by Mrs. Daisy Basham on a music genius whom once the world regarded with indifference, but whose works are to-day the joy of opera-lovers.

IT is probable that no musician who ever lived has caused so much discussion as Richard Wagner, who has been well-called "the Revolutionary of the Music Drama." Around his works have raged the fiercest controversies. He has, at least, never been treated with indifference, or "damned with faint praise." His music has aroused in its hearers both the most extreme dislike and the deepest joy.

Wagner himself declared his music to be the music of the future, and at that time it was emphatically so. Now it is, just as emphatically, the music of the present. Seventy years ago he was looked upon almost as a musical madman who threw all established art forms and traditions to the winds. The pendulum has to-day swung to the other side, and perhaps we are now making too much of Wagner. But at least we must accept him as a colossal genius in his own domain—the domain of music drama.

Wagner altered the whole course of modern opera, and founded a musical system which it is impossible for later composers to set aside. He disliked opera in the Italian style, and was determined to have German opera, in which poetry, music, scenery and acting all blended to make one artistic whole. He wrote his own words as well as the music, and gave the most minute and thorough directions about the scenery, the dresses, the danc-

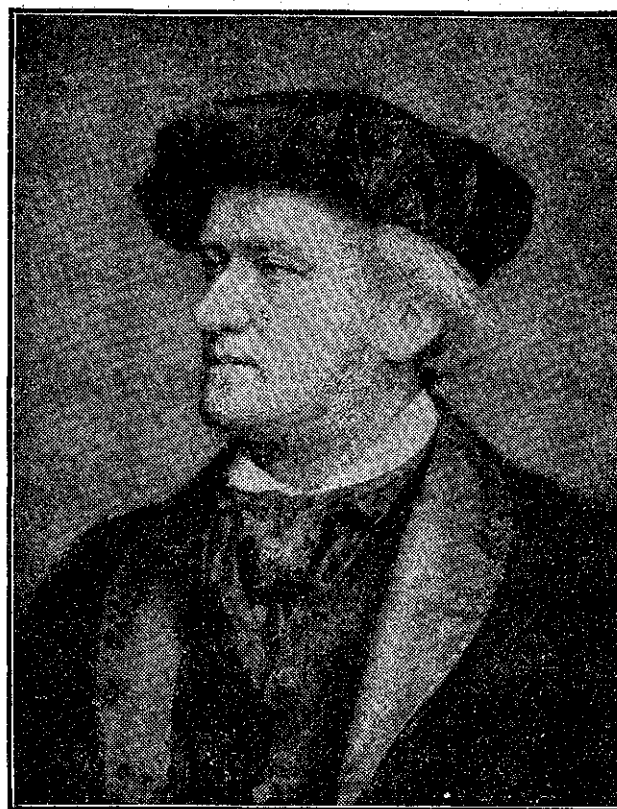
ing, and the acting. The object of Wagnerian opera is, in fact, to present a true picture of human feeling with the utmost fullness and intensity, dealing with everything. His operas completely exhaust the situation.

The music is not split up now and again by pretty songs often having no reference to the play; but flows smoothly, *helping* the drama, and showing *in itself*, the feeling emotion which the performers are acting on the stage. Thus for each leading character, or for each thought or motive, Wagner composed one particular and special tune or phrase. This "leading motive" was varied in speed, strength, or harmony to show variety in power and meaning of the character or thought; but the basic tune always accompanied the appearance of the character on the stage, or the influence of the thought in the play.

IN the "Tannhauser" music three leading motives portray the meaning of the opera, which is the eternal contest between flesh and spirit, earthly and heavenly love; symbolised in the persons of Venus and the pure maiden Elizabeth. First we have the quiet but impassioned chant of the Pilgrims, which is most subtly woven into the fabric of the drama—now associated with the mechanical patter of dull monks, now giving expression to Tannhauser's repentance, now goading him to despair with its hope of salvation not for him, and, lastly, with its triumphant joy at the final miraculous forgiveness of Tannhauser.

The chant dies away, to give place to the second idea—the spells of Venus, or, as Wagner calls it, the "pulse of life"—and this in turn gives place to the third, which is Tannhauser's love-song, asserting the lower side of his nature. Sometimes these themes occur together, and sometimes alone. At other times one is stronger—illustrating musically the struggle between the pure and the base—which went on in Tannhauser's mind.

One can quite see that, to follow all this out properly, audiences must not merely look and listen, but also they

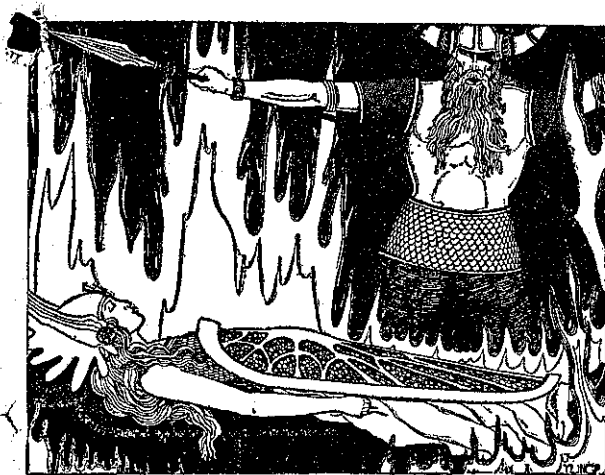


RICHARD WAGNER—1813-1883.

must *think*. Thus it is not surprising that at first Wagner's operas were not popular. It was something new to have to *think* at an opera performance. In addition, his operas are much longer than those of other composers, and people had been so long accustomed to shorter performances requiring slight use of the intelligence that it took a long time to become accustomed to a whole evening of close concentration. But to those who took the trouble, how immense the reward! The joy of experiencing a performance of "Tannhauser" or "Lohengrin" can hardly be compared with an ordinary evening at the theatre.

WHEN Wagner was 42 he went to London to conduct the Philharmonic Society's concerts. He was much liked as a conductor, especially for his presentations of Beethoven, which he always conducted from memory. But his operas met with furious opposition; in fact it seems astonishing that people could become so angry and bitter. When the now-so-popular overture to "Tannhauser" was performed by the Philharmonic, the *Times* printed this amazing criticism: "A more inflated display of extravagance and noise has rarely been submitted to an audience; and it was a pity to hear so magnificent an orchestra engaged in almost fruitless attempts at accomplishing things which, even if really practicable, would lead to nothing."

Truly, time does bring changes, for "Tannhauser" has for many years now been one of the greatest draws in the operatic repertoire! Wagner met with the same opposition in Paris in 1860. When "Tannhauser" was presented at the Grand Opera people in the audience blew whistles, hissed, shouted, and created such a disturbance (Concluded on page 29).



"Let none who fear the spear of Wotan venture across this fire!"

The closing scene from Wagner's opera, "The Valkyrie."

The New Zealand Radio Record

—AND—

Electric Home Journal

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX. 1032, WELLINGTON.

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

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

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

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

WELLINGTON, FRIDAY, JANUARY 9, 1931.

GOVERNMENT CONTROL OR PRIVATE ENTERPRISE?

THE year 1931 will be important in New Zealand broadcasting history, for in it will be determined the basis of our future broadcasting system. The Postmaster-General, the Hon. J. B. Donald, actuated by commendable keenness to give listeners the best possible service, is considering a change from the present system to one in which Government control will play an important part. The views so far expressed by him favour Government control of the technical side of the service with another authority of a nature not yet determined upon, responsible for the programmes. This change involves such a radical departure from the existing system and is likely to be so far-reaching in its effect upon the future of broadcasting that it is incumbent upon listeners to give the most serious thought to the subject lest their interests be affected.

WHILE recognising the motives by which he is actuated and appreciating his desire to benefit the service, we profoundly disagree with the Postmaster-General in his view that Government control of the service to the extent indicated by his earlier pronouncement would be of benefit. From the technical standpoint alone, the Post and Telegraph Department doubtless could supervise capably enough the actual running of the stations. But to create two authorities to do what one does now, would in our opinion be fatal. The system is not working satisfactorily in Australia. The division of authority is leading to diffusion of effort, a certain amount of waste and inefficiency and, worst of all, a lack of direct responsibility on the part of any one authority for the service. The actual broadcasting is failing to give the listener satisfaction, and comment is general in Australian centres that the "B" class stations give programmes that are in many cases—notably so since recent staff changes—better transmitted and more diversified and entertaining than those of the "A" stations. We believe this complaint to be in large part due to the division of control and the relegation of programmes to a body composed of theatrical and publishing interests rather than to an authority concerned wholly and solely with the task of satisfying

the listener. The necessity of unity in control as a factor in success is emphasised by the fact that the two most efficient broadcasting systems in the world—the British and the American—have been built up on the basis of absolute control by the authority concerned. These two systems are fundamentally different in many respects but they agree in this vital point: each is under the absolute management of the powers that be. Australia, formerly under unified control, varied her system; the result is certainly not an increase in efficiency and is giving much less satisfaction to the listener.

UNDER New Zealand conditions, the major problem in the event of any change on the lines proposed by the Minister, will be the provision of a programme authority. In view of the desire to increase the number of stations the Minister could scarcely contemplate the formation of local companies to supervise local programmes, for that would make confusion worse confounded from the point of view of copyright and co-ordination of items. A single national authority is essential. To throw programmes open for tender, in all likelihood, would place control of our entertainment in the hands of the same or similar interests as now hold the reins in Australia—namely, theatrical or publishing houses or a combination thereof. That would not be to the advantage of the New Zealand listener, for the dominant interest would be financial and personal rather than the absolute service of the listener.

THE financial angle of the proposed change also needs careful consideration. This is not the year in which the Government should seek the investment of new capital in extra broadcasting stations in country centres, nor is it the time to change from private control to Government administration in any service. Experience shows plainly enough that costs rise on the touch of the Government hand. It will not be any different in the broadcasting field. Entry of the Government into the radio field at all will institute a demand for further and further participation in new phases with the certainty of grave curtailment of trading activities, without compensating advantage to the listener—in fact, in so far as the listener and the taxpayer are one and the same, to his definite disadvantage; for losses incurred must be met by him.

THE times call for economy and efficiency. The existing system as a system has proved itself in our conditions. Without cost to the taxpayer, the listeners are providing the revenue for a service reasonably adequate to the needs of the country. In certain directions improvements are desired, but it becomes a question of how far they are economically possible. To seek to provide them by a radical change to Government supervision, in our opinion, would be an unwarranted socialisation of a service which is more suited to private enterprise. Further, it would carry with it the practical certainty of an ultimate burden on the taxpayer, a definite risk to the trader and in the light of Australian experience no permanent benefit to the listener. For these reasons public opinion should concern itself with the future of the broadcasting service.

Not Satisfactory

Australian Government Control

THE policy of the Government in taking over the technical work of broadcasting (as has been proposed in New Zealand) receives a nasty jolt in the following letter by "Off the Air," Ballarat, published in the Melbourne "Listener-In":—

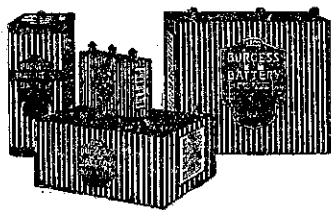
"Dear Sir,—Usually at the commencement of the daily session of 'A' class broadcasting sessions we hear the oft-repeated cry of '3LO or 3AR, the Australian Broadcasting Company supplying the National Broadcasting Service.' Now let us examine the wonderful service we are getting. From station 3LO we get 'mushy reception' most of the

time, and from 3AR, sometimes nothing at all. Are listeners to get service for their £1/4/- per annum, or have they to be contented with 'any old thing at any old time'? Station 3AR has been 'off the air' some five or six times recently, and the latest break was for over 12 hours, and, like Johnny Walker, was still going strong while this was being written. Is it a fact that competent engineers and experts have been displaced, and men from the Postmaster-General's Department, with practically no wireless experience, put into their positions? Perhaps the Director of Wireless can give listeners some reason for the cause of these frequent breakdowns."

HAVE you renewed your subscription to the—

"Radio Record and Electric Home Journal"?

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



**BURGESS
RADIO
BATTERIES**

Elocutionist on Tour

Mr. J. F. Montague

MR. J. F. MONTAGUE, elocutionist, of Auckland, who is to appear at 2YA, 3YA and 4YA under engagement to the Broadcasting Company, is performing at all three stations this week and will be heard on the air on the following dates next week:—

4YA—Monday, January 12.

3YA—Wednesday, January 14.

2YA—Friday, January 16.

On Monday, January 19, Mr. Montague will produce, from 2YA, a great sea play, "Treasure Island," founded on Robert Louis Stevenson's famous book of that name. The presentation will be complete with sea chanties and all the incidental effects.

Book Review

The Magic Carpet

THE beginner who wants to get a thorough elementary knowledge of radio and electricity should find "Wireless, the Modern Magic Carpet" by Ralph Stranger, fills his needs. In a very brief introductory chapter radio on the other side of the world is dealt with, and some of the marvels of wireless touched upon.

Chapter 2 is a very sound one, giving the very basis of magnetism, electricity, matter and energy. This is then carried on and applied to radio, and the components of a radio set are taken separately and fully accounted for.

The book is complete with an excellent chapter on fault finding. Besides this more or less theoretical section there is a concluding one which raises a few of the interesting sidelines on broadcasting. What struck us most forcibly about the book was the very simple and direct manner in which the different points were illustrated. We cannot conceive of anyone, even should he not have the slightest idea of electricity and wireless, having any difficulty in understanding the subject matter treated. It can be obtained from Te Aro Book Depot, Wellington, for 3/- posted.

Trade Notes

THE British General Electric advise that they are bringing out a new series of valves. We have been fortunate in seeing advance information concerning these and have had an opportunity to study their characteristics. Many improvements have been made. In most cases the impedance has been lessened and the slope and amplification factor improved. When details of these valves come to hand listeners will be able to get information directly from the representatives.

KNOW the time all over the world with a

DX Clock.

Printed on Heavy White Paper.

Posted in Cardboard Tube.

9d. Each.

TWO ONE-ACT PLAYS

"For Winter, for Summer" and "Nine Points of the Law"

Will be Presented by

Mr. and Mrs. J. W. Bailey

From 1YA on January 13.

The Mystery of the Atom Liberating Its Hidden Energy

THE fact that two German scientists have been making serious attempts to discover atomic energy is of especial interest to wireless investigators, because the science of wireless is based fundamentally on the behaviour of the atom and its electrons. Hence any attempts which are made to increase our knowledge of these units are likely to affect also the theory and practice of wireless. It will not be out of place, therefore, to relate exactly what atomic energy is and how scientists hope to obtain it. Most people are aware that all matter is composed of tiny units called atoms; a common brick, a star or a human being, all are built up of these tiny and invisible units.

Using the Hidden Energy.

TOWARD the end of last century it was discovered that the atom itself contained still smaller units—namely, the now familiar electron, which appeared to revolve round a more or less stationary unit in the centre of the atom. This has been given the name proton.

The speed of a rifle bullet depends largely upon the charge behind the bullet, and so it must be with the electron—its speed must be the result of some tremendous force inside the atom—the force is certainly not supplied from outside. The discovery of the rapidly-moving electron was the first hint that science received of this so-called atomic energy.

When we use radium we are making use in a mild way of atomic energy, but radium is rare and expensive, so that the only hope of obtaining atomic energy on a large scale is to devise some method of exploding the ordinary atom of matter, when it will discharge its electrons and give us abundant energy in the form of heat.

Uranium is the most likely substance for our purpose, for it is brimful of latent radio-active energy, more so than radium. In addition, there is plenty of it in the world, and if we can explode its atoms in some way or even accelerate their rate of explosion (for uranium atoms do explode, only they take some thousands of years to

do so), then atomic energy will be plentiful.

The Magnetic Method.

THE point is, how are we to explode these ordinary atoms? The two German scientists, Lange and Brasch, hope to accomplish the feat by submitting the atom to a potential of 9 million volts from thunderstorms and atmospheric electricity generally.

The electron and proton are both electrical in nature—they are more electrical than material—the electron being a negative charge and the proton a positive charge of electricity. It is the positive charge of the proton which holds the electron to its orbit, and prevents it from flying off into space like its radio-active brother.

If then, in some way, the electric strain which holds these two together can be broken even for an instant, then the atom will split open, the electron will fly off at thousands of miles per second, and terrific heat will be generated.

And what is more likely to break this electric strain than the terrific potential tapped from a thunderstorm?—so, at least, believe the German scientists. When we consider that there are billions of atoms in any material the size of a pin-head, all containing electrons capable of generating terrific energy, then the extent of atomic energy will be appreciated.

There is also the possibility that the electron in the atom may be torn from the proton by magnetic means, but this has already been tried unsuccessfully in the United States, while the thunderstorm method, with a potential of 9 million volts, has yet to be exploited. However, the magnetic method may again be attempted.

The importance of the experiment to wireless, apart from the world in general, is that whatever happens, some new data concerning the atom and the electron are likely to be forthcoming. Of course, the investigators may even discover that there is no such thing as atomic energy and that the apparent high velocity of electrons inside the atom is not a demonstration of energy, but of something else.

Radio in Denmark

Immensely Popular

ACCORDING to the official figures recently published by the International Broadcasting Union at Geneva, Denmark has more wireless listeners per thousand of its population than any other country in Europe. The actual figure for Denmark is eighty-eight listeners per thousand population.

Sweden takes second place with seventy listeners per thousand and Great Britain comes third with sixty-seven listeners per thousand population.

As a matter of fact, Professor Millikan, of cosmic-ray fame, has stated his disbelief in this energy, although the majority of scientists, such as Lodge, Rutherford, and Soddy, have made positive suggestions regarding it.

Should atomic energy be harnessed, however, it will cause a complete revolution to life on this planet. From the wireless point of view alone, we should be able to dispense with the most costly part of the transmitter or receiver, namely the power supply. The atomic energy in a few pounds of uranium salts is sufficient to run all the motors and generators of a station like Rugby for 20 or 30 years.

All valve filaments would be coated with radio-active deposit, and neither the low tension nor the high-tension batteries would be necessary on the wireless set.

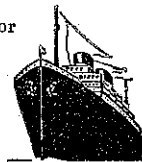
At the same time, atomic energy is not going to be of very much use to us if we have to brave the dangers of tapping a thunderstorm every time we require it. Some very much less difficult and dangerous method will have to be discovered, and the most we can hope for in the meantime is that the various attempts to break into the atom will throw some light on the behaviour of the electron—surely the most elusive and mysterious entity of our time.

**NO UNEMPLOYMENT
IN THIS CAREER!**

There's remunerative employment waiting for qualified wireless men on shore and ship. Johnson's Wireless School takes you up to 1st or 2nd Certificate Examination Standard by easy progressive stages. Write for particulars.

Day and night classes for Proficiency Certificates. Correspondence classes for Proficiency Certificates. Correspondence classes for Amateurs and others.

**JOHNSON'S WIRELESS
SCHOOL**
St. George's Buildings,
8-10 Brandon Street,
Wellington.



"Radio Record and Electric Home Journal."

12/6 in Advance; 15/- Booked.

BOX 1082, WELLINGTON.

The Psychology of Listening

Mental Fatigue

THE term "colour blindness" is a familiar one. The term "tone blindness" is not so familiar. And yet the human ear, like the eye, has its distinct limitations.

The noise of city life has compelled us to be less sensitive to sounds for the sake of our nerves. We must ignore most of the noise in order to be comfortable, and this is impairing the function of hearing, we are told by psychologists and physicians. Then also, the ear has its limitations of responsiveness to pitch. Persons with unusually keen ears can hear tones as high pitched as 10,000 cycles, while others can hardly

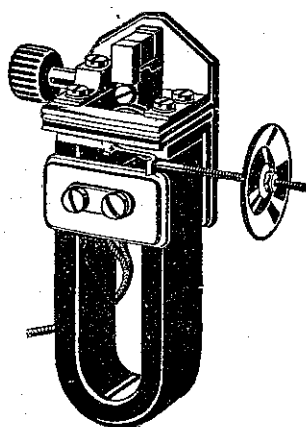
perceive tones higher than 5000 cycles. Such limitations of the hearing faculty made radio reception a matter of psychology as well as of acoustics. The early types of reproducers or loud-speakers were not acoustically capable of accurately reproducing low notes. When such a note was played in the broadcasting studio, it was reproduced not as a tone of the same frequency but as a harmonic of this tone. Such tones sound "tinny" and the listener becomes mentally fatigued without knowing the exact reason why. His mind unconsciously "manufactures" from the harmonic the fundamental tone it represents.

Since the lower notes are not received, the music is high pitched, and prolonged listening to it is tiresome, although here again the listener may not be conscious of the reason.

THE State Radio Society of Denmark pays a subsidy of 5½ millions annually to the Royal Theatre.

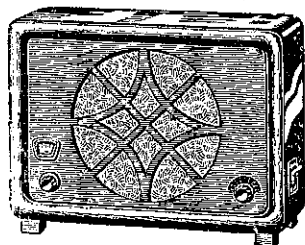


have more than one million loud speakers playing to-day



Here is the 66R type unit. With a 14½ in. cone speaker chassis. The complete sound range is tone-true.

Prices: Blue Spot Power Unit
66R 40/-
Cone Speaker, 14½ in.
Chassis 25/-



This complete 3-Valve All-electric Radio Set, with built-in Blue Spot Loud Speaker will give a perfect rendering of the programme from your nearest station. The price is £15.

Factory Representatives

SCOTT & HOLLADAY
LIMITED,
CIVIC CHAMBERS, WELLINGTON.

"The 1930 Tour of the Australian Cricket Eleven Through England"



W. H. WOODFULL,
Captain of the Australian Eleven.

A NOVELTY FANTASIA

From 4YA

January 13

With a Descriptive Lecture by

Mr. George Wycherley,

President of the Otago Cricket Association.

Electricity and Civilisation

Marvels of Science

WE live in an age dominated by science (remarks an English writer). Because we live so rapidly we rarely pause to think about the marvels which enable us to do so much, but if we do we are struck by one very forcible fact. Of the many discoveries of modern science, which means most to us?

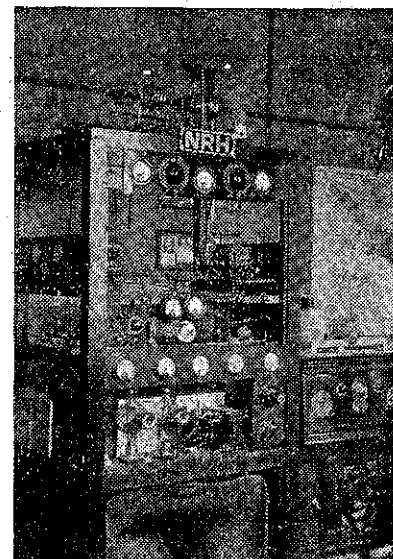
Electricity, surely. By means of electricity we can drive a sewing-machine or a battleship. That little torch the doctor uses to examine your throat—it is lit by the same means as the Paris Opera and the street lamp. Electricity enables us to talk to our stockbroker across the street and send our S.O.S. across the world at the pace of 186,000 miles per second! It will warm your sitting-room, it will cook your breakfast, and it will shatter crude ores and make them disgorge their molten metal for the uses of man.

A Realistic Radio Play

MUCH consternation was occasioned in Berlin recently through circulation of a rumour stating that the Minister of Foreign Affairs, Dr. Curtius, had been murdered in Geneva. It was subsequently discovered that the broadcasting of a realistic radio play entitled "The Minister Murdered" had been taken by the majority of listeners as actually true.

Japanese Broadcasting Develops

SINCE the Broadcasting Corporation of Japan has taken over the control of the radio system in that country, its development has greatly progressed. At present there are over 700,000 registered licenses, thus ensuring an income of 8,500,000 yens (approximately £850,000). Ten-kilowatt stations have been erected at Tokio, Osaka, Nagoya, Hiroshima, Kumamoto, Sendai and Sapporo and a further six smaller relays will be in operation shortly.



The transmitter of the famous little Costa Rica station, NRH, about which an article appears on page 13.

Breaking into the Amateur Game

Part III—The Transmitter, Power Supply and Antenna

By "Q.R.L."



In the last article we discussed the requirements of the amateur operator's examination; this included a description of a low-priced transmitter suitable for a beginner. The simplicity and cheapness of it will probably surprise the reader, but though using no more power than a large receiver, it is nevertheless a transmitter capable of sending signals considerable distances. Most amateurs commence transmitting with just such apparatus, and invariably increase it as they gain experience in its operation. This transmitter is mainly for Morse work.

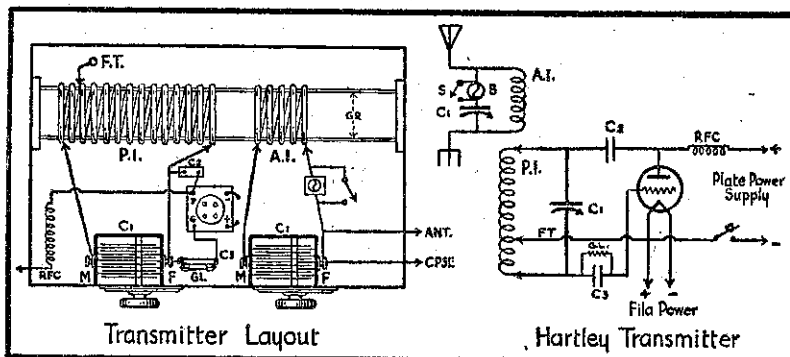
In general, a transmitter may be divided into three parts—the transmitting circuit, the power supply, and the antenna, each of which will be dealt with in turn.

The Transmitting Circuit.

THERE are several different types of transmitting circuits, with different numbers of valves, but the great majority of amateurs use only a single valve, which is simply an oscillator, or generator of radio-frequency current, as in the transmitter described. Now with an oscillator, as with a regenerative receiver, there are only two fundamental circuits, which are those using inductive coupling feed-back from the plate to the grid to cause oscillation, and those using capacitive coupling feed-back. A circuit consists simply of a means of varying this feed-back, of varying the frequency of the wave, and of resonantly coupling the antenna circuit to the oscillator. The chief factor in a circuit is to get the largest output for a given input, other things remaining equal, but in this respect, however, there is no circuit particularly better than the others, as each will give the same performance, if correctly adjusted, which is important.

The circuit shown here is simple and popular, and is just as efficient as any other when handled correctly. It is known as the Hartley circuit and employs the inductive coupling method of plate to grid feed-back. The plate inductance (PI) is virtually divided into two by the tapping from the filament (FT), making the smaller portion in the grid circuit and the larger in the plate circuit, and induction between these two portions maintains the feed-back and oscillation. The amount of this feed-back will be varied by the number of turns in both the grid and plate parts of the coil, thus by changing the point of tapping of the filament clip. For best results it should be on about the fourth turn from the grid end of the coil.

As with a receiver, the frequency of the wave will be varied by means of the variable condenser C, across the plate coil. The wavelength span with



HARTLEY TRANSMITTING CIRCUIT.

AI.—Antenna Inductance.
PI.—Plate Inductance.
B.—6-v. Torch Bulb.
C1—.0005 mfd. Var. Condensers.
C2—.002 mfd. Plate Blocking Cond.
C3—.00025 mfd. Grid Condenser.

GL.—5000 to 10,000 ohm Grid Leak.
K.—Morse Key.
RFC.—Radio Frequency Choke.
S.—Shorting Switch.
V.—Receiving Valve, UX-201A, 112A, or 171A.

the coil shown is from 70 to 100 metres approx., so as to get the 75-85 metres amateur band in comfortably. For the other bands a proportional number of turns in the coil would be used—e.g., for the 40-metre band, seven turns. It is in this condenser-coil circuit that the heaviest R.F. currents flow, these being much greater than those in a receiver, hence the necessity for heavy conductors in the inductances, etc., as later described. The antenna circuit is coupled inductively to the oscillator through the antenna coil (AI), resonance being obtained by tuning with the antenna condenser C, and indicated by the lighting of the bulb B, as in the absorption wavemeter described in the last article.

Making the Transmitter.

NOW for the individual parts of the transmitter. Firstly, all are mounted, as shown in the plan diagram, on a wooden baseboard, about 14in. x 8in., which should preferably be shellaced. The layout of the parts need not be strictly adhered to, but as all leads are conveniently short, it is hard to better. For the low power input being used, the valve V may be any receiving type such as UX-201A, 112A, or 171A. The power amplifying valves give a little more output than the 201A, but the latter is entirely satisfactory for this transmitter. If the input is later increased, however, larger transmitting valves will be necessary, its size being directly dependent on the input used. An ordinary UX type socket with terminals arranged as in the plan holds the valve.

The two variable condensers, C, are simply good receiving type condensers of a .0005 mfd. capacity, with any kind of dial (not necessarily slow motion), and mounted on short strips of ebonite screwed to the front edge of the base-

board, a whole panel being superfluous. It will be seen in the plan diagram that connections to the moving plates of the condensers are made to the metal frames at either side, thus simplifying wiring. For this purpose most condensers have convenient screws and nuts, which may be used as terminals, holding the frame together.

Next come the plate and antenna inductances. They consist of about 3-16 in. diameter soft copper tubing, wound in 3in. diameter coils, with approx. 3-16in. spacing between them. Once wound, the coils are self-supporting and need no former, thus avoiding dielectric losses. There are fourteen turns in the plate coil, requiring 12 feet of tubing and 5 turns in the antenna coil, requiring 4 feet. For winding the coils, a 3in. diameter former, preferably wooden, is used, and the tubing wound on with the turns touching. The former is then displaced with, and the turns pulled apart, until the desired spacing of 3-16in. is obtained. On the baseboard the coils are mounted on two 1/4in. diameter glass rods (GR), 2 1/2in. apart, running the length of and 1in. above the baseboard, and held in place by two wooden blocks with suitable grooves.

A simple means of sending "phone" with the transmitter is shown in Fig. I. From the grid end of the plate coil a similar coil of about three turns is coupled about 1/4in. away, and an ordinary carbon telephone microphone connected to its ends. This system of modulation is not very efficient. It is known as "loop" modulation.

The antenna coupling, or amount of R.F. energy transferred from the oscillator to the antenna, is varied by sliding the antenna coil along the glass rods to or from the plate coil,

and the distance between the two should not be less than 2in. or the tube may be put out of oscillation.

The purpose of the radio frequency choke (RFC) is to prevent the R.F. currents generated from leaking away into the power supply, but to allow the D.C. to pass. The choke is a coil of 150 turns wound on a half-inch wooden dowel with about 30 g. d.c.c. wire, and mounted with small clips.

C2 is the plate blocking of condenser, which allows the R.F. current to pass, but blocks the D.C. It may be any receiver type fixed condenser of capacity .002 mfd., but as the whole plate voltage is across it, it should have good insulation, say 500 volts test.

The grid condenser (C3) is for the purpose of passing R.F. voltages on to the grid, causing on it a charge which is eventually allowed to leak off by means of the grid leak to the filament. For this transmitter the grid leak may be any 5000 to 10,000-ohm resistance, and the grid condenser a .00025 mfd. fixed receiver type.

In the antenna circuit the bulb B is an ordinary 6-volt torch bulb in a suitable socket, with a small shorting switch, which is closed after the antenna has been tuned, as later described.

No metres have been included in the transmitter, as for the power used they are not absolutely necessary, and would add considerably to the initial cost. If the constructor does not mind this, however, suitable metres would be a filament voltmeter, a plate milliammeter, reading 0-100 mills., and an r.f. ammeter (0.1 amp.), the latter to take the place of the torch bulb.

The whole of the transmitter must be firmly constructed so that the parts and leads, especially the inductances, cannot vibrate, as this would cause the signal to "wobble." For the leads between the condensers and coils, heavy rubber covered flex should be used, with strong clips to connect to the ends of the coils, so that here losses through resistance will be minimised. The remainder of the wiring may be done with 14g. copper wire. No terminals are used, as the power wiring to the filament, choke and coil-tapping is run direct underneath the baseboard with insulated cable.

The key may be mounted anywhere convenient on the operating table or bench.

The Power Supply.

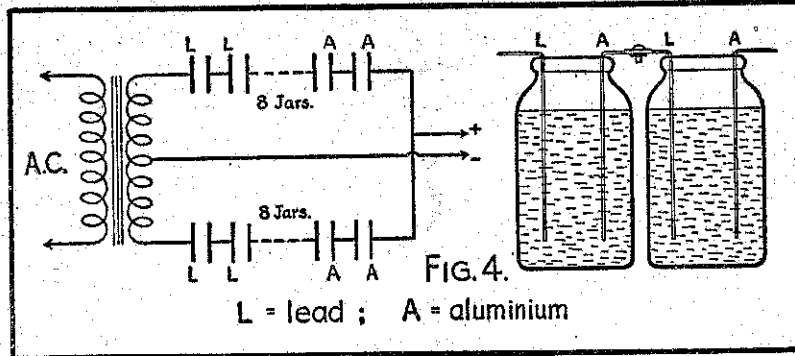
THERE is nothing more to the oscillator portion of the transmitter, so we may go on to the next part, the power supply. This in turn is divided into the filament supply, and the plate supply. For the filament, the same 6-volt battery as is in use in the receiver may be used, with a D.P.D.T. switch to change it over from the receiver to the transmitter, and vice versa. Alternating cur-

rent at a suitable voltage may also be used on the filament, provided that a means of obtaining the electrical centre of the filament (where the alternating of the voltage has no effect) by means of resistances, is used, as shown in fig. II. The condensers are for the purpose of bypassing r.f. currents. This apparatus could be mounted at the back of the baseboard where the tapping comes through.

Now the strength of the transmitter's signals and the distances coverable depend greatly on the voltage of the plate power supply, or on the amount of power input to the valve. With a voltage of 100 to 200, all New Zealand will be easily covered, and occasionally Australia, on the higher amateur wave bands, and with from 300 volts upwards nearly all the world may be worked on the shorter wave-lengths. This transmitter works well with from 100 to 300 volts on the plate of the valve, and is not designed for use with over 300, as receiving valves do not stand up for long to higher voltages, and heavier coils would be required.

The plate supply may be obtained either from receiver B batteries or from the A.C. mains, suitably rectified and filtered, as in a B eliminator; the oscillator plate current does not normally exceed 20 milliamps. It is most important that if rectified alternating current is used (R.A.C.), it should be well smoothed, as the pureness of the signal's note depends largely on this. As explained in the last article, a rough, harsh note is caused by using unsmoothed R.A.C., while a pure musical one covering less territory of the band results from using direct current or well-smoothed R.A.C. These types of notes are respectively termed R.A.C. and D.C. notes.

If batteries are not available, a good way of using the A.C. mains for power supply is by means of a chemical rectifier, which for low voltage is both cheap and simple. The parts for such a rectifier may be obtained for a few shillings, and with



a suitable filter, such as four 2 mfd. condensers, it should give a DC note. There is a voltage drop of about 20 per cent. through a chemical rectifier, so a transformer delivering 400 volts with a centre-tap should be used, a suitable one being described in the "Radio Listeners' Guide." It may also have a filament winding on it to supply current at 6 volts for the filament of the valve. About eight jars in each "leg" of the rectifier should be used, as shown in fig. III, with lead and aluminium electrodes in a saturated borax solution, so that there are about 2½ square inches of each electrode in the solution in each jar. The rectifier must be "formed" in the usual way by placing an ordinary 230-volt lamp in series with it, and running the current until the lamp becomes dim. It is worth while noting that the regulations prohibit the use of "slop" rectifiers unless a transformer is used between them and the mains. A full-wave rectifying valve would be less trouble to hook up than the chemical rectifier, but would cost more and need more filter, also the latter rectifier requires little attention once installed properly. To conclude the power supply discussion, suitable power switches should be connected so that the transmitter may be turned on or off quickly.

The Antenna Supply.

THE last, but not least, part of the transmitter is the antenna, or radiator. So that waves of the desired frequency will be most easily radiated by them, antennas must be of definite overall lengths, the best being half the length of the waves being radiated, and they must be "fed" from the oscillator through the antenna coil at one of several definite points in their lengths.

Thus for frequencies of 3500 to 4000 kilocycles (85 to 75 metres), which is the amateur band in which the oscillator is tuned, the length of the antenna should be 132 feet, or about 40 metres (1 metre equals 3½ feet). To most easily obtain this length, what is often termed an antenna-counterpoise system may be used, as shown in the accompanying diagrams, the total length of the antenna and counterpoise being in each case 132 feet, and feeding taking place at either of two suitable places—in the centre, or quarter-length from the lower end. As the latter type is the better radiator, it should be used if sufficient length in the antenna (99 feet) can be obtained.

This is the simplest type of antenna for the beginner, though there are other types, employing different feed systems, and enabling the whole antenna to be strung well up in the clear—the disadvantage of the type described is that the radiator has to be brought into the station. However, it will

work quite well until the beginner becomes "wise" to the various systems.

The antenna and counterpoise may be ordinary receiving aerial wire, preferably enamelled, and the insulation at the ends and where they enter the station should be good. It must be noted that the lengths shown are those from the far insulators right to the antenna coil, and they should be made exact to within one foot. The antenna should be strung as high as possible, 30 feet being satisfactory, and the counterpoise need not be run directly underneath the antenna. It may be any suitable distance, not much beyond eight feet, above the ground.

As already mentioned, either system A (66 feet in both the antenna and counterpoise) or B (99 feet in the antenna and 33 in the counterpoise) may be used, but the latter is preferable if the lengths can be suitably worked in. The same antenna may also be used for receiving, a S.P.D.T. switch being arranged to throw it over to either transmitter or receiver.

We have now covered all the ground considered necessary in this article and if any reader requires further information it will be given on application to the writer, addressed to the "Record" office. In the next article there will be a description of the tuning of the transmitter and general operating practice.

Transmitting Without a License

Amateur's Successful Bluff

FRENCH listeners were very amused recently over a joke played on them by a young wireless experimenter, eighteen years old, who has been transmitting for a period of a year under the name of "Paris Experimental" without any authority whatsoever. He has also been sending communications to the Press with reference to his programmes, power, wavelength, etc., many of which have been printed.

Although the communications were not accurate as to the power, and the programmes were not regularly followed, yet transmissions have taken place on 300 metres as well as on the short-wave band, and many conjectures have been made as to the situation of his "station." Unfortunately, recent activities of the police led to his discovery and arrest.

"Radio Record and Electric Home Journal."

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

Radio Used by War Spies

An Ingenious Code

DURING the World War radio was extensively used by spies as a speedy and secret means of maintaining communication with headquarters. Telegraphy, of course, was the most common, and it ultimately led to the perfection of a spy-proof code cipher. It is a modification of the crossword puzzle.

A key is employed, consisting of a number of squares in each of which are all the letters of the alphabet. Over these squares is laid a piece of tracing-paper and a line is drawn from letter to letter, back and forth, spelling out the message. Then the zig-zag picture is wirelessly as a single unit. The receiving operator transfers the zig-zags to transparent paper, places them over his key and then untangles the message.

To wirelessly such a picture or map requires two cylinders of the same size, revolving at a predetermined speed in perfect synchronism. Size and speed can be varied at will, a fact that makes for the safety of the code, even though the key be stolen.

In the earlier part of the war some important radio messages from a German warship were once deciphered by accident. The messages had been intercepted and recorded by the British Admiralty, but the experts assigned to decipher them were baffled. All they could hear when the records were played was an unintelligible gibberish that defied translation.

Then a lucky accident led to the solution. One day the gramophone ran down, and the experts were amazed to hear the message being spoken in plain German! The slowing down of the instrument had made the talk understandable. The Germans had made records of their messages and sent them through the ether at terrific speed, but the slow gramophone had betrayed them.

Aviation Radio Routes

THREE main transcontinental aviation radio routes—northern, middle, and southern—were mapped out recently by the American Federal Radio Commission. Forty-six frequencies instead of the fourteen at present in use, were also allocated for aviation purposes.

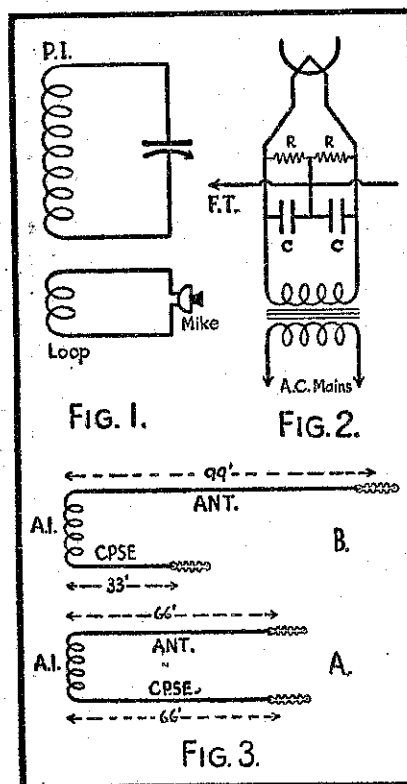
£30 — SCREEN - GRID RADIO CHASSIS, with Valves and Dynamic Speaker—or less Valves—£26.

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

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

Write for Details

ROYDS-HOWARD CO.
CHRISTCHURCH



Can Radio Waves be Heard Without a Receiver?



FROM time to time we hear of somebody claiming to be a "human wireless receiver," able to receive broadcast messages directly from the ether without the aid of a radio receiver. There are many cases on record also of people complaining that the wireless waves are upsetting their mental or their bodily health.

It is usual to regard these as cases of hallucination or, at any rate, of imagination, and to dismiss them at that.

I fail to see how it can be possible for anyone, however sensitive electrically he may be, to interpret wireless telephony directly through the body without the aid of some external device, and, so far as cases of this particular kind are concerned, I am afraid I am as sceptical as most other people.

Peculiar Effects.

AS regards the other question of radio waves affecting the bodily health, however, this is a possibility which is not so easily disposed of, for we know that radio waves produce high-frequency electric currents in any conductor, and although the human body would be regarded as a comparatively poor electrical conductor, in consequence of which the high-frequency currents set up would presumably be comparatively weak, this is really no criterion as to the effect which such currents might produce.

We know precious little about the electrical conditions of the body, and therefore we are quite unable to say, with any certainty, what effects even minute electric currents artificially set up might be expected to produce.

Personally, therefore, I should feel inclined to reserve judgment on the question as to whether some human beings might not be peculiarly sensitive to the effect of electro-magnetic waves.

In this connection we must remember that long before radio was even thought of various people have claimed to possess the "divining" power, and, although, so far as I am aware, this power has never been proved beyond question, there is a considerable body of opinion, even scientific opinion, in favour of it.

The "Divining" Theory.

THE interesting point in the present connection is that, according to the most acceptable theory of "divining," the power is due to a peculiar susceptibility on the part of the "diviner" to variations in the electrical conditions as between the earth and the air, these variations being brought about by the presence of liquid or mineral deposits in the earth.

The theory is, in fact, that the diviner is so sensitive to these differences in electrical conditions as he moves over the ground from one place to another that at particular points he will be so stimulated as to suffer muscular movements, the so-called

Dr. J. H. T. ROBERTS F.Inst.P.
is inclined to think not!

"divining rod" serving merely as an indicator of such movements. The virtue, if it be a virtue, resides not in the "rod," as is sometimes supposed, but in the "diviner."

Furthermore, to come to a much more familiar phenomenon, we have the hand-capacity or body-capacity effects which occur so frequently in the operation of a radio receiver.

It is true that these are sufficiently accounted for by the simple theory

Human Body," by Dr. W. E. Boyd, M.A., M.D., and which is published in the British "Journal of Radiology," March, 1930.

The author used for his experiments a two-valve direct-coupled amplifier, feeding into an Einthoven galvanometer. This galvanometer, under working conditions, had a sensitivity of about 200 divisions per millivolt. The human subject was connected to the grid of the first valve through a

Only recently a person wrote to us asking why he could once hear speech and music "coming from nowhere" without the aid of a radio receiver or other mechanical device whatsoever. Whether such a thing is possible or not is a matter of opinion. Dr. Roberts, whose views on this interesting phenomenon are recorded below, is, to quote his own words, "as sceptical as most other people." But there are other people of repute who disagree with him.

that the presence of a body—whether a human body or any other material substance—will affect the capacity conditions in the radio receiver in such a way as to precipitate reaction effects and generally cause disturbances in the receiver.

But that is not to say that one person may not have quite a different body capacity from another, and although no investigations (as far as I know) have been made on this point, it would be interesting to know whether the effect is purely a capacity effect—that is, regarding the human body as being simply an earthed conductor at zero potential throughout—or whether different persons have very different electrical influences upon the receiver.

"Magnetic" Persons.

WE are all familiar with the term "magnetic personality," and although we use the term metaphorically, I do not think anyone would be entitled to assert that it does not contain some grain of literal physical truth.

At any rate, whatever our attitude may be on these various matters, whether sceptical or open-minded, there is abundant evidence that the human body and, indeed, for all we know, the human brain as well, is susceptible in various subtle ways to electrical influences. It may be that in the future, when these effects are better understood, so far from regarding them as spurious, we may be able to turn them to good account.

These observations are prompted by a perusal of a very interesting paper, entitled "The Electric Field of the

variable condenser.

In most of the experiments carried out with this arrangement the human subject was a boy, who, owing to electrostatic charges being produced by the friction of ordinary clothes, had to be dressed up in a sleeveless suit made of copper gauze arranged so that different parts of the body could be investigated. It was found best to earth the skin surface of his feet.

Special Electrodes.

BY using special types of electrode and taking great care to avoid accidental effects due to friction with the clothes, friction of the hands of the operator, and even friction with the air, definite records were obtained of the electrical condition of different body regions.

It was shown conclusively that at particular points of the body there was produced a series of regular static potential variations relative to the earth and that these variations corresponded to the rate of the heart-beat.

Static Potentials.

IT is to be noted that no direct current of any kind could be present in the part of the circuit applied to the subject, owing to the interposition of the grid condenser. It seems, therefore, that at about each beat of the heart the whole skin of the body suffers a rise and fall in static potential.

The exact cause of this is not yet known, but it may relate to the blood flow in the skin capillaries rather than to the nerve impulse in the heart.

Again, using a somewhat similar arrangement, but with a different type of terminal or applicator, and moving this to different parts, it was found that every portion of the skin showed a potential difference relative to earth, and these potentials varied considerably from one part of the body to another. Indeed, the variations were so great that often the Einthoven galvanometer had to be de-sensitised from the condition mentioned above.

As would be expected, it was found that if the skin were wet or water-soaked the results were lessened—that is to say, a surface conduction was set up and the electro-static charges rapidly leaked away.

The detector arrangement, by virtue of its design, is continually sensitive only to alterations in static charge. If a non-variable charge is applied there is only a momentary response, the system soon adjusting itself again.

In this way any static effect that might be due to contact potential-difference between terminal and skin does not affect the results.

It was also found that the production of static electricity must be due either to minutely localised surface activity (as even a needle-point applicator showed differences between adjacent spots) or, as is more likely, to activity internal to the surface of the skin.

Mutual Interaction?

NOW we come to a striking paragraph in which the author summarises his conclusions. He says: "In view of these facts it becomes clear that the human body must be surrounded by a varying field of force of static origin, the variation being due to the charges originating in the body and also due to the continual readjustments accompanied by the redistribution of the lines of force of this field.

"An interaction of such fields must occur when people approach one another, and it is not difficult to visualise in a broad way the complex fields of force present in a large group of people.

"In this search there is some evidence that this field of static origin consists not merely of stationary lines or tubes of force, but possesses vibratory characteristics of a nature at present unknown, which vary in character with the origin and amount of potential concerned."

According to these highly interesting results the human being is not to be regarded as a neutral detached object, but as being electrically associated, perhaps very intimately, with surrounding objects and in particular with other human beings.—Dr. J. H. Roberts, in "Modern Wireless."

KNOW the time all over the world with a

DX Clock.

Printed on Heavy White Paper.

Posted in Cardboard Tube.

9d. Each.

Identification Wanted

STATION operating close to 3ZC, Christchurch, on December 29. Final items were recordings of flute solos with band accompaniment, and after playing "The End of a Perfect Day," the station closed down. Reception was very clear at 9.30 p.m., but the announcer's voice giving the call sign was so jumbled I could not catch it, and only heard him asking for reports. Not knowing where to write, I am unable to assist him.—C.M.R. (Wellington).

STATION heard on December 28 between 8 and 8.30 p.m. at R1 to R2. Heard on phones. Wavelength below 300 (1000 k.c.). Foreign talk. Items heard were:—(1) Talking; (2) Banjo or ukulele item; (3) Song "Ukulele Lady," with ukulele. Also heard on 27th.—"Foreign" (Wellington).

HEARD American December 26 2.15 a.m. on about 243 metres (1230 k.c.). Call sounded like KG—Salomi, California. Still going 3 a.m. (7 a.m. station time). He was on gramophone records, some of which were played especially for different persons in various parts of California. Some records heard were 2.22 a.m., Song, "Toymaker's Dream"; 2.25 a.m., Lew White, Organ solo, playing "Holy City," for lady at San Pedro, California, followed by song, "Jingle Bells"; 2.48 a.m. organ solo. Static heavy and fading bad.—"Clematis," (Raurimu).

DOES anyone know who the stranger is, operating in the early mornings, between 4YA and KF1? I picked him up at 2.18 on the 26th. Fairly strong carrier, but little modulation.—"Ray Dio," (Shannon).

AUSTRALIAN station (just below 2HD, Newcastle) on 210 (1430 k.c.). Closed down 11.35 p.m., December 31. Dial readings: 2HD, 25; unidentified station, 24. Another on 222 metres (1850 k.c.). Closed down 10.43 p.m. December 31. Dial readings:

2Z1, 36; 2XN, 35; unidentified station, 34.—R.J.R. (P.N.).

STATION heard on approx. 1510 k.c. (195 metres) at 10.30 p.m. 26/12/30. Fair volume, music slightly distorted. The only announcement heard was 5BC testing on 195 metres. Where is this station located?—M.B.S. (P.N.).

AUSTRALIAN on about 200 metres heard about 12.35 a.m. on January 2. Could not get call on account of static. Dial readings: 3GL on 16deg., 2HD (212 metres) on 13deg., unknown station on 8deg. Dial, 0deg.—180deg.—"Dink" (Helensville).

[3GL, Geelong Broadcasters Pty. Ltd., Geelong, 214 metres (1400 k.c.), power 50 watts in aerial.—Ed.]

Stations Identified

B. W. (Stratford).—3KZ is apparently correct. Details are 3KZ, 322 metres (1350 k.c.). Industrial Printing and Publishing Co., 24-30 Victoria Street, Carlton, N.Z. The station on 490 metres (612 k.c.) is a Jap. I make this call out to be JOAK, but this must be a mistake.—"Ray Dio" (Shannon).

D.X. Topics

Christmas Broadcasts from America.

ON Christmas night between 7.30 and 8.30 (New Zealand time) WTAM's Christmas party was coming in at

News and Views of the D.X. CLUB

good speaker strength. Americans previous to this had been weak with me for some time. At 1 o'clock on Boxing morning American stations were coming in strongly. WFAA, KFKB, KRLD, KMOX, and WOAI were all at good speaker strength and a host of others at less strength. They were all giving Christmas greetings at 7 a.m. on Christmas Day. The Americans appear to come in the best at midnight now (that is, their early morning).—W. L. Peters (Pahiatua).

Test Transmissions.

HAS 2YA ever been known to broadcast out of hours? At approximately 2.45 p.m. on Tuesday, December 30, I heard a gramophone record in progress on 2YA's frequency. I did not hear the beginning, but there was no announcement at the end. There was nothing on only a few minutes before. The volume was fully equal to that of 2YA. It seems rather strange that 2YA should play a record before opening time.—"Tiger" (Carterton).

[2YA comes on the air regularly at approximately the time mentioned. The transmissions are unofficial, and are for testing purposes only.—Ed.]

A Special Broadcast for New Zealand.

MANY of the American stations remained on the air all night from Christmas Eve (in U.S.A.) until well into the next morning. One in particular, KGW, Portland, was still going strong at 3 o'clock on the morning of Friday, 26th (i.e., 7 a.m., Thursday, Pacific Coast time). I first picked him up, on 483 m. (620 k.c.), at 12.45 p.m., when he was very weak. From about 1.30 a.m. on he was coming in at good speaker strength with dance music. I also logged WOAI at 1.5 o'clock the same morning. KFKB was logged at 10.46 o'clock on Thursday evening. A metre or two above KNX, WOAI comes in on 3ZC's wavelength.

Presenting a special Christmas programme, WTAM was picked up about 8 p.m. on Thursday, 25th, and held until 9 p.m., when, after an ensemble "Auld Lang Syne," he signed off. During the programme greetings were broadcast to New Zealand and the studio orchestra played the New Zealand National Anthem. WTAM was received at excellent loudspeaker strength. Another American I have logged recently is KJLX, Oakland, 341 m. (880 k.c.). He is found between 7HO and JOAK.—"Ray Dio" (Shannon).

Some Recently-Heard Americans.

"CABBAGE" (Gishorne).—I have an official programme of KTM dated September 27, 1930, and their power

is rated as 1000 watts, so I am inclined to stand by my previous statement unless you can prove to me otherwise. I hardly think their power would be decreased since last September. Perhaps some of the "old-timers" would come to our aid.

"Jaka" (Wellington).—Your report of WTAM, Cleveland, Ohio, is interesting. I have not tried for him at the time you mention, but logged him the two Sunday evenings previous to Christmas at about 7.10 p.m. and held him till approximately 8.25 p.m., when he closed down. On both occasions he was acknowledging subscriptions to the Christmas Cheer Fund for the poor of their city. Musical items were given in between, and on the first Sunday I had the pleasure of hearing the best vocal quartet I have yet heard from America. When closing down he said he would be on the air again at 6.59 a.m.

On Christmas night I tuned in WTAM with Christmas carols and had him for two hours at wonderful strength. It is interesting to note that they put on extracts from Dickens's "Christmas Carol" recently broadcast by 2YA, so I had an impression of an American "Scrooge" with his "wonderful" accent. I have recently added WTIC, Hartford, Connecticut, to my log. This is my most distant station to date. KFKB, Milford, Kansas, has been coming in well the last few evenings. I get him from approximately 10.15 p.m. (when he is just starting up) onwards. I am glad to see "Kauspanka" (Hawke's Bay) on the job again. I really thought he had gone with several of the other "old-timers" on a tour with "Rip Van Winkle." Sunday, December 28, is the best night I have experienced this summer. I have recently received verification from WENR and KFVB. The latter seems very pleased to receive reports on their station and asked me to send in more later.—"Kia Ora" (Frankton Junction).

An Unusual Night.

JANUARY 1 was an excellent night for Americans. There were so many on parts of the dial that it was impossible to separate them. Some of the eastern stations were relaying New Year celebrations from the Pacific Coast. One item of interest was the relay of the Mission Bells of California, which have rung in the New Year for 200 years. Reception was excellent.—M.B.S. (Palmerston North).

Recent Loggings.

THE following stations have been added to my log during the last week:—WTAM, Cleveland, 1070 k.c. (280.2 metres); 7LA, Launceston, 1100 k.c. (278 metres); 2AY, Albany, 1320 k.c. (227 metres); KMA, Shenandoah, 930 k.c. (322.4 metres); WOAI, Texas, 1190 k.c. (252 metres). On 25th ult. I listened to WTAM for an hour and a half, while broadcasting a special three-hour Christmas Eve programme. Reception was remarkably clear, and the volume was sufficient for the items to be heard all over the house. On 1st inst. the same station broadcast by re-

DE FOREST VALVES

"Made by the man who invented Broadcasting"

The right selection of radio valves makes an amazing difference in the pleasure you get from radio.

De Forest Audions have set the world standard for 24 years. They are made in the laboratories of Dr. Lee De Forest, inventor of the first radio valve.

Write for descriptive Leaflets.

INTERNATIONAL RADIO CO. Ltd.

22 BLAIR STREET, WELLINGTON

Factory Agents.

YOU CAN'T BUY A BETTER VALVE THAN

Mullard
THE MASTER VALVE

lay from San Francisco a special programme to welcome in the New Year. KTHS at the same time were broadcasting a coast-to-coast programme for the same purpose. Several other American stations were also coming in well.—Guy C. Holmes (Masterton.)

Well-known Short-waver Closed Down.

ON a recent verification from KGO it is stated that W6XN has gone off the air.—B.H.B. (Masterton.)

Another Australian?

B.W. (Stratford).—I have definitely identified the Melbourne station on 222 m. (1360 kc.), as 3KZ. I tuned into this station on New Year's Eve at 11.35, just in time to hear call and to make sure I waited till end of next item, which was "You and My Old Gull-er." Is the new Canberra station on the air yet? On New Year's Eve at 11.20 p.m. I heard a station on 2ZF's wave-length. Canberra was mentioned frequently. A few nights before I heard them giving an advert for a certain business firm. The call is either 2AD or 2AC. The announcer of this station, like those of other Australian stations, seems to be in a hurry to get his job over as quickly as possible, hence indistinct announcing.—R.J.R. (Palmerston North.)

Daylight Reception from 2FC.

"CABBAGE" (Gisborne).—KTM has a power of 1000 watts, not 500. This is according to literature (dated December 2) from Los Angeles. An excellent dance frolic was arranged by the American N.B.C. on January 1 from 7 to 8.30 p.m. (N.Z.S.T.). This night proved excellent for long-distance reception. 2FC has been very strong at 2 p.m. lately. Have any other D.X-ers noticed this?—S. R. Ellis (Okato).

A Correction.

R. J.R. (Palmerston North) and B.W. (Stratford).—3KZ, Carlton, Melbourne, is correct call of station operating on 1360 (220 metres) on December 20, and almost every night since. Power, 200 watts. 2AY, Albury, is not new by any means, but is not often heard, having a power of only 50 watts output.—J.P.C. (P.N.)

Notes on Verifications.

I RECEIVED a very interesting batch of mail from America recently, but it arrived just a day too late for the competition. Among the verifications received were: KMA, Shendadoah; CKMO, Vancouver; WTIC, Hartford, Conn.; and KDB, Santa Barbara. The last named sent me two signed photos of the "Rainbow Boys," who are often heard over KDB. The following is an extract from a letter from this station: "We are on the air Sunday, Monday, Tuesday, Thursday, and Friday from 11.30 p.m. to 3.0 a.m., C.S.T., with our 'Midnite Prowl' for D.X. fans." Wave-length is 411 metres (730 kc.), and power, 50 watts. Station KMO, Tacoma, seem delighted to hear they are being heard in New Zealand. As also were KWG, Stockton, and KMA, Shendadoah. The new Australian station, 2NC, comes in here at splendid volume often exceeding that of the A stations.—V. Cunliffe (Tasman.)

2NC an A Class Station.

I NOTICE 2NC, Beresfield, Newcastle, is described by a number of D.X-ers as a B class station. This station is owned and operated by the A.B.C. and is classed as A. Power, 2 k.w., N.Z. rating. At the official opening on De-

THE advent of radio programmes in Norway has done much to enliven the rather dull and dreary lives of the small farmers and independent land-owners. These people, during a short summer, draw a precarious livelihood from the soil and devote the winter months to fishing in the numerous fjords, which cut into the land and reach for many miles up the submerged valleys dominated by ranges of mountains.

In many instances these almost impassable natural barriers cut off the inhabitants from what might otherwise be neighbouring villages. However, through the enterprise of the Norwegian broadcasting companies, these lonely hamlets are now kept in constant touch with the outside world, even when the heavy winter snowfalls prevent any possible journeying to a more flourishing centre, in closer communication with the capital and its brighter life.

Considerable use in Norway also has been made of broadcast telephony for the benefit of that country's large fishing fleet. Indeed, as far back as 1895, experiments were carried out with a

speech explained the reason for the erection of this station, which was to relay programmes and events from the main stations in Australia to districts which, owing to atmospheric and other conditions, were very seldom able to receive these programmes direct. Another station of the same class, 4RK, Rockhampton, will be erected when funds allow. 2NC is on the air every night. If D.X-ers will look up their "Radio Record" of September 5 they will find some useful information re Australian B class stations.

B.W. (Stratford).—I have been trying to identify station on 610 kc. (490 metres) for some nights past. I have an idea it is XOW, Nanking, China, but would like to be certain. Stick to it and see what we can do between us. Guy C. Holmes (Masterton). I heard KTHS, Arkansas, on the 20th, till 10.15 p.m. They were celebrating their sixth birthday, and must have kept going till daylight. I also logged 3GL, Geelong, the same night. On the morning of Boxing Day, just after 12 a.m., I was listening to Americans on their Christmas Day stunts. They were unique in their methods. From 7.30 p.m., January 1, till 2.50 a.m., on the second, I had a royal time. I listened in to 31 Americans. It was a phenomenal night, and I never hope to get better reception. I collected enough data to write to six stations. What pleased me most was reception of KZRM, Manila, to whom I listened for 1½ hours. Strength was excellent. Announcer gave his call only once to my knowledge, and that was when they signed off at 2.50 a.m. He pronounced the Z as Zee. Reception over ten Americans could be heard all over the house. I also logged on January 1 2MD, Mossvale, and 7LA, Launceston. J.P.C. (P.N.)

Radio in Norway

Transmissions for Fishing-Boats

view to providing an efficient wireless service of weather forecasts, storm warnings and the transmission of news bulletins of interest to craft on the high seas.

Later, in view of its great advantages, the service was extended to include other stations on the coast, and to-day from several coastal radio stations transmissions are effected at regular periods. Thus the masters of trawlers, smacks, and motor-cutters on the more distant fishing grounds may obtain all information in respect of probable weather conditions, market reports and any items of information which may assist them in their daily work.

Whereas the installation of radio telegraphy apparatus would have been in most instances a difficult one, most units of Norway's fishing fleet, however small, are equipped with simple valve receivers which permit the reception of these useful land transmissions at comparatively great distances.

In the same manner, these small "sets" also give entertainment to the crews in their leisure hours and keep them in touch with happenings on the mainland during their long cruises.

DX-ing Under Difficulties

Bovine Interference

A WELL-KNOWN New Zealand amateur transmitter has taken to dairy farming, but is finding that his hobby is suffering in consequence. He complains that the cows demand to be milked just when DX is at its best. They are sure to come bellowing round the shack when he is having an interesting chat with Patagonia.

He has found a way out of his difficulty, however, for he now keeps a packet of crackers handy to the key, and by pitching these through the window contrives to keep his long distance schedules. He does not mention what effect this static eliminator has upon his butter-fat cheques.

Mobile Wireless Stations

For Service in Egypt

A TRIO of interesting vehicles has recently been commissioned for a special form of service in Egypt. In reality the machines are mobile wireless stations and they comprise 30cwt. six-wheel chassis carrying specially constructed bodies in which up-to-date wireless equipment is installed. The vehicles will be used in areas which are not supplied by the land telegraph and telephone system, so that practically any point in a wide range of country on each side of the River Nile can be linked up with the main telegraph system.

The Egyptian State Telegraph Department decided upon the use of six-wheelers so that the mobility of the outfits is not affected, whether the machines be required to operate on hard or soft desert land.

Each vehicle carries a medium-wave ½-kilowatt telegraph transmitter and a small portable short-wave transmitter of 100 watts power. The aerial is suspended from 70ft. masts, which are made in sections normally carried on the roof of the body. The wavelengths employed are between 600 metres and 2150 metres on the medium-wave set and from 20 metres to 50 metres on the short-wave set.

A compact power-generating unit is carried, and can be removed from the interior by sliding it along a runway. After use it can be re-housed by employing the winch gearing which forms part of the equipment.

The body of each vehicle has been specially constructed so that it can work under high temperatures, double sides and roof sections of teak being used, the intervening spaces serving to help in keeping the interior cool.

Egypt is a country in which, apart from the Delta, the towns and cities with their connecting railway and telegraph communications lie along a narrow strip of land bordering the Nile, with large areas of sparsely inhabited and desert country on each side. In these circumstances the mobile wireless stations should prove of particular value in providing special extensions of the existing telegraph facilities, either as a regular service or in times of emergency.

"DX" CLOCKS.

No radio enthusiast should be without the "Radio Record" "DX" CLOCK, as it correctly gauges the time as compared with ours in every part of the world.

By using the "DX" CLOCK, the right time to tune in for overseas stations may be obtained, and with use it will be found to be of permanent value to all radio receiver owners.

Send for Your Copy To-day. Price 9d.

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

A WELLINGTON listener asked "Switch's" advice on the positions of the valves in his a.c. set. It appears that he had had their characteristics tested with electrical meters, and found that some of them were down a little. In such a case it is always advisable to place the best valve in the first radio-frequency stage, the next best in the second r.f. stage, and so on.

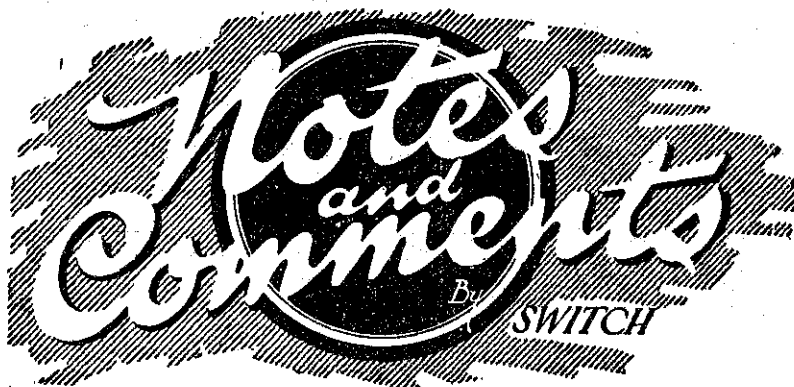
THE above acts as a reminder that all listeners should have their valves tested periodically by an expert. Many radiotricians are now equipped with meters for testing a.c. valves, and, generally speaking, are willing to test any listener's valves gratis. Valves which do not show a 70 per cent. standard of efficiency should be discarded if the listener desires to go in for long-distance reception. A rearrangement of the valves in their respective sockets in the set should be adopted after the characteristics of each have been read and noted.

WHILE static was quiescent on New Year's Eve and early on New Year's morn, it came back with violence two nights later. The only station that could be tolerated on the night of January 2 was 2FC, Sydney. This station is on a wave-length which suffers less from static interference than those on the higher frequencies.

ONE "dud" valve in the most perfect receiving set acts as a brake on long-distance reception. After all, the best of receiving sets are only as good

as their valves. Then again, occasionally valves of even the highest grade will sometimes not come up to standard, and will drop in efficiency in a much briefer period than they should. The only method of knowing exactly how one's valves are standing up to their work is to have them tested by an expert.

SHORTLY after 1.30 o'clock the other morning "Switch" heard a strange station on the wave-length of 3AR, Melbourne, broadcasting music. 3AR had been heard signing off an hour previously, so that it was not the Melbourne station "Switch" heard later. Besides, the volume was only about 50 per cent. of that of 3AR. "Switch" endeavoured, but without success, to pick up the call-sign of the stranger. For some time past a station has been heard heterodyning 3AR, and possibly the stranger was that station.



SIR DOUGLAS MAWSON'S Antarctic exploration ship Discovery, now far to the south of New Zealand, carries a short-wave Morse transmitter. The call sign is VPNQ. The wavelength is about 30 metres, and the Discovery may be heard in the evenings from about 11 p.m. onwards. It is not quite clear from actual listening-in whether a regular "sked" is kept every evening, but a watch at that hour and on about that wavelength will bring reward. The Discovery's signal note is about 500 to 800 cycles, and signals come through strongly and are easy to copy.

CONCERNING the projected English short-wave "Empire"—or "World"—broadcasting, a Melbourne writer says: "I venture the opinion that there will be some considerable time before this can become a definite and accomplished fact. The Empire Marketing Board is now discussing a scheme for sponsoring the programmes, which, to a great extent, will overcome the financial difficulties, but the technical difficulties remain, and they are tremendous. But what an alluring prospect. To think that the lone settler in East Africa may hear, say, Big Ben striking in London—take part in the Armistice service at the Cenotaph in Whitehall, or for a tea planter in Ceylon to be able to listen to a running commentary of a cup final—for British listeners the world over to be able to hear the King's Speech at the opening of the Imperial Conference—what a wonderful strengthener to the links that bind us to the Empire! Difference in time in the various Dominions and colonies is a serious factor which will have to be considered. Many important transmissions take place in London at a time which corresponds to 3 a.m. or 4 a.m. in Australia—a time at which the radio audience is practically nil."

THE latest Australian returns show that there are now no fewer than 327,684 licensed broadcast listeners. Following are the details for each State:—

		Ratio per 100
Vic.	142,221	Vic. 7.99
N.S.W.	117,680	N.S.W. 4.74
Qld.	24,157	Qld. 2.57
S.A.	28,200	S.A. 4.86
W.A.	7,757	W.A. 1.86
Tas.	7,669	Tas. 3.57
C'wealth .	327,684	C'wealth .. 5.10



MRS. GRACE EMPSON,
mezzo-soprano, who will next appear
from 4YA on January 16.

—Steffano Webb Photo.

and we must take it as it comes, shutting the receiver off when the noise is particularly bad."

PERFORMING rights charges are now a serious menace to the well-being of broadcasting in New Zealand. The Russian authorities (whatever their sins may be) are carrying out their principles even in radio administration. It has been officially decided that musicians, authors, and artists will receive no additional compensation for broadcasting, nor royalties for the performance of their works. It is argued that if a microphone is placed on the stage, the musician makes no extra effort; and, instead of expecting compensation, the composer should be grateful for the advertisement given his works.

A YOUTH who recently purchased a second-hand single-valve regenerative set asked the writer how to avoid interference with other listeners. A receiver, if allowed to oscillate, can often cause interference in neighbouring receivers. The single valve regenerative set in particular is a very bad offender, and can cause just as much trouble as a bigger receiver, so have a thought for others, and do not allow the set to "whistle" when listening to any transmission. By wetting a finger and touching the lead-in wire it can be ascertained whether the set is oscillating. A loud click will be heard in the headphones or loudspeaker when the finger touches the lead-in wire, if the set is oscillating, and thus creating interference.

KNOW the time all over the world with a
DX Clock.
9d, Each, Posted.
"Radio Record," Box 1032, Wellington.

Build Your Own Receiver It's Cheaper!

But be sure you build a receiver that will give you something outstanding in performance. Choose a Lissen Screen-Grid Three Kit Set—it's easy to build, and the results will delight you. In a few hours you can transform the box of parts into a remarkably neat, compact, and perfectly balanced receiver, that gives razor-edge tuning, with range, volume and rich, clear tone. Your nearest radio dealer will give you full particulars of the Lissen S.G. 3—See him today.

LISSEN

SCREEN-GRID THREE

If you have any difficulty in obtaining particulars write to
N.Z. Distributors:
ABEL, SMEETON, LTD.,
27-29, Customs St. E., Auckland.

PRICE OF KIT,
with full instructions and diagrams for construction—
Or complete with Speaker, Valves, and Batteries (no cabinet or aerial)—
£13/12/-

£6

Short-wave Notes

Shortwaver at Bucharest.

THE shortwave transmitter recently installed at Bucharest is reported to have completed tests, and to be working on a regular schedule. Transmissions take place each Thursday and Sunday, from 7 a.m. to 10 a.m., New Zealand summer time, on a wavelength of 21.5 metres.

Rabat—Radio Maroc.

A NEW shortwave station, working on 23 metres, relays the main station programme. This station is crystal-controlled and is rated at 6 kilowatts. The regular operating times are from 10 p.m. to 1 a.m. daily (N.Z. summer time). They have been heard testing at other times.

W9XAA, Chicago.

A LETTER has just been received from this station. The following extract, regarding its unique location, is of interest: "It is located in the north-east tower of Navy Pier, Chicago, Illinois. The pier is a municipal structure extending 5000 feet from the shore into Lake Michigan. W9XAA and its sister broadcast station, WCFL, are at the extreme eastern end of the pier, a mile out in the lake."

3RO, Rome.

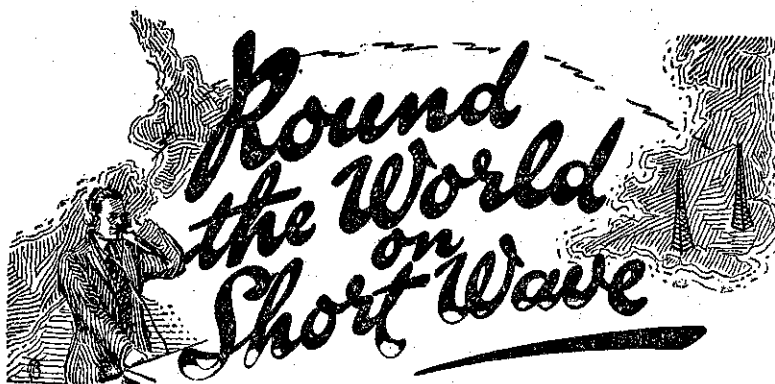
ON 25.4 metres, they were quite good at R9 at 7 a.m. on January 2. A stranger was heard at the same time with the same programme on about 24.5 metres. The lady announcer, giving the call "Radio Roma," was distinctly heard on this shorter wavelength, so it must have been a relay or rebroadcast of the Rome station. Volume was about R4 with a slight gushiness.

PCJ, Holland.

VERY little has been heard of PCJ lately, but on Saturday afternoon (January 3) the special Australian and New Zealand programme came in quite well from 5.18 p.m. till signing off at 6.4 p.m. Volume R8-9, increasing to R9 with slight gush and medium fading.

American Amateur on 40-Metre Band.

AN American amateur has been heard after 7 p.m. on Sunday, December 28, and Saturday, January 3, working



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.

on about 43 metres. His 'phone was quite good at R6 each time, but Morse interference was troublesome.

New Year Broadcasts.

MR. SELLENS has sent an interesting account of New Year celebrations in England and America. This appears in an earlier section of the paper, following Mr. Levy's account of the N.Z. and Australian broadcasts.

Short-wave News

STATION 3RO, Rome, has been heard lately making tests on wavelengths of 80 metres and 25.4 metres. On the 80-metre wave they have been heard a little before 5 o'clock in the morning, coming in very strong and clear.

The station heard by Mr. Sellens on 46 metres in the mornings has been identified as a Portuguese station. He gives his call-sign as CT3AG, and has also been heard late at night at different periods. For some time past a station has been heard testing on 58 metres. He generally opens up a little after midnight, and I think he is another Portuguese station, because that country has been mentioned. Also the foreign language seemed similar. Sunday, December 28, was the first time good English was spoken, and I recognised his call as OVJMPT. A word after this sounds like Prague. He sometimes comes up to R8. On looking up one of the latest call-books this station is not listed, but another is listed from there on a wave of 60 metres (no call-sign), located at Bratislava (Czechoslovakia). ZL2AW has also heard this station operating. Another station which works very near to the above station I have also heard and I believe the call-sign is PMY, Java.

On three nights last week after midnight a station was heard on 50 metres, on each occasion coming at good strength. Very few announcements were given. The language used was Italian, so it is probably the new Vatican station. Station on 60 metres has been heard, call W3XK, and is owned by the Jenkins Experimental Laboratories of America. The Canadian station WGECL, 48.5 metres, was heard broadcasting a church service from Winnipeg on Christmas Night a little after 7 p.m. WIXAZ (?), operated by the Western Electric Co., is also heard after 12 p.m., on an early morning programme. I am inclined to

think this company operates two short-wave stations, because on listening to his midnight transmissions his call is WIXAD, relaying from WDD and WDDL. W9XAA has been heard between 6 a.m. and 6.30 a.m. on 49-metre wave. Also an American with call W9XEC. I have failed to get his location.

The American amateur phone stations on the 80-metre band are coming in quite well just now. The best time to tune for them is 7 p.m. and 8 p.m. (our time). Some of these stations reach the strength of R1 to 8. NRH is still heard at good strength at times.—A. P. Morrison (Wellington).

In his last letter he mentions that he is still using $7\frac{1}{2}$ watts and sends a photo. (See page 6.—Ed.)

Short-wave Station NRH

World-wide Reputation

MR. R. L. JONES (Wellington) writes: The "wonder" station of the world is NRH, located about 4000 feet above sea level at Heredia, in Costa Rica, Central America. The operator, Mr. Amando Cespedes Marin, is a photographer by profession. With his little $7\frac{1}{2}$ -watt station using 550 volts, he has demonstrated to the world that the wonders of radio are by no means exhausted. There is hardly a place in the world where NRH has not been heard on short-wave phone work, judging by the extensive list of places from which reception has been reported to Heredia.

The diploma issued to listeners by Mr. Cespedes Marin is very interesting and attractive, and certainly worth keeping. This diploma is forwarded to listeners who send in reports to NRH. Mr. Marin is publishing a 250-page book containing his experiences, etc., and extracts from world reports on reception. NRH is run "purely for the fun of the game"—in the director's own words. The Government has granted him free postal facilities.

The diploma measures about $14 \times 10\frac{1}{2}$ inches, and is lithographed in four-colour work. It contains a photo. of Mr. Cespedes Marin, one of the transmitter, another of his apartments, also a certificate in Spanish and English, and bears an official number, with the date of issue and signature of the station director. Incidentally, NRH

stated that 10 reports had been received from Australia. Following is the text of the certificate:—

"Certifica que Mr. R. Leslie Jones, Wellington, does hear in far off New Zealand our wonder $7\frac{1}{2}$ watts like in France, Australia, Venezuela, Trinidad, etc." Then follows the commemoration in both Spanish and English; also the following list of places from which reception has been reported: England, Espana, Canada, U.S.A., Mexico, Cuba, Jamaica, Haiti, Bahamas, Republica Dominicana, Guatemala, Salvador, Honduras, Nicaragua, Costa Rica, Puerto Rico, Panama, Canal Zone, Colombia, Equador, Peru, Brazil.

Several specimen pages of the book "Me and Little Radio NRH" were also forwarded, and proved very interesting indeed. The antenna and counterpoise are 72ft. long, inverted L type. The leg of the L is 48ft. long, and both antenna and counterpoise three feet apart. The western mast is 72ft. high and the eastern mast 42 feet, and therefore the antenna has an obtuse angle and the counterpoise is acute.

The antenna itself is a single cable wire. The high frequency on the antenna is almost half-ampere, sometimes more, and oscillator plate shows exactly 60 milliamperes. The modulation plate shows 20-25 milliamperes. The circuit T.P.T.G., as the old stand-by, but laid out by the owner. Situation, 3820ft. above sea level, amid a plateau between mountain ranges.

Radio Research

THE National Research Council of Canada has established a Radio Research Committee, modelled on similar boards functioning in Great Britain, Australia, and other countries, and will work in close co-operation with the radio division of the Department of Marine. Study of the frequency standard problem will be one of the first to be undertaken by the committee. Others will be refraction over water, impediments to long distance transmission, and effect of both the aurora and meteorological conditions on wave propagation.

The good New Year will reduce prices of Radio and most electric products. You will like advice and ready service. Both are given whether you select at my shop or send your orders by mail. Every thing electrical stocked at the lowest ruling prices.

BOB HORROBIN

Flashlight Corner, 2 Courtenay Pl., WELLINGTON.
Quick Repairs. 'Phone 22-357.

A. J. PARK & SON

Patent Attorneys

Routh's Buildings,
Featherston Street,
WELLINGTON

A Boon and Companion it will prove to be throughout the coming Year.

MACK'S FAMOUS ADD-A-PHONE

Its small size permits you to carry it with you on your holidays

WHEREVER YOU MAY GO

And always prove

AN EFFICIENT LITTLE SET
WITH A WORLD-WIDE
RADIUS

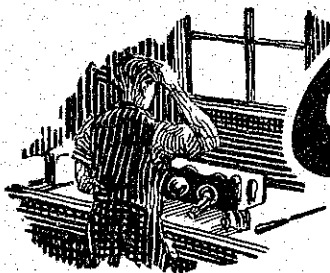
For Reception.

Yes Sir!
It's New Zealand-made—that makes you.

So Wire, Write, Ring or Call

**MACK'S RADIO
SERVICE,**

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



Questions and Answers



R.E.C. (Napier): I wish to convert a set into "R. the W. Three." Would an Emco and Ferranti transformer be suitable?—Yes.

2. What Philips valves would be suitable? Either four or six volts.

A.: Four volt: A415 detector, A409 first audio, B409 second audio. Six volt: A415, A609, and B605. This combination will be an excellent one.

3. What is the material required for an Edison type cell?

A.: Write to A. R. Harris Coy., Christchurch, for full particulars of this cell.

SAY SO. (North Auckland): Could the secondary coil for the H.R. be space wound?

A.: Yes; 80 turns of 24 gauge copper wire spaced by half its own width would be suitable for your purposes. It would be little, if any, better than the unspaced d.s.c.

2. Using 30 d.s.c. for aerial and regeneraformer primary, how many turns are required to suit 2 1/2 in. former? An s.g. valve is used in the r.f. stage.

A.: Try 30 turns tap on the aerial and for the primary 40 turns. If oscillation is troublesome reduce the number of primary turns on the regeneraformer.

3. How many turns and what size tickler should be used?

A.: 1 1/2 in. diameter and about 40 turns of wire.

4. Would anything be gained by using a primary in the regeneraformer of the screen grid valve?

A.: A primary gives much the better results. Look for our description of the two valve screen grid B.D. It is on its way.

5. I intend using swinging coil reaction with the broadcast band of m set and plate voltage control for short waves. Would this be satisfactory?

A.: Yes, but why not use plate voltage control for reaction on long and short waves?

6. What four volt valves would be used with a Daniell cell "A" battery to suit a three-valve screen grid set?

A.: There are a large number of valves of different makes that you could use and we do not make it a practice of recommending valves where the makes desired are not stated. Use a special detector and a high gain power valve. See that the filament consumption is under half an amp.

7. Where should fixed condensers be placed in the enclosed circuit?

A.: From the screen grid of your valve to earth: capacity 1 mfd. .001 mfd. across the primary of the first transformer and if necessary 1 mfd. from B plus r.f. to earth.

8. What value should the grid condenser and leak be?

A.: .00025 mfd. and 5 megohms.

9. Is the enclosed circuit O.K. or should the primary of the r.f. transformer be omitted?

A.: The circuit seems quite a good one, but more will be said about screen grid circuits in forthcoming "R.R.'s" and in the "Guide."

WIREMU (Wellington): Wait for our articles in the circuits for the Crystaphile by "Cathode."

2. Apart from expense do you think the Differential Two would give better results?—Yes.

SNEDDO (Whangarei): I made up the B.D. two r.f., but when I put it on a good amplifier results are disappointing as regards distance. Everything is quite in order and assembled as in the "Listeners' Guide."

A.: Without a definite clue we cannot help you. Have you tried substituting the valves and checking through for weak or defective condensers? Bring the aerial into the first stage, that is, to the top of the grid coil of the second

coil. If results are just the same then there is something wrong with the first stage. Will your set oscillate, and have you tried varying the voltages, and what voltage are you using?

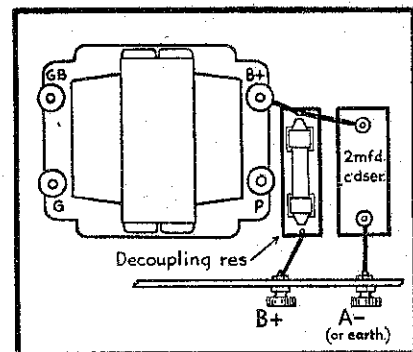
A.B. (Wellington): I have built a screen-grid set, and it has just recently developed crackling. I tried another set with the batteries and found that everything was in order.

A.: We presume you tried the same speaker on the other set. If not, that is a very likely cause of your trouble. Look for a broken-down condenser or a loose connection, as this appears to be the trouble.

2. How many turns are needed on a 3 in. former to suit a .00035 condenser with 24 gauge d.c.c. wire?—65.

OSCAR (Hikurangi): How can I obtain volume without distortion. When I advance the rheostat I get an audio howl. I am using two similar high-grade transformers.

A.: Try reversing the primary connections to one of the transformers. If this does no good put the connections back



as they were and incorporate an anti-motor-boating device such as is shown in the accompanying sketch.

STEIN (P.N.): What would be the best combination of valves for my set?

A.: Five R.C.A. 227's, two R.C.A. (Ceco, Cunningham, Majestic or other high-class output valves, and one 280 of these makes.

MESPOD (Paeroa): What is the space between the coils in the Differential One?—1-8 in.

2. What is meant by a differential condenser?

A.: One with three distinct sets of plates, two fixed and one moving.

3. Would a .00013 condenser do for reaction?

A.: If it is differential, yes.

4. Would a pentode valve work in the audio stage of a differential set?

A.: A high gain power valve such as a new B409 would be better.

PEANUT (Christchurch): Does the average home-built Differential One bring in many short-wave stations on the phones?

A.: Yes, you can get stations on a world-wide range on phones.

2. If I built this set using a two-volt valve and about 35 volts plate supply

and its output plug directly into an a.c. or is an output transformer necessary?

A.: Unless you know if there is an input transformer already in the set, your best plan would be to incorporate a 3 1/2 to 1 output transformer in the adapter. You need 45 volts plate supply.

3. I get a good deal of static and interference on my a.c. set. Would the Differential One using an adapter be likely to give much quieter reception?—No.

BEN ADHEM (Oamaru): Would a Ferrand inductor speaker be suitable for the Loftin Four?—Yes.

2. What ratio transformer would be required for it?—1-1.

3. Would a 500 volt working condenser be satisfactory with 650 volts?

A.: It is a bit risky. Be on the safe side and use two 245's.

4. How many secondary turns on a transformer if I use the 245's?

A.: That depends on the core. Transformers were fully described in the 1929 "Guide." 425 volts secondary are needed.

N.Z.'S OWN RADIO BOOKSHOP

The TE ARO BOOK DEPOT, Wellington.

NEW ARRIVALS

At Last We Have It—"Wireless, the Modern Magic Carpet," by Ralph Stranger. 4/9 posted. Simple language anyone can follow.

"Trouble Shooter's Manual," by John F. Rider. No dealer should miss this. 15/9.

"Mathematics of Radio," by John F. Rider. No dealer should miss this. 10/6.

"Radio Operating Questions and Answers," by Nilson and Hornung. 14/-.

"Radio Citizens' Call Book," December, 1930. 2/9.

"Radio Amateur Handbook" (Handy's), 7th edition. In enormous demand. 5/3.

"The All-Electric Receiver," A "Listener In" Handbook, by V.K.-3GT. 3/6.

"Modern Sets, 1931." Includes Loftin-White Amplifier, Special S.W. Sets and many others. 1/9.

"Handy's Handbook," 7th edition. 5/3 posted.

"Theory of Radio Communication," by F. L. G. 12/-.

"Principles of Radio Communication," by Morecroft. 41/6.

"Direction Finding," by Keen. 27/-.

"Radio Data Charts," by Bently. 7/9.

"Seeing by Wireless" (Television), by Ralph Stranger. 1/6.

"Collins' Wireless Diary, 1931." 4/- posted (Amateurs and Broadcasters—130 pages useful information).

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

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

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

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

Write us re any radio literature required. New stocks in every mail.

TE ARO BOOK DEPOT
64 Courtenay Place, Wellington.

CORRESPONDENTS 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.

Although you may live in the country—

DON'T BE NEGLECTED

USE OUR UNIQUE MAIL ORDER SERVICE—IT WAS SPECIALLY INAUGURATED FOR COUNTRY LISTENERS.

We supply WHAT YOU WANT at LOWEST CITY PRICES, POST FREE, and DON'T WASTE TIME in executing orders.

For these reasons our business is Growing Rapidly.

1931 PRICE LIST AVAILABLE SHORTLY.

— The —
C.A.S.

(Country Accessories Supply)
29 VENTNOR STREET, SEATOWN
WELLINGTON.

5. We have some big voltage surges here. Is a voltage regulation amperite available?

A.: We cannot say for certain if they are.

6. Is there any way of overcoming the undesirable state that is caused when the power is turned on the 250 is left for a few seconds without bias?

A.: You could incorporate a switch in the plate circuit of the 250, and turn it on about 30 seconds after the filament.

7. Some months ago I bought a valve which gave symptoms of a loose connection. I replaced it and now after some months' rest I find it quite satisfactory. Could you explain?

A.: Sorry, we cannot. Are you sure it was not in the socket or elsewhere in the set?

W.N. (Gisborne): Can I get better results with a 65 feet aerial than a 40 feet one?—Yes.

ROSS (Woodville): What valves do you recommend for my American-built receiver?

A.: Four 221's and a high gain power valve such as B605 in the last stage, but as you may have difficulty in getting the 221's you could use 201A's or A609's in the four stages. From what you say it seems that your valves are at fault.

ALMOST (Auckland): Do I have the best combination of valves for my set?—Yes.

2. Where can I obtain a diagram of an a.c. eliminator, and what will be the total cost?

A.: A suitable eliminator will be described in the 1931 "Guide." We cannot yet state what its cost will be.

SEARCHER (Kaikohe): I wish to make a battery set suitable for a radio gramophone. Which are the best circuits? Loftin-Four, H.R. Four, S.G. B.D. Four, Differential Four?

A.: The Loftin-Four is ruled out on account of its being a.c. The choice probably lies between the B.D. and the Differential Four. Both of these use screen grid. The Differential would probably be the better for shortwave work. A fair amount will be published on this topic shortly and in the 1931 "Guide."

R. B. (Nelson).—What current should the 90-volt Leclanche battery of torch cells deliver?—About 10 m-amps.

They read only a volt per cell. Why? A.: It seems that they are more or less polarised, but they are working satisfactorily there is nothing to worry about. If you can, leave them for a while without using them. They may recover, and then be quite all right.

3. Should the area of the zinc plates be equal to the carbon rod area?

A.: It is not at all material, the zinc could possibly be a little thinner. The thicker it is the longer it will last.

4. Should commercial or pure zinc be used?

A.: Commercial zinc, which is cheaper, is really quite satisfactory, though pure zinc would last longer.

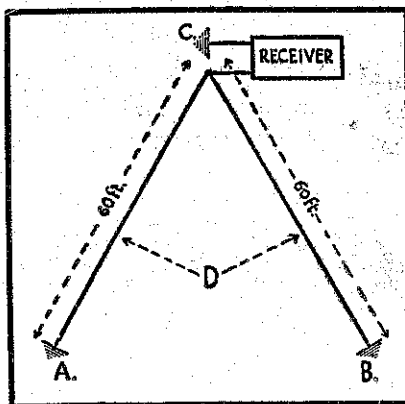
5. Could a half amp amperite be used with two 1-amp valve in series?—Yes.

6. Would it be satisfactory with 1-amp valve?

A.: The filament voltage on this would be about 5.5 volts instead of 5, which would not be altogether satisfactory.

RECORDITE (N.P.). I found that static and interference was reduced by at least 75 per cent. without any corresponding loss in volume by using an underground antenna. This was made up of two legs of 14-gauge rubber covered wire 60 feet long, slanting away from the receiver, as in the diagram. 2. Is the variable condenser included for any purpose other than to increase selectivity?

A.: You have not stated what variable condenser. If it is one in the aerial, the selectivity is the main reason for its be-



To make this aerial non-directional the three points, A, B, and C should form an equilateral triangle each 60 feet apart.

C: Ordinary earth.

D.14g, rubber-covered wire earthed through a copper plate at A and B, wire buried one foot under ground.

ing there. It is rarely necessary.

3. Is it necessary to fit a lightning arrester to this aerial to comply with the underwriter's regulations?—No.

4. Would lead covered wire give any advantage over rubber covered?

A.: In this case it would be best.

C. H.W. (Invercargill).—I intend to construct a receiver, the circuit of which I enclose, and would like your advice.

A.: Why not wait for the screen grid version of the differential two? It will be very much better, and full constructional details will be given. The circuit you have given would be more or less satisfactory, and it could be improved upon.

Power Interference

A SHORT time back in Questions and Answers we asked anyone near the Hamilton Hospital who was experiencing power interference to write to us. We have received a letter from "N.E.L." who states that he was troubled with the interference complained of by our previous correspondent, and when he moved to a different locality reception was perfectly clear.

If our correspondent "S.W." takes up the matter with Power Board he will probably get some satisfaction. A note to the engineer or the district radio inspector would be helpful.

Tips and Jottings

Short-Circuiting Dangers

THE use of a metal "chassis" panel, or screen, in a modern set necessitates the greatest care in ensuring that only those metal parts of the components touch the panel (or screen) that are intended so to do. Unless all other parts clear the panel by a safe margin, there is always the chance of a short-circuit occurring, which might be a serious matter.

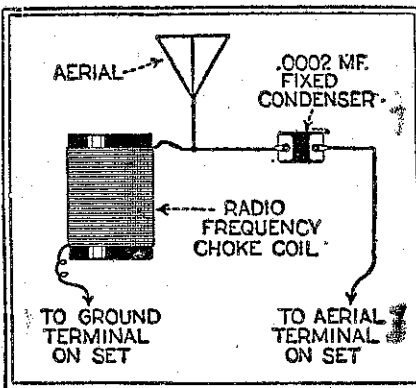
On Choosing Screws

WOOD screws with countersunk heads are generally unsuitable for use on such articles as small fixed condensers, as they are liable to break off the moulded fixing lugs or "feet." A round-headed screw will clamp the part quite firmly without damage. It is likewise not advisable to use thin brass screws in hardwood such as oak unless the screw threads are greased, or a pilot hole drilled beforehand. Lack of these precautions may result

in the screw twisting in halves—an awkward happening. A good idea is to use steel screws, which are stronger and also allow of easy manipulation in awkward corners by means of a magnetised screwdriver.

An Interference Filter

A CORRESPONDENT writes enclosing a clipping from an overseas paper. It describes a hook-up for an interference eliminator. It comprises a coil of 100 turns of No. 26 D.C.C. wire, wound on a 3in. cardboard former, and a fixed condenser of about .0002 mfd. The exact capacity of the condenser will be found by experiment. The connections are quite clearly shown in the



accompanying diagram, and it is stated that the circuit is quite a good one for reducing machine interference. It is really a type of tuned circuit and should improve selectivity.

Marking Out Panels

EBONITE panels may be quite easily spoilt by over-heavy use of the centre punch when marking out. If, however, a finely pointed bradawl is pressed firmly into the panel and twisted like a gimlet, it will make quite a sufficient mark to start a drill, and will not slip and mar the panel, while there is no danger of cracking the ebonite. Any burrs produced by drilling should be removed.

Useful Tips

DO not allow a flexible battery cord to rub against the side of an accumulator, or stray acid may affect the insulation and ruin the connection.

WHERE hum is troublesome a different earth is always well worth trying.

CHANGING your "B" battery plugs may cause an unpleasant click in your neighbour's receiver.

DO not use a baffle-board or a cabinet which has a hole smaller than the one specified for the cone you are using as this will make for muffled reproduction.

RADIO DIRECTORY

What to Buy and Where

CITIES

ACE and HAMMARLUND SETS, Johns, Ltd.

WESTINGHOUSE Rectifiers Chancery Street, Auckland.

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

BURGESS RADIO BATTERIES, All Radio Dealers.

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

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

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

MULLARD VALVES All Radio Dealers.

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

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.

The "Home and Country" Portable Concluding Notes

By "Cathode"

THE reaction condenser is of the mid-get type. While the capacity of this is stated as .00005 mfd., it is not at all critical and almost any panel mounting midget condenser can be used in this position. Another component which permits of quite wide variation is the resistance in the lead to the plate of the detector valve. Although this is stated to be 50,000 ohms, values up to as high as 100,000 ohms may be used equally successfully. It is important, though, that this resistance should be of the wire-wound type, as otherwise noise will inevitably ensue.

The speaker should be a "chassis" of comparatively small dimensions. There is room for anything within reason, but the larger the speaker the less is the space available for batteries. Some speaker units can be obtained with a pressed metal frame protecting their back, and one of these obviates any danger of the diaphragm being ruined by a battery bumping against it. A speaker having a diaphragm of seven or eight inches in diameter and fairly sturdily constructed is a very good choice.

The battery compartment, provided it has not been cut into too much by a giant speaker, will readily accommodate 100 or 120 volts of B battery, which, as previously explained, can be of the small-capacity type. There will also be room for a small 2-volt accumulator and a 9-volt C battery. The ac-

cumulator should be of the unspillable type, if the set is to be used as a portable, and preferably of a squat shape, so as to pack more securely. The set will be much easier to carry if the weight of the batteries is distributed fairly evenly. Once a suitable distribution of weight has been found, the batteries may be wedged into place with small wooden wedges or folded newspapers.

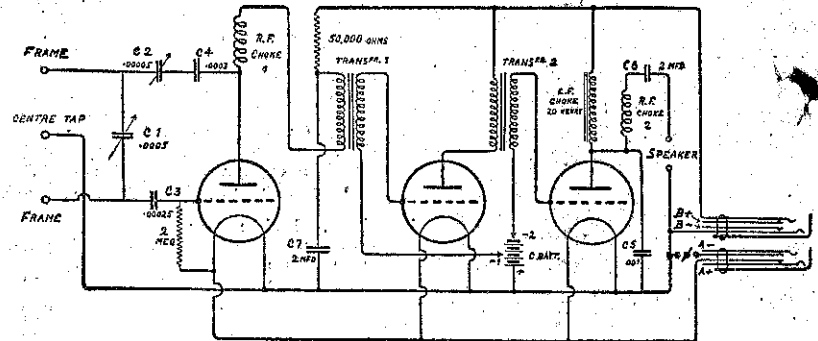
Valves will necessarily be of the 2-volt type. For the detector an H.F. or R.C. valve of 20,000 to 50,000 ohms impedance will be most successful. The first audio valve should be of the L.F. type, having an impedance of 8000 to 15,000 ohms. For the last socket, of course, a small power valve of 4000 to 7000 ohms impedance will be used.

Possible Troubles.

IT has already been mentioned that it is very unlikely indeed that any trouble will be had with audio instability, so that the reader will not be unduly alarmed if we mention one or two remedies to provide for the remote possibility of anything in that nature occurring. The first thing to try is reversing the speaker leads. If this does not improve matters, a $\frac{1}{2}$ meg. grid leak across the secondary terminals of the second transformer will usually effect a cure. As a last resource, reverse the connections to the secondary of one of the transformers.

It is unlikely that any regular reader of the "Record" is unfamiliar with the process of tuning a simple "Det.-L.F." receiver. Do not forget, however, that any receiver operating from a frame aerial is very sensitive as far as direction is concerned. A difference of a few degrees in direction will often make a surprising difference in the strength of signals. One is particularly apt to overlook the necessity of locating the frame edgewise to the oncoming waves when the receiver is used indoors, the more so since the direc-

tioned under these circumstances. It is worth noting, therefore, that an earth may be attached to the receiver, a suitable point to connect this being the centre tapping of the frame aerial. Similarly, signal strength from distant stations may be much increased by coupling an outdoor aerial to the frame through the medium of an extra three or four turns adjacent to the existing winding. The directional properties of the frame will then practically disappear.



tion of the waves is often distorted in such circumstances and pointing the frame toward the broadcast station does not always result in the loudest signals. A few seconds spent in experimenting will always enable the operator to obtain the best signal strength.

This receiver is quite worthy of installation indoors as a permanent receiver, particularly during the winter months. Thus any little effort spent in making a nice job of the cabinet is well repaid, the neatness and convenience of the receiver being very much appre-

The description of the "B" eliminator and charging unit for this receiver will follow this article very shortly. Although a full description will be given of the construction of the power transformer and chokes employed, it will be possible to obtain these ready-wound locally. Thus, those constructors who doubt their ability to make a success of a transformer need not hesitate to construct the receiver for fear the remaining unit will be beyond their capabilities; we can promise them it will not.

Paderewski In America

Empire Broadcasting

Refuses to Broadcast

IGNACE PADEREWSKI, the world-famed pianist, recently visited America on a concert tour. When interviewed on his arrival in New York he stated that he would not permit any of his recitals to be broadcast.

He explained quite frankly that he was opposed to such broadcasting, so far as his own playing was concerned, because his one experience before the microphone in England had resulted in affecting unfavourably the attendance at his public concerts.

EXTENSIVE plans for linking up by wireless not only Great Britain with the Dominions and colonies, but the Dominions with each other were approved recently by the Dominion Premiers at the Imperial Conference. It is hoped this will be accomplished before the end of 1931 if technical difficulties can be overcome.

They include the relaying of broadcasts, for instance, from Australia to South Africa, and from Canada to the West Indies. Immediate experiments are to be made, and later a committee of technical experts will be called to discuss the possibilities and the ways and means.

SILVER-MARSHALL

Having accepted the exclusive New Zealand representation for the component parts of this well-known manufacturer, we intend to appoint "Silver Marshall Service Stations" throughout New Zealand.

Applications are invited from radio dealers for exclusive appointment as a "Silver Marshall Service Station" in their district.

The 1931 S-M production includes:—

Super-Het. Screen-Grid A.C. Chassis,
Super-Het. Short-Wave Converters,
A.C. Short-Wave Sets,
Motor Car Sets, etc.

N.Z. Distributors:

THOS. BALLINGER & CO., LTD.

58-62 VICTORIA ST., WELLINGTON.

"Where the Quality Goods are Sold."

PORTABLE RADIO SETS

for

Holidays and Camping

5-Valve Sets, complete £16/12/6

Transportable Models £21/5/-

Unspillable Accumulators, B Batteries, etc.

A. E. STRANGE

Telephone 36-774

404 WORCESTER ST., CHRISTCHURCH.

King's Speech Recorded

Remarkable Feat.

SEVEN hours after making his recent broadcast speech at the opening of the Round Table Conference on India, the King heard a gramophone record of it at Buckingham Palace. Later the same record was broadcast as a surprise item by the British Broadcasting Corporation.

These two events were made possible as the result of a remarkable scientific feat at the Gramophone Company's factory at Hayes, Middlesex. In a small courtyard at the House of Lords the company placed its mobile recording machinery, from which cables led to six microphones in the Royal Gallery. A man stood in the van of a recording instrument on which a wax disc was revolving. At the moment that he heard the King's voice through a loud speaker in the van the man placed the recording needle on the wax.

When the speech was finished the disc was wrapped in blankets and hurried to the factory at Hayes. Here a record was made from it in 3½ hours. Hitherto the making of a record from the wax has taken 60 hours.

London's Police Patrol

Latest Radio Equipment

SCOTLAND Yard has refitted the Flying Squad with such up-to-date wireless transmitters and receivers that the officers in the cars can talk to "the Yard" even when travelling at 80 miles an hour.

The short-wave system was abandoned because of "fading" when the cars drove past metal-framework buildings, and when medium-wave, low-power transmitters were fitted it was found that telephony was possible instead of sending messages in Morse code.

The low power employed is to avoid eavesdropping. This cannot be avoided entirely, but only listeners within a small radius can pick up messages from a Flying Squad car. At the Yard special receivers have been fitted in silence cabinets so that the very weak signals from the moving cars can be magnified and work a loudspeaker.

"Radio Record and Electric Home Journal"?

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

Effective Insulation

THE question whether additional insulators on a receiving aerial will improve matters depends entirely upon whether the insulation is already as near as may be perfect. If it is, then additional insulators will have no effect. If it is not, then additional insulators will certainly improve the efficiency of the aerial. Clearly any signal energy, induced in the aerial by the incoming electric waves, which runs to earth owing to faulty insulation, cannot be going into the receiver, and to that extent the efficiency of the aerial is below normal.

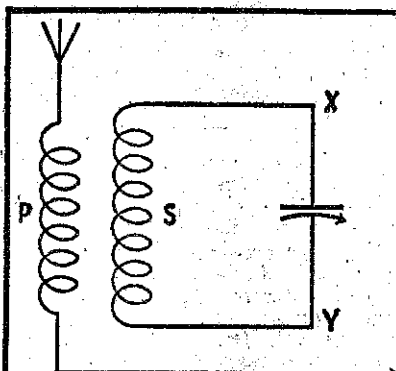


FIG.1. To Aerial Terminal of Set

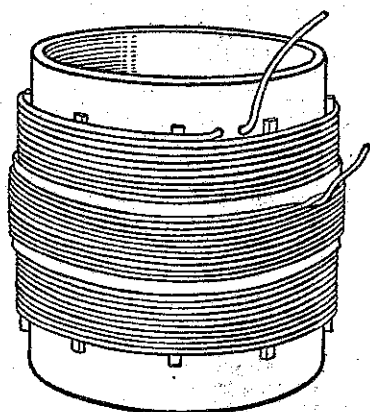


FIG.2.

Plan of the wavetrap and its coil described by A.A.H.

Use Our Booking Offices in Advance

S-O-S

TRAVEL IN COMFORT BY
CAR

WELLINGTON - PALMERSTON
NEW PLYMOUTH

An Ejector for Any Receiving Circuit

A Wavetrap of Unusual Qualities

By "A.A.H."

I HAVE studied and experimented on various ejecting circuits and eventually devised one that was satisfactory in many ways and working efficiently. It will completely dissolve broadcasting signals at a surprisingly short distance from their transmitter, smooth out rough signals, reduce static considerably, tighten up tuning to almost a point, and also form an adjunct to a highly efficient crystal receiving set. It is best to be constructed as a wave-trap alone and hooked up permanently to the receiver, for it does not diminish the volume and often improves it. Station 1YA "faded out" within a quarter of a mile away and when signals were strongest, and Australian stations brought in.

On a good cardboard former, which may be from 2½ to 2¾ inches in diameter, and about 3 inches long, fix with glue match sticks minus their heads from ¼ to 7-8 inches apart and wind on closely and tightly about 40 feet of No. 22 D.C.C. copper wire, leaving some six inches slack at each end, after anchoring, for connections to aerial and receiver respectively (see Figure 2). This is the primary (P) coil.

Over the centre of this coil fix a band of tissue paper, one layer, about an inch broad, and over this, wind on ten turns of No. 18 D.C.C. copper wire as before, and same direction, anchoring each end, leaving about 6 inches of slack. These turns can be

kept in place by threading over and above at two or three places. This is the secondary (S) coil, each end being connected to the respective terminals of the condenser, which should be fastened on to the formico paneling, the coils being placed in an oblique position to it when connected. Efficient soldering must be adopted wherever possible, even to the set terminal A, if the ejector has to be permanent.

In tuning, use both dials until signals are at the loudest. The interfering signal can be then trapped out; or again, trap out the interfering signals and tune in those desired with the dial on the set. A little practice may be necessary as this apparatus, if well made, is somewhat critical in using. By running X through a crystal detector, thence through phones and on to connection Y, or, better still, connecting X and Y to a double point switch and wiring them as just said, reception can be had by either valve or crystal receiver at will. In this case the arrow point goes to earth. The trap will also smooth out rough signals, reduce static, and it also has improved both tonal and tuning qualities often enough. It does not diminish volume and the writer knows quite well it will solve many of the complaints from listeners that appear from time to time. This circuit does not assist short-wave reception.

For crystal work connect arrow point to earth.

JUST ARRIVED!

EX "PORT HUON."

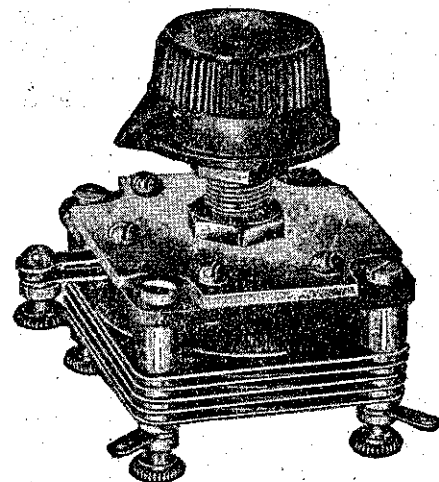
All the Latest English
Components

Bulgin 600 ohm. Decoupling Resistances. 2/6 each
Edison Bell Coils, double tapped coil X type, 5/- each
Ormond Vernier Dial (the new black finished type), 6/6 each

Jackson Neutralising Condensers (for Browning-Drakes). 4/6 each

Lotus Differential Condensers, .00013, .0002 and .00027. 8/- to 9/6 each

The New Blue Spot 11in. Universal cone and chassis. 18/6 each



Lotus Differential Condenser.

Hundreds of other British Lines of Latest Designs.

F. J. W. FEAR & CO.

63 WILLIS STREET

WELLINGTON

VALUE! VALUE!

Now we offer the "COURIER" All-Electric 3-Valve (including rectifier) Receiver, with built-in Wave Trap and Pick-up Jacks.

COMPLETE WITH BABY GRAND SPEAKER
ONLY £14 COMPLETE

G. G. MACQUARRIE LTD.

120 WILLIS STREET, WELLINGTON

FEATURE PEEPS

... at ...

FUTURE PROGRAMMES

SUNDAY

From Auckland

THE evening service will be relayed from St. David's Church. This will be followed by a relay from the Auckland Town Hall of the concert given by the Municipal Band under the conductorship of Mr. Hal McLennan.

2YA Notes

THE service will be relayed from the Vivian Street Baptist Church. The preacher will be the Rev. E. N. Goring, the organist Mr. Charles Collins, and the choirmaster Mr. J. R. Samson. Following the service a studio concert will be given by the Miramar Silver Band under Mr. R. A. Sutherland and assisting artists.

From Christchurch

THE service in Moorhouse Avenue Church of Christ will be broadcast. Pastor J. Watt will be the preacher. A relay from Dunedin of the St. Kilda Band concert will follow.

From 4YA

THIS station will relay the service from St. Paul's Cathedral. The preacher will be Canon Neville, and the organist Mr. Heywood, F.R.C.O. Afterwards a concert given in the St. Kilda band rotunda by the St. Kilda Band will be broadcast.

MONDAY

From 2YA

THE concert programme should prove of great interest to all music-lovers.

The outstanding feature will be a lecture recital by Mrs. Daisy Basham. This talented and interesting recitalist has chosen for her subject that well-known composer "Grieg." Mrs. Basham will be assisted by Mr. Eric Harrison (baritone), who will sing three numbers by Grieg: "Ragna," "The Old Mother," and "I Love Thee," and Miss Rait, pianiste, will present two compositions by the same composer: "Bridal Procession March" and "Papillons." Mr. Clement May, already well known to 2YA listeners, will be heard in varied and interesting numbers, including "The Ballad of Cape St. Vincent" (by Massfield), "What a Fool You Would Be" (by Spurr), and "Characters from Dickens."

The Orchestra, under Signor A. P. Truda, will render a Grieg programme, including the overture "Sigurd Jorsalfar," "Three Lyric Pieces," and the "Peer Gynt Suite No. 2," also a selection, "Martha" (by Flofow), and a concert waltz, "Dolores" (by Waldteufel). During

the playing of the "Peer Gynt Suite" "Solveig's Song" will be sung by Signora Truda.

From Christchurch

THE popular New Brighton Municipal Band will present a programme this evening. Both the band items and the vocal numbers will be well varied.

Dunedin Notes

MR. J. F. MONTAGUE, elocutionist, will give a recital at 4YA, his items ranging from humorous to dramatic. Dagg's Dance Band, a very popular combination, will provide a programme of old-time dances. A vocal programme has also been arranged. Miss Ida Lungley is acting as studio pianiste at 4YA during the

instrumental items will be given by the talented Moore Sisters. Two short one-act plays will be acted by Mr. and Mrs. J. W. Bailey. From 10 o'clock instrumental dance music will continue.

2YA Notes

AT 7.40 p.m. a representative of the Agricultural Department will deliver a lecturette "For the Man on the Land."

The evening concert session will be of a popular type. The Etude Quartet will be heard in a number of solos, duets, and quartets, from well known musical comedies such as "The Cabaret Girl," "The Quaker Girl," and "The Girl Friend." Solos with chorus will be a feature of their entertainment.



BARRY INGALL AND HIS HAWAIIAN ORCHESTRA.

Whose excellent selections are very popular with listeners to 1YA.
—S. P. Andrew, photo.

absence of Mrs. Drake on holiday leave.

TUESDAY

From Auckland

AT 3.15 p.m. Mrs. Les Crane will continue her talks on "Beauty of Mind and Body in relation to Diet," and at 7.40 p.m. Mr. Rod Talbot will give a further talk on "Motoring."

A new artist, Mrs. Winifred E. Osborne, soprano, will make her first appearance at 1YA this evening. Among her numbers will be "Elegie" by Massenet. Mr. Cyril Towsey will play Beethoven's "Moonlight Sonata," and

Mr. J. Blackwood, piano accordion soloist, will present a group of items. A feature of the programme will be a comedy sketch by Miss Zena Jupp and Mr. Errol Muir, entitled "Spring Onions." A varied instrumental programme will be given by the Salon Orchestra, under Mr. M. T. Dixon.

From Christchurch

THE tour of the Australian Cricket Team through England this year has been taken by the Kaikora Band as the subject for a musical fantasia, into which will be woven a description of the tour and matches played, with folk songs typical of the different countries

THE WEEK

Clement May Recital
2YA, Monday.

Musical Comedy Selections
2YA, Tuesday.

Musical Fantasia
4YA, Tuesday.

Vaudeville Entertainment
3YA, Wednesday.

Wellington Artillery Band
2YA, Thursday.

"Original Jubilee Singers"
2YA, Friday.

visited. The lecturer will be Mr. George Wycherley, president of the Otago Cricket Association, and the singer will be Mr. William Ruffell. Introducing the fantasia will be a humorous discourse on cricket as recorded by Pat Hanna. These novelty fantasias as broadcast by 4YA have been very popular.

WEDNESDAY

From 1YA

THE instrumental portion of the programme will be given by the Congress Hall Band under the direction of Mr. T. Paice. Several very fine numbers from an extensive repertoire will be presented. Miss Rose Carte, a very fine elocutioniste from Wellington, is performing.

A new mixed quartet, consisting of members of the 1YA Broadcasting Choir, will make its first appearance on this programme. All the singers have been heard over the air at various times, and they have proved immensely popular. The quartet consists of Miss Chrissie Foster (soprano), Miss Cathleen Mulqueen (contralto), Mr. Syd. Pauley (tenor) and Mr. E. M. Newling (baritone).

From Christchurch

A DIALOGUE by Mr. L. W. McCaskill and Mr. R. B. Tennent, in which Farmer Brown's idea that he should sell his farm is discussed, will be broadcast from both 3YA and 4YA.

Mr. J. F. Montague will be heard from 3YA in a dramatic recital, a sketch and humorous recitations. On the vocal side of the musical programme, the Salon Quartet will provide two concerted numbers—"Laughing Chorus" and the old Irish favourite: "The Last Rose of Summer." Among the solos will be: "My Old Shako," "Thank God for a Garden," "Irish Folk Song," "The Gingham Gown," "Mountain Lov-

ers," "Stone Cracker John," "Top o' the Morning" and "The Trumpeter."

Mr. R. Ohlsen will provide cornet solos and one of Mr. H. Glaysher's harp solos will be the ever-popular "Londonderry Air."

At 4YA

THE home science talk, to be given by the Home Science Extension Department of Otago University this afternoon, will be on "Filling the New Year Cookie Jar."

A varied concert programme of vocal, instrumental, and elocutionary numbers has been arranged.

THURSDAY

From 1YA

THE home science afternoon talk from 1YA, 2YA and 3YA will be on "Meals That Keep the Family Fit."

Mr. R. R. Thompson, a leading Auckland baritone, will make his first radio appearance this evening at 1YA. He has included some very fine numbers in his short recital. Mr. Merv. Bree, a novelty pianist, who has broadcast several times in Canada and elsewhere will be heard for the first time on the air in New Zealand.

Humorous songs will be given by Mr. W. H. Pearce, and the Orchestral Octet, is providing some very enjoyable items, including a "Pirates of Penzance" selection, and "Blue Danube Waltz."

Wellington Notes

THE speaker for the afternoon talk will be Miss I. F. Meadows.

The studio concert will be given by the Wellington Artillery Band, under Captain T. Herd. During the evening the band will render a number of interesting selections, including the military fantasia, "La Militaire," a descriptive piece, "A Hunting Trip," and a waltz, "Venus on Earth." Sergeant W. H. Bowman will be heard in a cornet solo with band accompaniment, "The Merry-go-Round."

The vocalists for the evening will be the Lyric Quartet, and Miss Gwladys Edwardes. A feature of the evening will be the last half-hour of the programme, which will consist of a community sing led by the Lyric Quartet. All listeners are invited to join in.



MRS. B. JELLARD.

an Auckland contralto. She will present three selected solos from 1YA on January 15.
—S. P. Andrew, photo.

From Christchurch

A TALK on "New Gladioli" will be broadcast by Mr. E. E. Wiltshire.

A classical operatic programme of a popular nature, to be followed by a session of dance music will be broadcast this evening. The following quartets may be mentioned: "Snow," "Londontown" and "Shepherdess and Beau Brocade." There will be duets and solos, among the latter being: "The Dawn Has a Song," "A Song of India," "The Wanderer," "Creations Hymn," "Lullaby," and "Ah, Weep no More." A very fine instrumental programme will be provided by a trio, with 'cello and clarinet solos.

FRIDAY

Auckland Notes

BARRY Ingall's Hawaiian Quartet will increase their popularity with 1YA listeners this evening. The Asquiths will once again be heard in a Twenty-minute Drawing Room Entertainment.

2YA Features

A VARIETY programme of very high standard has been arranged for



THE ASQUITHS.

whose "Drawing-room Entertainments" are a very popular feature with Auckland listeners.

—Andrew, photo

this evening. The outstanding feature will be the presentation of elocutionary numbers by Mr. J. F. Montague, of Auckland. Mr. Harry Mitchell (baritone) recently arrived from England, will be heard in "Glorious Devon," "Drake Goes West," and "Passing By."

From Christchurch

THE evening's programme will be bright and varied.

4YA Notes

VOCAL refrains will be introduced by Miss Rita Holmes into a number of the contributions by an instrumental quintet.

SATURDAY

Auckland Features

INSTRUMENTAL items will be given by the 1YA Orchestral Octet, under the direction of Mr. Harold Baxter.

Ernest and Wendy Luks will be heard in "Merry Moments at the Piano," and a new artist, Mr. C. C.

Purdy, an excellent siffleur, will give several numbers. This is a type of item which is seldom heard.

Dance music will continue until 11 p.m.

2YA Notes

THE Wellington Station will be on the air at noon to broadcast the results of the Wellington Trotting Club's Summer Meeting.

A programme of Nigger Minstrel Songs will be presented in the evening. This will be built up on a lecture recital by Mrs. Daisy Basham, entitled "Original Jubilee Singers." The Melodie Four, always good to listen to, in addition to singing the numbers illustrating the lecture recital, will provide the rest of the vocal programme.

Mrs. Mildred Kenny with Mr. J. Jackson will be heard in a group of banjo duets, "Beautiful Star," "Nancy Till," "Nellie Bly," and "So Early in the Morning." Mr. M. T. Dixon, conducting the Salon Orchestra, will supply the incidental music.

From Christchurch

POPULAR songs at the piano by the Rose and Thistle Duo, light music



MARTHA WILLIAMSON, contralto, who will next appear from 1YA on January 16.
—S. P. Andrew, photo.

tet, with vocal refrains by Miss Moody, will be included in this evening's vaudeville programme.

4YA Notes

THE Kenz Orpheans will present an entertainment entitled, "Modern Transcriptions of the Classics."

The R101 Inquiry

SIX microphones and four loudspeakers were used at the official inquiry in London into the R101 disaster. The installation included an ingenious system of control whereby the various microphone circuits could be cross-connected so that questions and answers from different parts of the hall could be heard clearly by all concerned.

A Radio Duel

PROBABLY the first duel in radio history was one fought recently between the director of a Paris broadcasting station and an artist, whose caricature of the former in a French radio journal gave offence. Four bullets were exchanged without "reception" on either side.

SPECIAL FOR PORTABLE SETS

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

BRIGHT STAR BATTERIES

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

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

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

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

L. B. SCOTT LTD

Box 395
CHRISTCHURCH

Full Programmes for Next

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

Sunday, January 11

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, JANUARY 11.

- 3.0 : Selected gramophone recordings.
 3.30 : Literary selection and further gramophone recordings.
 6.0 : Children's song service, conducted by "Uncle Bert."
 6.55 : Relay of divine service from St. David's Church. Preacher to be arranged. Organist, Mr. E. S. Craston.
 8.30 : (approx.) Relay of Municipal Band Concert, under the conductorship of Mr. Geo. Buckley, from Albert Park.
 9.30 : (approx.) God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JANUARY 11.

- 3.0 : Selected gramophone records.
 6.0 : Children's song service conducted by Rev. J. Hubbard, assisted by the Children's Choir from the Cambridge Terrace Congregational Church.
 7.0 : Relay of evening service from the Vivian Street Baptist Church. Preacher, Rev. E. N. Goring; Organist, Mr. Chas. Collins; Choir-master, Mr. J. R. Samson.
 8.20 : (approx.) Studio concert by the Miramar Silver Band (Conductor, Mr. R. A. Sutherland) and 2YA artists:
 Marches—Band, (a) "Star of the Desert" (Thomas), (b) "Ever Ready" (White).
 Soprano—Mrs. R. D. Potts, (a) "O Fair and Sweet and Holy" (Rubinstein), (b) "The Mission of a Rose" (Cowen).
 Negro Spirituals—Fisk Jubilee Singers, (a) "Ezekiel Saw the Wheel" (traditional), (b) "Little David" (traditional).
 Baritone—Mr. S. Evelyn Rodger, (a) "The Star" (Rodgers), (b) "God's Earth and Thee" (Nicholls).
 Selection—Band, "The Daughter of the Regiment" (Donizetti).
 Weather report and station notices.
 Tenor—Mr. E. W. Robbins, (a) "O Lovely Night" (Landon Ronald), (b) "For You Alone" (Geehl).
 Fantasia—Band, "Songs of Gallant Wales" (Raymond).
 Instrumental—Poltronieri String Quartet, (a) "Canzonetta" (Mendelssohn), (b) "Serenade" (Haydn).
 Baritone—Mr. S. Evelyn Rodger, "The Message" (Blumenthal).
 Waltz—Band, "Crown of Love" (Rimmer).
 Tenor—Mr. E. W. Robbins: Recit., "Comfort Ye" (Handel); Aria, "Every Valley" (from "The Messiah"—Handel).
 Hymn—Band, "191" (R. A. Sutherland).
 March—Band, "Invicta" (Greenwood).
 God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JANUARY 11.

- 3.0 : Gramophone recital.
 5.30 : Children's Song Service by Children of Church of Christ Sunday School.
 6.15 : Chimes from studio.
 6.30 : Musical recordings from studio.
 7.0 : Relay of evening service from Church of Christ, Moorhouse Avenue. Preacher, Pastor J. Watt; Organist, Miss B. Readhead; Choir Conductor, Mr. H. Ames.
 8.15 (approx.) : Relay of programme from 4YA, Dunedin.
 9.30 (approx.) : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JANUARY 11.

- 3.0 : Selected recordings.
 5.30 : Children's Song Service conducted by "Big Brother Bill."
 6.15 : Instrumental recordings.
 6.30 : Relay of evening service from St. Paul's Cathedral, Dunedin. Preacher, Canon Neville; Organist, Mr. Heywood, F.R.C.O.
 7.45 : Selected gramophone recordings.
 8.15 : Relay from St. Kilda Band Rotunda of concert by the St. Kilda Band.
 9.30 : God save the King.

5YA, NEW PLYMOUTH (1230 KILOCYCLES)—SUNDAY, JANUARY 11.

- 6.0 : Children's service.
 8.15 : Studio concert.

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, JANUARY 12.

- 3.0 : Chimes. Selected gramophone recordings.
 3.30 and 4.30 : Sporting results to hand.
 5.0 : Children's session, conducted by Uncle Jeff.
 6.0 : Dinner music session.
 Royal Opera Orchestra, "Sylvia Ballet—Pizzicato and Procession of Bacchus" (Delibes).
 New Light Symphony Orchestra, "Scene de Ballet Marionettes."
 Royal Opera Orchestra, "The Sleeping Beauty" Panorama.
 6.15 : National Symphony Orchestra, "Irish Rhapsody" (Herbert).
 Trio—Fritz and Hugo Kreisler, Michael Rauchs, "Sanctissime."
 6.30 : National Symphony Orchestra, "Orpheus in Hades" Overture.
 Royal Opera Orchestra, "Shepherd Fennel's Dance" (Balfour).
 6.45 : National Military Band, "Lohengrin Prelude" (Wagner).
 New Light Symphony Orchestra, "Persiflage" (Francis).
 Trio—Fritz and Hugo Kreisler, Michael Rauchs, "Arlesienne Intermezzo" (Bizet).
 La Scala Orchestra, "The Secret of Susanna" Overture (Wolf).
 7.0 : News session, market reports and sports results.
 8.0 : Chimes. Overture—2YA Orchestra (Conductor, Signor A. P. Truda), "Sigurd Jorsalfar" (Grieg).
 8.9 : Soprano—Mrs. Isabel Hollands, (a) "April Morn" (Batten); (b) "Yesterday and To-day" (Spross).
 8.15 : Elocution—Mr. Clement May, "The Ballad of Cape St. Vincent."
 8.20 : Suite—Orchestra, "Three Lyric Pieces, Op. 12" (Grieg).
 8.28 : Lecture-recital—"Grieg," by Mrs. Daisy Basham, assisted by Mr. Eric Harrison and Miss Edith Rait.
 8.43 : Suite—Orchestra, "Peer Gynt Suite, Part 2" (Grieg). During the presentation of this suite "Solweig's Song" will be sung by Signora Truda.
 8.51 : Contralto—Miss Hilda Chudley, "Nightfall at Sea" (Phillips).
 8.55 : Cello—Lauri Kennedy, "Old Scotch Melody" (arrgd. Kennedy).
 8.59 : Weather report and station notices.
 9.1 : Soprano—Mrs. Isabel Hollands, (a) "If My Songs Were Only Winged" (Hahn); (b) "Only a Rose" (Friml).
 9.9 : Song story—Mr. Clement May, "What a Fool You Would Be" (Spurr); recital, "Characters from Dickens" (Dickens).
 9.19 : Concert waltz—Orchestra, "Dolores" (Waldteufel).
 9.27 : Continuation of the lecture-recital on "Grieg" by Mrs. Daisy Basham, with Mr. Eric Harrison and Miss Edith Rait.
 9.42 : Selection—Band of H.M. Grenadier Guards, "Fantasia on 17th Century Music" (arrgd. Miller).
 9.50 : Contralto—Miss Hilda Chudley, "Forever and a Day" (Mack).
 9.54 : Selection—Orchestra, "Martha" (Flotow).
 Including a soprano solo by Signora Truda, "The Last Rose of Summer."
 10.2 : Dance programme.
 Foxtrots—Connecticut Yankees, "Where Are You, Dream Girl?"
 Ted Weems' Orchestra, "Here We Are" (Warren).
 Connecticut Yankee, "Pretending" (Porter).
 Ted Weems' Orchestra, "Piccolo Pete" (Baxter).
 10.12 : Vocal duet—Gladys Rice and Franklyn Baur, "You're the Cream in My Coffee" (de Sylva).
 Foxtrot—Gus Arnheim's Orchestra, "Now I'm in Love" (Shapiro).
 10.18 : Foxtrots—Jack Hylton's Orchestra, "Ever So Goosey" (Butler).
 Ted Weems' Orchestra, "Am I a Passing Fancy?" (Silver).
 Waltz—Connecticut Yankees, "Underneath the Russian Moon."
 Hilo Hawaiian Orchestra, "Sparkling Waters of Waikiki."
 10.30 : Tenor—Morton Downey, "The World is Yours and Mine" (Green).
 Foxtrots—Ted Weems' Orchestra, "What a Day!" (Woods).
 Connecticut Yankees, "The One That I Love Loves Me."
 Jack Hylton's Orchestra, "The Toymaker's Dream" (Golden).
 10.43 : Vocal duet—Billy Murray and Walter Scanlon, "Oh, Baby, What a Night" (Brown).
 Foxtrots—Rudy Vallee and Connecticut Yankees, "I'll be Reminded of You" (Heyman-Smith).
 Gus Arnheim's Orchestra, "This is Heaven" (Yellen).
 All Star Orchestra, "Waiting at the End of the Road."
 Gus Arnheim's Orchestra, "One Sweet Kiss" (Jolson).
 Waltz—Gus Arnheim's Orchestra, "Sleepy Valley" (Sterling).
 11.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, JANUARY 12.

- 3.0 : Gramophone recital.
 4.25 : Sports results.
 5.0 : Children's Hour, conducted by Cousin Margot.
 6.0 : Dinner music session.
 Milan Symphony Orchestra, "Semiramide Overture" (Rossini).
 Symphony Orchestra, "Tales From the Vienna Woods" (Strauss).
 6.15 : Herman Finck's Orchestra, "Old and New" (Potpourri of Popular Melodies) (arr. Finck).

Monday, January 12

1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, JANUARY 12.

SILENT DAY.

Week-all Stations-to Jan. 18

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

- 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" (Mascagni).
6.45: Bournemouth Municipal Orchestra, "Echoes of the Valley" (Gennin).
Columbia Symphony Orchestra, "Badinage" (Herbert).
Royal Philharmonic Orchestra, "Blue Danube" (Strauss).
7.0: News session.
7.30: Talk—Mr. N. M. Bell, M.A., B.D., "Esperanto."
8.0: Chimes. Band programme by New Brighton Municipal Band (Conductor Mr. J. A. Nuttall) and assisted by 3YA artists. March—Band, "Knight of the Road" (Greenwood); waltz, "Lazy Louisiana Moon" (Donaldson).
8.10: Tenor—Mr. Edgar R. Pitman, (a) "The Garden of Afterwards" (Leaver), (b) "Marguerite" (White), (c) "A Chip of the Old Block" (Squire).
8.20: Organ—Leslie James, "Everybody's Melodies"; F. Rowland-Tims, (a) "At Dawning" (Cadman), (b) "Shepherd's Lullaby" (Hewitt).
8.33: Soprano—Miss Betty Sutton, (a) "Invitation" (Barry), (b) June Music" (Trent), (c) "Days of Joy Are Here" (Hemery), (d) "The Little Old Garden" (Hewitt).
8.43: Foxtrots—Band, (a) "Melancholy" (Campbell), (b) "Saskatchewan."
8.50: Recitations—Mr. H. L. Shaw, (a) "In School Days" (Whittier), (b) "Our Folks" (Ethel Lynn).
9.0: Weather forecast and station notices.
9.2: Selection—London Theatre Orchestra, "Lilac Time."
Cello—Pablo Casals, "Melody in E Flat" (Tschalkowsky).

- 9.12: Contralto—Miss Edna Johnson, (a) "O Flower of All The World" Woodforde-Tinden), (b) "Sloe Eyes" (Rubens), (c) "When You Come to the End of the Day" (Westphal).
9.22: Selection—Band, "Friendship" (Rippen).
Cornet—Mr. J. Nuttall, "Cornet King" (Greenwood).
One-step—Band, "Just a Vagabond Lover" (Vallee).
9.35: Baritone—Mr. Sydney W. Armstrong (a) "The Harp That Once Thro' Tara's Halls" (trdtl. Irish), (b) "Friend O' Mine" (Sanderson), (c) "There's a Song Down Every Roadway" (Haydn-Wood).
9.45: Foxtrot—Band, "Ricketty Rackety Shack" (Tobias).
Waltz—Band, "Ninette" (Manch).
9.55: Humorous Novelties—Frank Crumit, (a) "No News," (b) "The Three Trees" (McNaughton).
10.1: March—Band, "Our Director" (Biglow).
10.7: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, JANUARY 12.

- 3.0: Chimes. Selected recordings.
5.0: Children's Hour, conducted by Big Brother Bill.
6.0: Dinner music session.
Metropolitan Symphony Orchestra, "Lilac Time" selection.
Russian Imperial Trio, "Because" (D'Hardelot).
Bidgood's Dance Band, "Popular Musical Comedy Waltz Medley."
6.15: Salon Orchestra, "Italian Nights" (Roberts).
Symphony Orchestra, "Morris Dance" (from "Henry VIII" Dances).
Orchestra with organ—"Demande Et Response."
Symphony Orchestra, "Shepherd's Dance" (from "Henry VIII Dances") (German).
Orchestra with organ—"Portia" intermezzo from "Merchant of Venice" (Rosse).
6.30: Harry Jacobs and His Palais Orchestra, "The Earl and the Girl Selection" (Caryll).
Salon Orchestra, "The Enchanted Lake" (Tschalkowsky).
Russian Imperial Trio, "Liebesleid" (Kreisler).
Stoll Theatre Orchestra, "The Grasshoppers' Dance" (Bucalossi).
6.45: Band of H.M. Life Guards, "Ruy Blas Overture" (Mendelssohn).
Stoll Theatre Orchestra, "The Phantom Brigade" (Myddleton).
Bidgood's Dance Band, "Popular Classical Waltz Medley" (arrgt.).
7.0: News session.
8.0: Chimes. Overture—Menorah Symphony Orchestra, "Shulamith."
8.9: Soprano—Miss Freda Elmes, (a) "Butterfly Wings" (Phillips), (b) "The Last Rose of Summer" (Moore).
8.15: Circular Waltz—Dagg's Band, "Maori Melodies" (arr. Dagg).
8.25: Baritone—Mr. Bert Rawlinson, "Maggie Lauder" (Roddie).
8.28: Guitar—Linn Milford's Hawaiian Players" (Kilima) trdtl.).
8.31: Recitals—Mr. J. F. Montague, (a) "Gallipoli—8th August" (Masefield), (b) "Men, Women, and Things" (MSS).
8.41: Lancers and Waltz—Dagg's Band, "Old Time Melodies" (arr. Dagg).
8.56: Contralto—Miss Mary Teviotdale, "The Lovely Rose" (Franz).
9.0: Weather report.
9.2: Selection—Circolo Mandolinistico, Preludes to Acts "La Traviata."
9.10: Soprano—Miss Freda Elmes, "Arise, O Sun" (Day).
9.13: Irish Quadrilles and Mazurka, "Dagg's Band, "Good Old Times."
9.26: Recitals—Mr. J. F. Montague, (a) "Christmas at Sea" (Stevenson), (b) "Hoffenstein's Toast," (c) "Imph-M."
9.37: Waltzes—Dagg's Band, (a) "Destiny" (Baynes), (b) "Popular Old Favourites" (arr. Dagg).
9.45: Baritone—Mr. Bert Rawlinson, (a) "There Was a Lad" (Mudie), (b) "Meeting of the Waters" (Moore).
9.51: Contralto—Miss Mary Teviotdale, (a) "Marie" (Jensen), (b) "Songs My Mother Taught Me" (Dvorak).
9.59: Medley—Dagg's Band, (a) "Old Favourites," (b) "Common Schottische"; (c) "Highland Schottische"; (d) "Waltz."
10.5: God save the King.

2XB, NEW PLYMOUTH (1230 KILOCYCLES)—MONDAY, JANUARY 12.

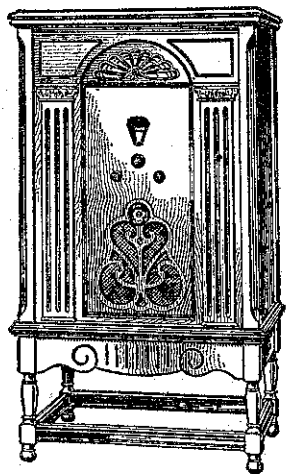
- 6.30: Children's session.
7.30: News, markets, and information.
8.0: Studio concert.

Tuesday, January 13

1YA, AUCKLAND (900 KILOCYCLES)—TUESDAY, JANUARY 13.

- 3.0: Selected gramophone recordings.
3.15: Talk—Mrs. Les. Crane, "Beauty of Mind and Body in Relation to Diet."
3.30: Further selected recordings.

Start the New Year Right



Have your Stewart-Warner Radio installed immediately. Nineteen thirty-one will be a Stewart-Warner Radio year, and you'll want to have the most modern and efficient radio or radio and gramophone combination as the entertaining equipment of your home.

Start economising right now, and get the best first time you buy; it costs you less in the end. By reason of its most modern design and very excellence, Stewart-Warner Radio has set a new 1931 standard of reception with its remarkable results during 1930.

After all, you judge a radio by PERFORMANCE. That's all you'll be asked to do now. Simply install it and let it work.

Watch the amazement on every face as those far away stations boom in like locals with clear, resonant TONE that simulates perfectly the artist's own voice! Just hear it!

Your nearest dealer will gladly demonstrate without obligation.

STEWART WARNER RADIO

Screen-Grid Circuit



SOLD THROUGH A HUNDRED AUTHORISED RADIO DEALERS

Radio
Division

Hopie Gibbons Ltd

Auckland
Christchurch
Wellington

- 5.0 : Children's session, conducted by "Uncle Dave."
 6.0 : Dinner music session.
 New Mayfair Orchestra, "Sally" Selection (Kern).
 Organ—Sandy Macpherson, "L'Heure Bleu" (Spolianski).
 New Mayfair Dance Orchestra, "Hungarian Medley" (arrgd. Somers).
 6.15: Paul Whiteman and His Concert Orchestra, "Midnight Reflections."
 Zonophone Salon Orchestra, "Sweet Adeline" (Armstrong).
 'Cello—Beatrice Harrison, "Hassan Serenade" (Delius).
 Paul Whiteman and His Concert Orchestra, "Soliloquy" (Bloom).
 6.30: Band of H.M. Coldstream Guards, "Florodora" Selection (Stuart).
 Organ—Sandy Macpherson, "In an Old-World Garden" (Pepper).
 Zonophone Salon Orchestra, "In the Shadows" (Finck).
 6.45: Jack Hylton's Orchestra, "Memories of Paris" (Padilla).
 'Cello—Beatrice Harrison, "Melody" (Daves).
 New Mayfair Dance Orchestra, "Waltz Medley."
 7.0 : News and market reports.
 7.40: Talk—Mr. Rod Talbot, "Motoring."
 8.0 : Chimes. Instrumental—The Moore Sisters, Trio, "Ave Maria" (Schubert); violin solo, "Chant Hindu" (Rimsky Korsakov); trio, "La Cinquantaine" (Marie).
 8.12: Soprano—Mrs. Arthur Osborne, (a) "I Know How to Tie Ribbon Bows" (arrgd. A.L.); (b) "Elegie" (with violin obligato by Miss Ida Moore) (Massenet); (c) "Carmena" (Lane Wilson).
 8.22: Piano—Mr. Cyril Towsey, "Moonlight Sonata" (Beethoven).
 8.37: One-act play—Mr. and Mrs. J. W. Bailey, "For Winter, for Summer."
 8.47: Baritone—Mr. Len Barnes, (a) "Edward" (Loewe); (b) "Quand la Flamme de l'Amour" (from "La Jolie Fille de Perth" (Bizet); (c) "The Sea Gypsy" (Head).
 8.59: Evening weather forecast and announcements.
 9.1 : Contralto—Miss Phyllis Gribbin, (a) "Moorings" (Sanderson); (b) "O Ship of My Delight" (Phillips); (c) "Mon Coeur S'ouvre a Ta Voix" (Saint Saens); (d) "The Enchantress" (Hattton).
 9.12: Instrumental—The Moore Sisters, trio, "Serenade" (Widor); 'cello solo, "Chanson Triste" (Tschaiakowsky); trio, "Humoreske."
 9.24: One-act play—Mr. and Mrs. J. W. Bailey, "Nine Points of the Law."
 9.32: Programme of dance music.
 Foxtrots—Tom Clines and His Music, "Miss Wonderful."
 Roger Wolfe Kahn and His Orchestra, "Cooking Breakfast for the One I Love" (Rose-Tobias).
 Tom Clines and His Music, "Somebody Might Like You."
 Herbert Gordon and His Hotel Ten Eyck Whispering Orchestra, "You Can't Believe My Eyes" (Bryan-Meyer).
 Abe Lyman and His California Orchestra, "The Rogue Song."
 9.45: Vocal—Dick Robertson, "Singin' in the Bath tub" (Magidson).
 Foxtrots—Herbert Gordon and His Hotel Ten Eyck Whispering Orchestra, "If I Can't Have You" (Bryan).
 Isham Jones' Orchestra, "Nina Rosa" (Caesar).
 Abel Lyman and His California Orchestra, "When I'm Looking at You" (Grey).
 Waltz—Isham Jones' Orchestra, "Your Smiles, Your Tears" (Caesar).
 10.0 : Foxtrots—Jack Denny and His Mount Royal Hotel Orchestra, "A Night of Happiness" (Conrad); "Beside an Open Fireplace" (Denniker); "Hangin' on the Garden Gate" (Kahn); "Just Can't be Bothered with Me" (Kahn).
 10.12: Vocal—Belle Baker, "I'm Walking with the Moonbeams" (Gordon).
 Foxtrots—Roger Wolfe Kahn and His Orchestra, "When a Woman Loves a Man" (Rose-Rainger).
 Bob Haring's Orchestra, "Do Ya' Love Me?" (Gillespie).
 Waltz—Carter's Orchestra, "California Sunshine" (Ford).
 10.24: Foxtrots—Bob Haring's Orchestra, "Where You Are" (Dixon).
 Ben Bernie and His Orchestra, "West Wind" (Robinson).
 10.30: The A. and P. Gypsies, "Gypsy Dream Rose" (Kendis).
 Colonial Club Orchestra, "Why Do You Suppose?" (Hart).
 Bob Haring's Orchestra, "Under a Texas Moon" (Perkins).
 10.39: Vocal—Dick Robertson, "Lady Luck" (Perkins).
 Foxtrots—Colonial Club Orchestra, "My Man is on the Make" (Hart).
 Ben Bernie and His Orchestra, "The One Girl" (Youmans).
 Waltz—Carter's Orchestra, "Old Virginia Moon" (Crawford-Kahn).
 Foxtrots—Abe Lyman and His California Orchestra, "Lucky Me, Loveable You" (Yellen).
 Fred Hamm and His Orchestra, "We Love Us" (Sanders).
 Abe Lyman and His California Orchestra, "Love Ain't Nothin' but the Blues" (Goodwin).
 11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, JANUARY 13.

- 3.0 : Chimes. Selected gramophone recordings.
 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.
 New Symphony Orchestra, "Toy Symphony" (Romberg).
 Concert Orchestra, "Minuet" (Boccherini).
 International Novelty Orchestra, "Lazy Pete" (Kersten).
 6.15: Zonophone Salon Orchestra, "Old Rustic Bridge" (Skelly).
 International Novelty Orchestra, "Eva" Waltzes (Lehar).
 Organ—Sidney Gustard, "Cuckoo" (Jonasson).
 International Novelty Quartet, "Over the Waves" (Rosas).
 6.30: International Novelty Orchestra, "Carmen Sylva" (Ivanovici).
 Zonophone Salon Orchestra, "Killarney" (Balfe).
 International Novelty Orchestra, "Parade of the Wooden Soldiers."

- International Novelty Quartet, "See Me Dance the Polka" (Grossmith).
 6.45: Concert Orchestra, "Sous Bois" (Staub).
 Organ—Sandy Macpherson, "I Promise" (Hirsch-Wilhte).
 National Symphony Orchestra, "Zampa" Overture (Herold).
 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), "Merrie England" (German).
 Violin—Mr. W. Haydock and Salon Orchestra, "Nocturne in D."
 8.16: Tenor—Mr. Will Hancock and Etude Quartet, "The Old Rustic Bridge."
 Baritone—Mr. Ray Kemp and Etude Quartet, "Carry Me Back to Old Virginny" (Bland).
 Soprano—Miss Greta Stark and Etude Quartet, "Dancing with Tears in My Eyes" (Burke).
 8.26: Piano-accordeon—Mr. J. Blackwood, (a) "March—Old Comrades" (Teike); (b) "Scotch Medley" (arrgd. Blackwood); (c) "Popular Airs" (arrgd. Blackwood).
 8.38: Quartet—Etude, "Whippoorwill" (de Voll).
 Tenor—Mr. Will Hancock and Etude Quartet, "Come to the Ball."
 Duet—Miss Greta Stark and Mr. Ray Kemp, "Trot Here and There."
 8.48: Selections—B.B.C. Wireless Military Band, "Dance of the Tumblers" (Rimsky-Korsakov); Band, of H.M. Grenadier Guards, "Ivanhoe."
 9.0 : Weather report and station notices.
 9.2 : Selections—Salon Orchestra, (a) "On Jhelum River" (Woodforde-Finden); (b) "Serenade" (Widor).
 9.16: Sketch—Miss Zena Jupp and Mr. Errol Muir, "Spring Onions."
 9.31: Duet—Miss Greta Stark and Mr. Will Hancock, "Shimmy with Me."
 Contralto—Mrs. Ray Kemp, "A Quaker Girl" (Monckton).
 Soprano—Miss Greta Stark and Etude Quartet, "Dancing Time."
 Duet—Mr. and Mrs. Ray Kemp, "The Blue Room" (Donaldson).
 9.48: Selections—Salon Orchestra, (a) "Love in Arcady" (Wood); (b) "Prize Song" (from "The Meistersingers") (Wagner); (c) "Dream Castle" (Hope).
 10.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, JANUARY 13.

SILENT DAY.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, JANUARY 13.

- 3.0 : Chimes. Gramophone items.
 4.25: Sporting results.
 5.0 : Chimes. Children's hour, conducted by Uncle Bert.
 6.0 : Dinner music session.
 Royal Italian Band, "Marcia Reale" (Gabetti).
 Court Symphony Orchestra, "In Venice" (Sellars).
 Organ—Stanley MacDonald, "Was it a Dream?" (Coslow).
 Royal Italian Band, "Garibaldi's Hymn" (Olivieri).
 6.15: Ketelbey's Concert Orchestra, "Sanctuary of the Heart" (Ketelbey).
 'Cello—W. H. Squire, "Melody in F" (Popper).
 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."
 6.45: H.M. Grenadier Guards, "Turkish Patrol" (Michaelis).
 Organ—Stanley MacDonald, "Nicolette" (Batten).
 Jacques Jacobs' Ensemble, "Weiner Blut" (Strauss).
 H.M. Grenadier Guards Band, "Smithy in the Woods" (Michaelis).
 7.0 : News session.
 8.0 : Chimes. Studio programme by Kalkorai Band, under conductorship of Mr. T. J. Kirk-Burnand, and assisted by 4YA artists. March—Band, "Simplicity" (Hume); waltz, "Destiny" (Baynes).
 8.12: Soprano—Miss T. C. Blackman, (a) "Lonesome and Sorry" (Conrad); (b) "So Blue" (de Sylva); (c) "After Dark" (Johnson).
 8.22: Monologue—Pat Hanna, "Pat Hanna Discourses on Cricket."
 8.30: Novelty fantasia by Kalkorai Band, "1930 Tour of Australian Eleven Through England," consisting of folk songs arranged by conductor of band, with descriptive lecture by President of Otago Cricket Association, Mr. George Wycherley. Vocalist, Mr. D. Wrathall, (a) "Leaving Australia," (b) "Arrival in England," (c) "Worcester, Leicestershire, Essex, Yorkshire, Middlesex, Cambridge University, First Test at Nottingham, Surrey, Second Test at Yorkshire, Nottingham."
 9.0 : Weather report and station notices.
 Continuation of presentation of fantasia with arrival of team at Leeds—Third Test, Scotland, Sunderland, Fourth Test at Manchester, Somerset, Glamorganshire, Warwickshire, Northamptonshire, Fifth Test at Oval, Gloucestershire, Kent and Sussex.
 10.12: March—Band, "The Victor's Return" (Bulch).
 10.15: God save the King.

Wednesday, January 14

1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, JANUARY 14.

- 3.0 : Selected gramophone recordings.
 3.30: Literary selection and further gramophone recordings.
 5.0 : Children's session.
 6.0 : Dinner music session.
 Dajos Bela Orchestra, "Gypsy Love" (Lehary).

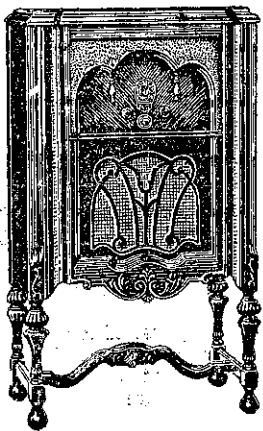
- Edith Lorand's Orchestra, "La Boheme" (Puccini).
 New Light Symphony Orchestra, "The Waltzing Doll" (Poldini).
 6.15: Dajos Bela Orchestra, "Mon Reve" (Waldteufel).
 New Symphony Orchestra, "Mediterranean" (Bax).
 Organ duet—Mr. and Mrs. Jesse Crawford, "The Moonlight Reminds Me of You" (Kahn).
 Dajos Bela Orchestra, "I Love You" (Waldteufel).
 6.30 Dajos Bela Orchestra, "You and You" (J. Strauss).
 Mandoline Concert Society, "Echoes of the Volga" (Ritter).
 New Light Symphony Orchestra, "At Dawning" (Cadman).
 6.45: Band of H.M. Coldstream Guards, "Les Cloches De Corneville" selection (Planquette).
 Dajos Bela Orchestra, "Vienna Bon Bons" (J. Strauss).
 7.0 : News and market reports.
 8.0 : Chimes. March—Congress Hall Band, under direction of Mr. T. Paice "In The Firing Line" (Coles); selection—"Precious Thoughts" (Slaters).
 8.11: Vocal Quartet—The Orpheus Quartet, "In Springtime" (Newton).
 Soprano—Miss Chrissie Foster, "Just a Wearyin' For You" (Bond).
 8.26: Cello—Beatrice Harrison, "The Broken Melody" (Van Biene).
 8.40: Baritone—Mr. E. M. Newling, (a) "So Fair a Flower" (Lohr); (b) "Stone Cracker John" (Coates).
 8.27: Cornet—Bandman R. F. Davies, "The Song That Reached My Heart."
 8.32: Elocution—Miss Rose Carte, "On the Other Train" (A Clock's Story).
 8.37: Grand selection—Band, "Gems from Great Masters" (arr. McAnally).
 8.51: Tenor—Mr. S. Poffley, "A Little Wooing" (Elsdell).
 Duet—Miss Chrissie Foster and Miss Cathleen Mulqueen, "Gentle Moon" (Schank).
 8.57: Selection—J. H. Squire's Celeste Octet, "Evening Lullaby."
 9.0 : Evening weather forecast and announcements.
 9.2 : Selection—J. H. Squire's Celeste Octet, "Evensong at Twilight."
 9.5 : The Orpheus Quartet, "Boat Song" (Cowen).
 Mezzo contralto—Miss Cathleen Mulqueen, "The Dorothy Perkins Rose" (Carew).
 9.11: Tone poem—Band, "Man of Sorrows" (Salvo).
 Male Voices with band, "Nearer My God To Thee" (Dykes).
 9.24: Humorous Recitation—Miss Rose Carte, (a) "How Mrs. Brown Chopped the Wood" (Anon.), (b) "A Telephone Conversation" (Anon.).
 9.30: Organ—Pattman, "Firefly" (Nicholls).
 9.33: The Orpheus Quartet, "That Little World Is Mine" (Dippen).
 Tenor—Mr. S. Poffley, "Farewell in the Desert" (Adams).
 9.40: Selection—Band, "Gems From Haydn" (arr. Coles).
 9.52: The Orpheus Quartet, "O Peaceful Night" (German).
 9.56: March—Band, "Flag of Freedom" (Coles).
 10.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, JANUARY 14.
 SILENT DAY.

SUBSTANTIAL CONSTRUCTION

A Feature of the New

GULBRANSEN



The chassis of the new Gulbransen "Champion" is built by expert technicians to a consistently high standard through precision manufacturing methods. Each set must conform in every detail with the master laboratory model, thereby ensuring a high standard of performance from every set made.

With screen-grid valves, giving selectivity, sensitivity and tone-control, housed in a beautiful cabinet of pleasing design and proportion, this set is worthy of the finest home, and you should hear it to-day.

The New Champion

GULBRANSEN

DEALERS EVERYWHERE

N.Z. Distributors: H. W. CLARKE, LTD., Wellington

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, JAN. 14.

- 3.0 : Afternoon session gramophone recital.
 4.25: Sports results.
 5.0 : Children's Hour, conducted by Uncle John.
 6.0 : Dinner music session.
 Royal Opera Orchestra, "Faust" Ballet Music (1st to 4th Movements).
 San Francisco Symphony Orchestra, "Rosamund Entr'Acte."
 6.15: National Symphony Orchestra, "Stradella" Overture (Flotow).
 Organ—Reginald Foort, "The Riff Song" (Romberg).
 Philadelphia Symphony Orchestra, "Samson and Delilah" Bacchanale.
 6.30: Royal Opera Orchestra, "Faust" Ballet Music (5th to 7th Movements).
 Organ—Reginald Foort, "The Desert Song" (Romberg).
 Philadelphia Symphony Orchestra, "Damnation of Faust" (Berlioz).
 6.45: National Military Band, "Ballet Egyptien" (Luigini).
 National Symphony Orchestra, "Norma Overture" (Bellini).
 7.0 : News session.
 7.15: Relay from 4YA, Dunedin—Messrs. R. B. Tennent and L. W. McCaskill (under the auspices of 4YA Primary Productions Committee), entitled, "Farmer Brown Considers Selling His Farm."
 7.30: Addington stock reports.
 8.0 : Chimes. Overture—Milan Symphony Orchestra, "Il Matrimonio Segreto" (Cimarosa).
 8.8 : Salon Quartet, "Laughing Chorus" (Root).
 Baritone—Mr. J. Graham Young, "My Old Shako" (Trotter).
 8.13: Cornet—Mr. R. Ohlsen, "Pearl of the Ocean" (Hock).
 8.18: Contralto—Miss Dulcie Mitchell, "Thank God For a Garden."
 Soprano and tenor—Salome Duo, "Garden of Love" (from "Gipsy Love" (Lehar).
 8.23: Selections—Plaza Theatre Orchestra, (a) "Bal Masque" (Fletcher), (b) "Pearl O' Mine" (Fletcher).
 8.29: Dramatic Recital and Sketch—Mr. J. F. Montague, (a) "Thomas Atkins" (arr. Montague), (b) "The Sporting Life."
 8.47: Harp—Mr. H. G. Glaysher, "Londonderry Air" (arr. Glaysher).
 8.51: Soprano—Miss Mary O'Connor, (a) "Irish Folk Song" (Foote), (b) "The Gingham Gown" (Penn).
 Tenor—Mr. H. J. Francis, "Mountain Lovers" (Weatherley).
 8.58: Cornet—Jack Mackintosh, "Zelda" (Code).
 9.1 : Weather forecast and station notices.
 9.3 : Selections—Band of H.M. Grenadier Guards, (a) "The Smithy in the Woods" (Michaelis), (b) "The Turkish Patrol" (Michaelis).
 9.9 : Baritone—Mr. J. Graham Young, "Stone Cracker John" (Coates).
 Contralto and baritone—Salvina Duo, "Can We Forget" (from "Oh, Oh, Delphine" (Hirsch).
 9.16: Cornet—Mr. R. Ohlsen, "Bouquet" (Hock).
 9.22: Soprano—Miss Mary O'Connor, (a) "Cuckoo Calls" (Brahe), (b) "Top O' The Morning" (Sanderson).
 9.26: Cornet—Jack Mackintosh, "Carnival De Venise" (Arban).
 9.29: Monologue—Mr. J. F. Montague, "Orange Blossoms" (Romer); Humour "The Babies" (Rutherford).
 9.39: Contralto—Miss Dulcie Mitchell, "I Know a Lovely Garden."
 Tenor—Mr. H. J. Francis, "The Trumpeter" (Dix).
 9.45: Harp—Mr. H. G. Glaysher, "Sur Le Rive De La Mer" (Oberthur).
 9.53: Salon Quartet—"Tis the Last Rose of Summer" (Old Irish).
 9.57: Selection—Band of the Coldstream Guards, "Iolanthe" (Sullivan).
 10.1 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, JANUARY 14.

- 3.0 : Chimes. Selected gramophone items.
 3.15: Lecture—"Filling the New Year Cookie Par." Talk arranged by the Home Science Extension Department of Otago University.
 5.0 : Chimes. Children's session, conducted by Big Brother Bill.
 6.0 : Dinner music session.
 The London Orchestra, "Valse Memories" (arrgd. Somers).
 Organ—Jesse Crawford, "La Borrachita" (Fernandez Esperon).
 Chicago Symphony Orchestra, (a) "Serenade" (Volkman); (b) "Flight of the Bumble Bee" (Rimsky-Korsakov).
 6.15: Piccadilly Orchestra, "The Waltz Dream" (Strauss).
 Marimba Band, "Morales Lopez" (Bolanos).
 Royal Opera Orchestra, "Prelude—The Huntress" (Delibes).
 6.30: Band of H.M. Coldstream Guards, "The Geisha" (Jones).
 Marek Weber's Orchestra, "Mennett No. 1" (Paderewski).
 Organ—Jesse Crawford, "I Loved You Then as I Love You Now."
 Salon Orchestra, "Aloha Sunset Land" (Kawelo).
 6.45: Marek Weber's Orchestra, "Coner Brise" (Gillet).
 Salon Orchestra, "Chanson Boheme" (Baldi).
 Marimba Band, "Aguas Dormides" (Bolanos).
 Band of H.M. Coldstream Guards, "The Belle of New York" (Kerker).
 7.0 : News session.
 7.15: Dialogue—Mr. R. B. Tennent and Mr. L. W. McCaskill, under the auspices of 4YA Primary Productions Committee, "Farmer Brown Considers Selling His Farm."
 8.0 : Chimes. Selection—Band of H.M. Grenadier Guards, "Merrie England."
 8.9 : Soprano—Miss D. Sligo, (a) "The Willow" (Thomas); (b) "The Enchanted Forest" (Phillips).
 8.15: Instrumental—Misses Holmes, Moffatt and Judd, "Scherzo from Trio in B Flat" (Schubert); "Adagio from B Flat Trio" (Beethoven).
 8.25: Recitals—Mr. D. E. Dall, "He Fell Among Thieves" (Newbolt); "The Soldier" (Brooke).
 8.30: Bass—Mr. E. Bond, "Devonshire Cream and Cider" (Sanderson).
 8.33: Violin—Miss E. Judd, (a) "Buona Notte" (Nevin); (b) "Chant."

- 8.39: Contralto—Mrs. Nellie G. Shrimpton, (a) "Mountain Lovers" (Squire); (b) "I Heard You Go By" (Wood).
- 8.45: Selections—Instrumental Trio, "Three Slavonic Dances" (Dvorak): (1) "D Minor," (2) "A Flat Major," (3) "C Minor."
- 8.59: Weather report and station notices.
- 9.1: Soprano—Miss D. Sligo, "Song of Sunshine" (Thomas).
- 9.4: Piano—Miss Ida Lungley, "First Movement Sonata, No. 1, Op. 22."
- 9.8: Recitals—Mr. D. E. Dall, "Handy Andy Goes to the Post Office."
- 9.18: Bass—Mr. E. Bond, (a) "A Sergeant of the Line" (Squire); (b) "The Auld Plaid Shawl" (Haynes).
- 9.19: Selection—Instrumental Trio, "Miniatures" (Frank Bridge).
- 9.29: Contralto—Mrs. Nellie G. Shrimpton, "I Did Not Know" (Trottere).
- 9.32: Dance session.
- Foxtrots—The Rhythmic Eight, "I'm Doing what I'm Doing for Love." The High Hatters, "Hoosier Hop" (Dreyer). Jack Hylton's Orchestra, "Button Up Your Overcoat." Nat Shilkret's Orchestra, "Chant of the Jungle" (Freed). Jack Hylton's Orchestra, "My Lucky Star" (de Sylva).
- 9.45: Vocal duet—The Duncan Sisters, "I'm Following You" (Dreyer). Foxtrots—The High Hatters, "Look for the Silver Lining" (Wodehouse). Rudy Vallee and His Connecticut Yankees, "You're Just Another Memory" (Coots). The High Hatters, "Wild Rose" (Gray). Waring's Pennsylvanians, "Navy Blues" (Turk). Leo Reisman's Orchestra, "Happy Days Are Here Again."
- 10.3: Waltz—George Olsen and His Music, "Romance" (Leslie). Foxtrots—Rudy Vallee and His Connecticut Yankees, "I Love You, Believe Me, I Love You" (Cowan). Nat Shilkret and His Orchestra, "Bigger and Better than Ever" (Friend). Vocal—Daniel Haynes and Dixie Jubilee Singers, "Waiting at the End of the Road" (Berlin).
- 10.15: Foxtrots—George Olsen and His Music, "After a Million Dreams." New Mayfair Orchestra, "There's Room in My Heart." Nat Shilkret's Orchestra, "That Wonderful Something." New Mayfair Dance Orchestra, "I'll Be Getting Along." The Rhythmic Eight, "I'm Feathering a Nest" (Yellen).
- 10.30: Waltz—Rudy Vallee and His Connecticut Yankees, "If You Were the Only Girl in the World" (Grey). Foxtrots—The High Hatters, "I'm Following You" (Dreyer). Jack Hylton's Orchestra, "The Banjo" (That Man Joe Plays). Vocal duet—The Duncan Sisters, "Hoosier Hop" (Dreyer).
- 10.42: Foxtrots—Jackie Taylor's Orchestra, "A Night of Happiness" (Conrad). Jack Hylton's Orchestra, "Turn on the Heat." Jackie Taylor's Orchestra, "Sitting by the Window" (Conrad). Jack Hylton and His Orchestra, "If I had a Talking Picture of You" (de Sylva). George Olsen and His Music, "South Sea Rose" (Gilbert). Leo Reisman and His Orchestra, "Lucky Me, Lovable You."
- 11.0: God save the King.

2YB, NEW PLYMOUTH (1230 KILOCYCLES)—WEDNESDAY, JAN 14.

- 6.30: Children's session.
- 7.30: News, markets, and information.
- 8.0: Studio concert.

Thursday, January 15

1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, JANUARY 15.

- 8.0: Selected studio items.
- 8.15: Lecturette—"Meals that Keep the Family Fit." Talk arranged by the Home Science Extension Department of Otago University.
- 5.0: Children's session, conducted by "Peter Pan."
- 6.0: Dinner Music session.
- Scala Concert Orchestra, "The Merry Widow Waltz" (Lehar). Edith Lorand's Orchestra, "Norma" Fantasia (Bellini). Still Picture Theatre Organ, "Minuet in G" (Beethoven).
- 6.15: Band of H.M. Life Guards, "Cavalleria Rusticana" Selection. The Scala Trio, "Moment Musical" (Schubert). Scala Concert Orchestra, "A Waltz Dream" (O. Strauss).
- 6.30: Symphony Orchestra, "La Tosca" Selection (Puccini). Still Picture Theatre Organ, "Les Millions d'Arlequin" (Drigo). Edison Bell Symphony Orchestra, "Gold and Silver" (Lehar). Jack Padbury's Cosmo Club Six, "Enchantment-Tango."
- 6.45: Band of H.M. Life Guards, "The Arcadians" (Monckton). The Scala Trio, "Le Cygne" (Saint Saens). The Six Nite Lights, "Love's Old Sweet Song" (Molloy).
- 7.0: News and market reports.
- 8.0: Chimes. Selection—Orchestral Octet, under direction of Mr. Harold Baxter, "Pirates of Penzance" (Sullivan); overture, "Fantastic."
- 8.17: Contralto—Mrs. B. Jellard, (a) "Children's Home" (Cowen); (b) "Meeting of the Waters" (Irish Traditional); (c) "Hills of Donegal" (Sunderson).
- 8.27: Patrol—Orchestral Octet, "Wee MacGregor" (Amers); selection, "Serenata" (Moszkowski); march, "Children of the Regiment."
- 8.38: Baritone—Mr. R. R. Thimpson, (a) "Into the Dawn to Be" (Stephenson); (b) "For You" (Montague); (c) "Don't be a Weary Traveler" (arrgd. Fisher); (d) "Spring's a Lovable Layde" (Elliot).

- 8.49: Selections—Royal Italian Band, (a) "Marcia Reale" (Gabetti); (b) "Inno di Garibaldi" (Olivier). Band of H.M. Grenadier Guards, (a) "Barcarolle"; (b) "Valse Creole."
- 9.3: Evening weather forecast and announcements.
- 9.5: Waltz—Orchestral Octet, "Blue Danube" (Strauss).
- 9.11: Humorous songs—Mr. W. H. Pearce, (a) "Simple Life" (Dowling); (b) "When Father was Mother for a Day" (Frompton); (c) "Jenny, My Own True Love" (Osborne and Foole).
- 9.23: Novelty piano—Mr. Merv. Bree, (a) "Waltz Brilliant" (Bree); (b) "Medley of Jazz Pianoforte Numbers" (arrgd. Bree).
- 9.34: Choral—Salisbury Singers, (a) "Early One Morning"; (b) "When for the World's Repose." Don Cossacks' Choir, (a) "Evening Bells" (arrgd. Jaroff); (b) "Serenade" (Abt).
- 9.48: Suite—Orchestral Octet, "Ballet Egyptien" (Lugini).
- 10.1: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, JANUARY 15.

- 3.0: Chimes. Selected recorded items.
- 3.15: Lecturette—Miss I. F. Meadows, "Meals That Keep the Family Fit." Talk arranged by the Home Science Department of 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.
- Suite—Ketelbey's Concert Orchestra, "In a Fairy Realm" (Ketelbey). 1—The Moonlit Glade; 2—The Queen Fairy Dances; 3—Gnomes March.
- 6.15: Columbia Symphony Orchestra, "March of the Bojaren" (Halvorsen). Cello—Gaspar Cassado, "Melodie Arabe" (Glazounov). New Queen's Hall Light Orchestra, "Wood Nymphs" (Coates).
- 6.30: New Queen's Hall Light Orchestra, "Summer Days Suite" (Coates). 1—In a Country Lane; 2—On the Edge of the Lake; 3—At the Dance.
- 6.45: J. H. Squire's Celeste Octet, "Memories of Mendelssohn." Columbia Symphony Orchestra, "Bridal Procession" (Grieg).
- 7.0: News session, market reports and sports results.
- 7.40: Lecturette—Mr. W. M. Jackson, "Gladioli."
- 8.0: Chimes. A studio concert by the Wellington Artillery Band (Conductor, Captain T. Herd) and 2YA Artists. March—Band, "Am Schonen Strand der Elbe" (Vollstedt). Military Fantasia—"La Militaire" (Raymond).
- 8.13: Tenor—Mr. Chas. Williams, "The One of all the World" (Lohr). Quartet—The Lyric, "Kerb Step" (Young). Baritone—Mr. Will Goudie, "To-morrow" (Keel).
- 8.23: Violin—Louis Zimmerman, "Adagio" (from "Concerto in G Minor"). Selections—J. H. Squire's Celeste Octet, (a) "Twilight on the Waters" (Squire); (b) "The Piccaninnies Picnic" (Squire).
- 8.38: Descriptive piece—Band, "A Hunting Trip" (Holloway). Cornet—Sergeant W. H. Bowman, "The Merry-go-Round" (Rimmer). Serenade—The Band, "Sweet Dreams to Thee" (Beyer).
- 8.58: Weather report and station notices.
- 9.0: Bass—Mr. W. Binet Brown, "Cloze Props" (Charles). Quartet—The Lyric, "Evening" (Abt). Tenor—Mr. Roy W. Hill, "Three Sea Songs" (Quilter).
- 9.10: Fantasia—Band, "The Carnival of Flowers" (Le Duc).
- 9.20: Soprano—Miss Gwladys Edwardes, (a) "Ashoo at Her Lattice"; (b) "Only a Rose"; (c) "At Nightfall"; (d) "Asleep."
- 9.32: Community sing led by the Lyric Quartet, "Give Yourself a Pat on the Back" (Butler); "Happy Days" (Ager).
- 9.48: Waltz—Band, "Sunset on the St. Lawrence" (Heller). March—"The Pilot" (Funk).
- 10.0: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, JANUARY 15.

- 3.0: Gramophone recital.
- 3.15: Lecturette—"Meals that Keep the Family Fit." Talk arranged by the Home Science Extension Department of Otago University.
- 4.25: Sports results.
- 5.0: Children's hour, Uncle Frank and Cousin Neil.
- 6.0: Dinner session.
- New Light Symphony Orchestra, "Scene de Ballet—Marionettes." Berlin State Opera Orchestra, "Polonaise No. 2" (Liszt). Violin—Misha Elman, "Vocalise" (Rachmaninoff).
- 6.15: National Symphony Orchestra, "Fra Diavolo" Overture (Auber). Piano—Vladimir de Pachmann, (a) "Mazurka in C Sharp Minor, Op. 63, No. 3"; (b) "Mazurka in A Minor, Op. 67, No. 4" (Chopin). Trio—De Groot (violin), David Bor (piano), H. M. Calve ('cello), "El Religioso" (Padilla).
- 6.30: Band of H.M. Coldstream Guards, "Martha" Selection (Flotow). Violin—Misha Elman, "Caprice in E Flat Major" (Wieniawski). New Symphony Orchestra, "Air on G String" (Bach).
- 6.43: New Light Symphony Orchestra, "Persiflage" (Francis). New Symphony Orchestra, "Londonderry Air" (arrgd. Grainger). Trio—De Groot (violin), David Bor (piano), H. M. Calve ('cello), "Selection in Hebrew Melodies" (arrgd. Saunders). Piano—Vladimir de Pachmann, "Nocturne in E Minor, Op. 72" (Chopin).
- 7.0: News session.
- 7.30: Talk—Mr. E. E. Wiltshire, "New Gladioli."
- 8.0: Chimes. Selection—Salon Orchestra, "Nola" (Arndt).

- 8.3 : Grand Opera Quartet, "Snow" (Elgar).
 Contralto—Miss Alice Vinsen, "The Dawn has a Song."
 8.9 : Cello—Miss Marjorie Chapman, "Berceuse" (Jarnfeldt).
 8.12 : Tenor—Mr. Ernest Rogers, "O Come Let Links Eternal."
 8.17 : Instrumental trio—Misses Thelma Cusack, Marjorie Chapman and Mr. Fred. Page, "Molto Allegro Agitato" (Mendelssohn).
 8.25 : Soprano—Madame Gower Burns, "A Song of India."
 8.28 : Elocutionary—Mr. J. T. Watts, "The Old Grey Squirrel" (Noyes).
 8.32 : Clarionet—Mr. M. E. Withers, "Alicante" (le Thier).
 8.37 : Bass—Mr. Jas. Filer, "The Wanderer" (Schubert).
 Tenor and bass—Grand Opera Male Duo, "Flow Gently, Deva" (Parry).
 Contralto—Miss Alice Vinsen, "Creation's Hymn" (Beethoven).
 8.45 : Cello—Miss Marjorie Chapman, "Orientale" (Cui).
 Selection—Instrumental Trio, "Spring Song" (Mendelssohn).
 8.50 : Soprano—Madame Gower Burns, "Lullaby" (Scott).
 Soprano and contralto—Grand Opera Duo, "Sunbeams" (Ronald).
 8.54 : Clarionet—Mr. M. E. Withers, "Virginia" (Gerhardt).
 9.0 : Weather report and station notices.
 Tenor—Mr. Ernest Rogers, "Siciliana" (from "Cavalleria Rusticana").
 9.4 : Elocutionary—Mr. J. T. Watts, "Spanish Waters" (John Masefield).
 9.9 : Bass—Mr. J. Filer, "Ah, Weep No More" (Tschakowski).
 Grand Opera Quartet, (a) "London Town" (German); (b) "Shepherdess and Bean Brocade" (German).
 9.20 : Selections—Instrumental Trio, (a) "Minuet in F" (Beethoven); (b) "Serenade" (Chaminade); (c) "Polish Dance" (Shanwenka).
 9.30 : Dance music.
 Foxtrots—Cotton Pickers, "He's a Good Man to have Around" (Yellen).
 Ray Miller's Orchestra, "Someone's Falling in Love."
 Cotton Pickers, "Shoo, Shoo, Boogie Boo" (Robin).
 Ray Miller's Orchestra, "You Want Lovin'" (Spier).
 9.42 : Vocal duet—The Inspiration Boys, "On the Alamo" (Kahn).
 Foxtrots—Gernovich's Roof Garden Orchestra, "There's Sugar Cane Around My Door" (Leonard).
 Mount Royal Hotel Orchestra, "Finding the Long Way Home"
 Waltzes—Regent Club Orchestra, "Mistakes" (Leslie).
 Carter's Orchestra, "Three O'Clock in the Morning" (Terriss).
 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."
 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)—THURSDAY, JANUARY 15.

SILENT DAY.

Friday, January 16

1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, JANUARY 16.

- 3.0 : Gramophone recital.
 3.30 : Literary selection by the Announcer, and further gramophone recordings.
 5.0 : Children's session, conducted by "Nod" and "Aunt Jean."
 6.0 : Dinner music session.
 Edison Bell Symphony Orchestra, Paris, "Ballet Egyptien" (Luigini).
 Marcu's Roumanian Orchestra, "It is Written on Your Lips."
 6.15 : Edison Bell Symphony Orchestra, Paris, "Manon" (Massenet).
 The Scala Trio, "Apres un Reve" (Faure).
 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.
 6.45 : Scala Salon Orchestra, "Say It With Songs" Selection (de Sylva).
 The Scala Trio, "Elegie" (Massenet).
 Marcu's Roumanian Orchestra, "Two Red Roses, a Gentle Kiss."
 7.0 : News and market reports.
 8.0 : Chimes: Selection—Hermann Finck's Orchestra, "Schubertiana, Part 1" (Schubert, arr. Finck).
 8.5 : Contralto—Miss Martha Williamson, (a) "Sweet Lady Moll" (Philips); (b) "The Lady of the Lea" (Smart).

- 8.11 : Instrumental—Barry Ingall's Hawaiian Quartet, (a) "Bright Moon" (Roberts); (b) "Hawaiian Rainbow" (Crayelle).
 8.18 : Baritone—Mr. Peter Black, "A Brown Bird Singing" (Coates).
 8.20 : Popular songs at the piano—Miss Edna Langmuir, "Miss You."
 8.26 : Selection—Hermann Finck's Orchestra, "Schubertiana, Part 2."
 8.30 : Barry Ingall's Hawaiian Quartet, (a) "Southern Seas Lament."
 Banjo—Mr. Norman Ingall, (b) "The Savoy Rag" (Mandell).
 8.38 : Contralto—Miss Martha Williamson, (a) "My Ship" (de Riego); (b) "Banks of Allan Water" (Anon).
 8.44 : Talk—Mr. A. B. Chappell, M.A., "Topical Talk."
 8.59 : Evening forecast and announcements.
 9.1 : Selections—Band of H.M. Grenadier Guards, (a) "Flanders Poppies"; (b) "Wreaths on the Sea."
 9.9 : Baritone—Mr. Peter Black, (a) "Sincerity" (Clarke); (b) "Tomorrow" (Keel).
 9.15 : Novelty—The Asquiths, "Twenty-minute Drawing-room Entertainment."
 9.35 : Organ—Pattman, "Rosalie" (Wade and Valentine).
 9.38 : Popular songs at the piano—Miss Edna Langmuir, (a) "Sing, You Sinners" (Coslow); (b) "Latest Hit."
 9.45 : Barry Ingall's Hawaiian Quartet, (a) "Aloha Sunset" (Kaweno); (b) "Static March" (arr. Ingall).
 9.52 : Selection—New Concert Orchestra, (a) "Hydropaten" (Gungl); (b) "Jolly Fellows" (Bruder).
 10.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, JANUARY 16, 1931.

- 3.0 : Chimes—Selected Gramophone recordings.
 3.30 and 4.30 : Sporting results to hand.
 5.0 : Children's Session, conducted by Uncle Jim and the Story Book Lady
 6.0 : Dinner Music Session.
 Marek Weber and His Orchestra, "Cavalleria Rusticana" selection.
 Violin—Fritz Kreisler, "Schon Rosma'in" (Kreisler).
 Vienna Philharmonic Orchestra, "Hungarian Dance No. 8" (Brahms).
 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).
 6.30 : Berlin State Orchestra, "Oberon Overture" (Weber).
 Violin—Fritz Kreisler, "Rondino" (Kreisler).
 Vienna Philharmonic Orchestra, "Hungarian Dance No. 1" (Brahms).
 6.45 : Royal Opera Orchestra, "Entr'acte, Act 4 and Ballet Music" (Bizet).
 Piano—Mischa Levitzki, "Ecossaise" (Beethoven).
 De Groot and His Orchestra, "Romance" (Rubenstein).
 7.0 : News session—Market reports and sports results.
 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—2YA Orchestra (Conductor: Signor A. P. Truda).
 "Emblem" (Schlepegrell).
 Soprano—Miss Flora MacKenzie, "Let Me Sing and I'm Happy" (Berlin); (b) "Ten Little Miles from Town" (Schoebel); (c) "M'HM" (Traditional); (d) "The Auld Scotch Songs" (Leeson).
 Popular Songs with Ukulele—Mrs. R. M. Cummins, (a) "Sittin' on a Rainbow" (Dougherty); (b) "Down the River of Golden Dreams" (Shilkret).
 Selection—Orchestra, "Little Dutch Girl" (Kalman).
 Elocution—Mr. J. F. Montague, (a) "The Book with the Yellowed Pages"; (b) "How Thy Snored"; (c) "Kicking-Strap's Race".
 Baritone—Mr. Harry Mitchell, (a) "Glorious Devon" (German); (b) "Drake Goes West" (Sanderson); (c) "Passing By" (Purcell).
 Selection—Orchestra, "Poppy" (Samuels).
 Weather report and station notices.
 Popular songs with ukulele—Mrs. R. M. Cummins, (a) "A Cosy Nook" (Brady); (b) "Song of Hawaii" (Corbell).
 Selections—Orchestra, (a) "Dream of Christmas" (Ketelbey); (b) "Globe Trotter" (Leopold).
 Monologue—Mr. J. F. Montague, "A Bunch of Roses" (Paterson).
 Humour—Selected Dramatic Recital, "Orakau" (Bracken).
 March—Orchestra, "Bersaglieri" (Ellenberg); Foxtrot, "A Pair of Blue Eyes" (Kernell).
 Dance Programme.
 Foxtrots—Valee's Connecticut Yankees, "Heigh Ho! Everybody, Heigh Ho!" (Woods).
 Shilkret's Orchestra, "Hittin' the Ceiling" (Gottler).
 Weem's 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).
 Foxtrots—Valee'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 Son" (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).

- Shi'aret'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".
 George Olsen and His Music, "Reaching for Someone".
 Vocal Duet—Dora Maughan and Walter Fehl, "Eggs, Toast and Coffee" (Merrill).
 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)—FRIDAY, JANUARY 16.

- 3.0 : Gramophone recital.
 4.25: Sports results.
 5.0 : Children's hour, "Chuckie."
 6.0 : Dinner music session.
 London Symphony Orchestra, "Czar Sultan" Suite.
 International Concert Orchestra, "Waltz Dream" (Strauss).
 8.15: New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg). 1—Ingrid's Lament; 2—Arabian Dance; "Prelude in G Minor."
 8.30: New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg). 1—Return of Peer Gynt; 2—Solveig's Song; "Prelude in C Sharp Minor" (Rachmaninoff).
 8.45: Philadelphia Symphony Orchestra, "Danse Orientale" (Glazounov).
 International Concert Orchestra, "Sari" (Kalman).
 Philadelphia Symphony Orchestra, "March of the Caucasian Chief."
 7.0 : News session.
 8.0 : Chimes. Selection—Marek Weber's Orchestra, "Potpourri of Waltzes."
 8.9 : Tenor—Mr. Douglas Suckling, (a) "Sheila" (Bamford); (b) "Dearest I Love the Morning" (Haydn Wood); (c) "Mary."
 8.19: Banjo—Mr. Stan Birch, "Poet and Peasant" Overture (Suppe).
 8.29: Mezzo-contralto—Mrs. Sen Jowett, (a) "Beneath de Willers" (Coombes); (b) "For Ever and a Day" (Mack); (c) "Gartan Mother's Lullaby" (Old Irish, arr. Hughes).
 8.39: Studio Octet (Deputy-conductor, H. G. Glaysher), "Romantique Overture" (Kela Bela); American Indian Songs (Cadman), (a) "From the Land of the Sky Blue Water"; (b) "The White Dawn is Stealing"; (c) "The Moon Drops Low."
 8.54: Chorus and orchestra of Theatre National de L'Opera, (a) "La Kermesse"; (b) "Soldiers' Chorus" (from "Faust") (Gounod).
 8.59: Weather forecast and station notices.
 9.1 : Selection—Marek Weber's Orchestra, "The Beggar Student."
 Violin—Mischa Elman, "Caprice in E Flat Major" (Wieniawski).
 9.12: Humour—Mr. George Titchener, (a) "Silly Ass" (Tom Clare); (b) "Leave Her Alone with Them" (Chas. Osborne).
 9.22: Selection—Studio Octet, "The Country Girl" (Monckton).
 9.37: Mezzo-soprano—Mrs. Grace Empson, (a) "A Summer Night" (Goring Thomas); (b) "At the Mid-Hour of Night" (Cowen); (c) "Mignon" (D'Hardelet).
 9.47: Choral—Medley, "Sea Songs."
 9.51: Instrumental—Studio Octet, "Three Dale Dances" (Wood).
 10.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, JANUARY 16.

- 3.0 : Chimes. Selected gramophone items.
 4.25: Sporting results.
 5.0 : Children's hour, conducted by Aunt Sheila.
 6.0 : Dinner music session.
 The Classic Symphony Orchestra, "Raymond Overture" (Thomas).
 Band of the Garde Republicaine, "The Two Pigeons" (Messager). 1—Entrance of Tziganes; 2—Scene and March of the Two Pigeons.
 8.15: Herman Finck's Orchestra, "Schubertiana" (arr. Finck).
 Piano with orchestra—Gil Dech, "It Happened in Monterey" (Rose).
 The Rhythmic Troubadours, "Song of the West" Selection (Youmans).
 8.30: London Theatre Orchestra, "Maid of the Mountains" Selection.
 Rhythmic Troubadours, "Puttin' on the Ritz" Selection (Berlin).
 Rio Novelty Orchestra, "Spaventa—Tango" (Pares).
 8.45: Herman Finck's Orchestra, "Schubertiana" (arr. Finck).
 Piano with orchestra—Gil Dech, "Ragamuffin Romeo" (de Costa).
 Rio Novelty Orchestra, "Mientras Lloro el Tango" (Barabine).
 7.0 : News session.
 8.0 : Chimes. Overture—Band of the Garde Republicaine, "Carmen Entr'acte" (Bizet).
 8.9 : Soprano—Miss Olga Wynne, (a) "Winds in the Trees" (Thomas); (b) "Lovely Spring" (Coener); (c) "When the House is Asleep."
 8.19: Selections—Miss Rita Holmes' Instrumental Quintet, "Yeomen of the Guard" (Sullivan); "When You Come Home" (with vocal effect).
 8.31: Recitals—Miss Ngata Buswell, (a) "Giul'd's Signal" (Harte); (b) "Twenty, Thirty, Forty" (Anon); (c) "Isobel's Pleading" (from "Measure for Measure") (Shakespeare).
 8.42: Bass—Mr. R. B. Macdonald, "Song of the Rover" (Georges); "Sittin' Thinkin'" (Fisher); "Coaling" (Anon).
 8.52: Selections—Instrumental Quintet, "Madame Pompadour" (Fall); "Valse Caprice" (Rubinstein).
 9.1 : Weather report and station announcements.

- 9.8 : Contralto—Miss Irene Hornblow, (a) "Captive Lark" (Ronald); (b) "Has Sorrow Thy Young Days Shaded" (Moore); (c) "Love's Young Dream" (Moore).
 9.13: Banjo selections—Oly Oakley, (a) "Fun on the Wabash"; (b) "Rugby Parade."
 Selection—Instrumental Quintet, "Tiptoe" Selection (Gershwin).
 9.27: Scotch humour—Mr. James A. Paterson, (a) "The Lassie I Left on the Shore" (McFarlane); (b) "I'm Tight Too" (McFarlane); (c) "When the Heather Bells are Blooming" (McFarlane).
 9.38: Organ—Jesse Crawford, (a) "I Get the Blues When it Rains" (Stoddard); (b) "I'll Always Be in Love With You" (Ruby).
 Valse—Instrumental Quintet, "Wyoming" (Williams).
 9.49: Tenor—Mr. J. B. Hamilton, (a) "The Minstrel Boy" (Moore); (b) "Sally in Our Alley" (Carey); (c) "Keep on Hopin'" (Maxwell).
 9.59: March—Band of H.M. Grenadier Guards, "Dunedin" (Alford).
 10.2 : God save the King.

Saturday, January 17

1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, JANUARY 17.

- 3.0 : Selected recorded items.
 3.30: Literary Selection by the Announcer, and further gramophone recordings.
 5.0 : Children's session, conducted by "Cinderella."
 6.0 : Dinner music session.
 Edith Lorand's Orchestra, "Johann Strauss" Fantasia (Strauss).
 Piano and orchestra—Raie da Costa and Orchestra, "When Day is Done" (de Sylva).
 6.15: Hawaiian—David Kalli, "Honolulu March."
 Organ—Leslie Harvey, "Where the Shy Little Violets Grow."
 Dajos Bela Orchestra, "The Grenadiers" (Waldteufel).
 Saxophone—Arnold Brihant, "Fascination" (Bernie).
 6.30: Dajos Bela Orchestra, "Polish Life" (Nedbal).
 Piano and orchestra—Raie da Costa and Orchestra, "Sweetheart I'm Dreaming of You" (Carter).
 Dajos Bela Orchestra, "Dancing Demoiselle" (Fall).
 6.45: Edith Lorand's Orchestra, "Dollar Princess" (Fall).
 Dajos Bela Orchestra, "Casino Tanze" (Gungl).
 7.0 : News and market reports.
 8.0 : Chimes. March—Orchestral Octet, under direction Mr. Harold Baxter, "Blaze of Glory" (Holzmann); Overture, "Russian and Ludmilla" (Glinka).
 8.12: Soprano—Miss Edith Whittaker, (a) "Rich and Rare Were the Gems She Wore" (Trad'l); (b) "The Cuckoo" (Lehmann); (c) "The Fairy Pipers" (Brewer); (d) "The Little Brown Owl" (Sanderson).
 8.22: Dialogue—Will Hay and His Scholars, "The Fourth Form at St. Michael's" (Hay).
 8.30: Siffleur—Mr. C. C. Purdy, (a) "Il Bacio" (Arditi); (b) "La Golondrina" (Northrup); (c) "The Dance of the Sunflower" (MS.).
 8.40: Suite—Orchestral Octet, "Entr'acte Music—Rosamunde" (Schubert).
 8.50: Baritone—Mr. Stan Pritchard, (a) "The Aviator" (Flynn); (b) "The Arrow and the Song" (Balfé); (c) "The Fortune Hunter."
 9.1 : Evening weather forecast and announcements.
 9.3 : Selection—Orchestral Octet, "Gelsha" (Jones); Scena, "In a Persian Garden" (Ketelbey).
 9.17: Novelty—Ernest and Wendy Luks, "Merry Moments at the Piano."
 9.37: Organ—R. E. McPherson, (a) "Ninette" (Maud); (b) "A Japanese Sunset" (Deppen).
 Sidney Gustard, "Cuckoo" (Jonasson); Sandy Macpherson, "I Promise" (Hirsch-Wilhte).
 9.49: Intermezzo—Orchestral Octet, "Wedding of the Rose" (Jessel).
 Valse intermezzo—Octet, "Chanson Bohemienne" (Baldi).
 9.58: Programme of Dance Music.
 Foxtrots—George Posnack and Orchestra, "Punch and Judy."
 Zenith Knights, "Eyes of Blue" (Albin-Costello-Baskette).
 Carl Fenton and His Orchestra, "What is This Thing Called Love" (Cole-Porter).
 Waltz—Cova Cavaliers, "Louisiana Moon" (Walter Donaldson).
 10.12: Foxtrots—New Yorkers, "If I Were King" (Robin).
 Zenith Knights, "Get Yourself a Sweetie" (Meskill).
 Carl Fenton and His Orchestra, "The Stein Song".
 Jack Montrose and His Orchestra, "Valparaiso" (Allen).
 10.24: Vocal—Tommy Weir, "That's When I Learned to Love You" (Costello).
 10.27: Foxtrots—New Yorkers, "Happy Days Are Here Again" (Ager); "Kicking a Hole in the Sky" (Rose); "Fireworks."
 10.36: Waltz—Cova Cavaliers, "Sweet Kentucky Nights" (Herscher).
 Foxtrots—Carl Fenton and His Orchestra, "Won't Cha" (Razaf); "That's When I Learned to Love You" (Costello).
 10.45: Vocal—Tommy Weir, "There's Danger in Your Eyes, Cherie."
 10.48: Foxtrots—New Yorkers, "Let Me Sing and I'm Happy."
 Carl Fenton and His Orchestra, "Night Time is Love Time."
 Zenith Knights, "Hanging on a Garden Gate" (Florito).
 Carl Fenton and His Orchestra, "If He Cared" (Grey).
 11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, JANUARY 17.

- 12.0 : Results of the Wellington Trotting Club's Summer Meeting, interspersed with selected gramophone 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).
- 6.15: Vienna Philharmonic Orchestra, "Dorfschwalben" (Strauss).
International Novelty Quartet, "Teddy Bears Picnic" (Bratton).
Jack Hylton and His Orchestra, "Steppin' Out" (Vaughan).
- 6.30: New Mayfair Orchestra, "Wake Up and Dream" (Porter).
Organ—Jesse Crawford, "Indian Love Call" (Friml).
International Novelty Orchestra, (a) "To Die Dreaming"; (b) "Four Little Farms."
- 6.45: Jack Hylton's Orchestra, "Old-time Songs."
International Novelty Orchestra, "The Skaters" (Waldteufel).
Jack Hylton's Orchestra, "Lonesome Little Doll" (Cowan).
- 7.0 : News session, market reports and sports results.
- 8.0 : Chimes. Overture—Salon Orchestra (Conductor, Mr. M. T. Dixon), "Squire's Popular Songs" (arrgd. Baynes).
Bells—Mr. L. W. Probert and Salon Orchestra, "Bells Across the Meadow" (Ketelbey).
- 8.15: Tenor—Mr. Frank Bryant, "Deep River" (Burleigh).
Quartet—Melodie Four, "Doan' Yer Cry, Ma Honey" (Noll).
Bass—Mr. W. W. Marshall, "Old Folks at Home" (Foster).
- 8.26: Banjo duo—Mrs. Mildred Kenny and Mr. J. Jackson, (a) "Beautiful Star" (Saylor); (b) "Nancy Till" (Traditional); (c) "Nellie Bly" (Foster); (d) "So Early in the Morning" (Traditional).
- 8.38: Lecture-recital—"Original Jubilee Singers," by Mrs. Daisy Basham, assisted by the Melodie Four.
- 8.53: Selection—Band of H.M. Grenadier Guards, "Martial Moments."
- 9.1 : Weather report and station notices.
- 9.3 : Bass—Mr. W. W. Marshall, "Whose Dat a-Calling so Sweetly."
Quartet—Melodie Four, "Kentucky Babe" (Giebel).
Tenor—Mr. Frank Bryant, "Carry Me Back to Old Virginny" (Bland).
- 9.13: Selections—Salon Orchestra, (a) "Nautical Scenes" (Fletcher); (b) "Magic of Love" (Varies).
- 9.28: Continuation of lecture-recital on "Original Jubilee Singers" by Mrs. Daisy Basham and the Melodie Four.
- 9.44: Selection—Salon Orchestra, "Tina" (Rubens-Wood).
- 9.59: Programme of dance music.
Foxtrots—Victor Arden, Phil Ohman and Their Orchestra, "How Am I to Know?" (Parker-King).
New Mayfair Orchestra, "Mickey Mouse" (Carlton).
Waring's Pennsylvanians, "Alma Mammy" (Marion Whiting).
Jack Hylton's Orchestra, "House on the Hilltop" (Mayer).
Leo Reisman's Orchestra, "At Close of Day" (Klages).
- 10.15: Vocal—Mildred Hunt, "Sleepy Valley" (Sterling).
Foxtrots—Bernie Cummins and His Hotel Orchestra, "When a Woman Loves a Man" (Rose).
Nat Shilkret's Orchestra, "Georgia Pines" (Trent-de Rose).
Waltz—Irving Aaronson and His Commanders, "The Land of Going to Be" (Goetz).
- 10.27: Foxtrots—Arcadians Dance Orchestra, "If I Had My Way" (Wagner).
Ted Weems' Orchestra, "Miss Wonderful" (Bryan).
The Rhythmic Eight, "Welcome Home" (Clarke-Akst).
Vocal—Mildred Hunt, "S'posin'" (Razaf).
- 10.39: Foxtrots—Leo Reisman's Orchestra, "Charming" (Grey).
Henry Busse's Orchestra, "I Came to You" (Conrad).
Waltz—Leo Reisman's Orchestra, "Shepherd's Serenade" (Grey).
- 10.48: Foxtrots—New Mayfair Dance Orchestra, "The Doll's House" (Butler).
Leo Reisman's Orchestra, "A Year Ago To-day" (Jolson).
Jack Hylton's Orchestra, "Dreamy Honolulu."
Bernie Cummins and His Hotel Orchestra, "Cooking Breakfast for the One I Love" (Rose).
- 11.0 : Sporting summary.
- 11.10: God save the King.

4YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, JAN. 17.

- 3.0 : Gramophone recital.
- 4.25 : Sports results.
- 5.0 : Children's Hour, conducted by Aunt Pat.
- 6.0 : Dinner music session.
Selection—Edith Lorand's Orchestra, "The Vagabond King" (Friml).
Waltz—Dajos Bela Orchestra, "The Swallows" (Strauss).
- 6.15: Selection—Frank Westfield's Orchestra, "Chu Chin Chow" (Norton).
Organ—Leslie Harvey, "Absent" (Metcalfe).
- 6.30: Dajos Bela Orchestra, (a) "Oh, Spring, How Fair Thou Art" (Lincke).
(b) "Songs D'Amour Apres Le Bal" (Czibulka): "Humoresque."
- 6.45: Dorsey Bros. Orchestra, "Was it a Dream" (Coslow).
Leslie Harvey, "Until" (Sanderson).
Dajos Bela Orchestra, "Faust" (Gounod).
- 7.0 : News session.
- 7.30: Sports results.
- 8.0 : Chimes. Overture—Columbia Symphony Orchestra, "Faust" Selection.
- 8.8 : Popular songs at the piano with banjo—Rose and Thistle Duo, (a) "My Cutie's Due" (Robin); (b) "Just Can't Be Bothered With Me" (Kahn).
- 8.14: Selection—Studio Octet (Harold Beck Conductor), "Maid of the Mountains" (Fraser-Simson).
- 8.28: Humour—Mr. J. J. Flewellen, "Do Film Actresses Make the Best Husband" (Anon.).
- 8.32: Yodel songs—Edelweiss Yodlers, (a) "S'Malche" (Milking) (Krenger), (b) "Saanen" (Skimming) (trdtl.).

- 8.38: Baritone—Mr. Leslie A. Stewart, (a) "An Emblem" (Thomson), (b) "A Little Love, a Little Kiss" (Silesu).
- 8.44: Steel Guitars and Ukulele—Blaine Moody's Hawaiian Quartet, with vocal refrains by Elaine Moody, (a) "Lucky Me, Lovable You" (Yellen-Ager), (b) "Roselani" (Klickmann), (c) "Under a Texas Moon" (Perkins).
- 8.54: Selections—Band of H.M. Grenadier Guards, (a) "Hiawatha" (Moret), (b) "Liberty Bell" (Souza).
- 9.0 : Weather report and station notices.
- 9.2 : Instrumental—Studio Octet, "Hungarian Lustspiel" (Kela Bela).
- 9.12: Popular songs at the piano with banjo—Rose and Thistle Duo, (a) "Honolulu Song Bird" (Leslie), (b) "Little Green Valley."
- 9.18: Foxtrot—Studio Octet, "Goblin Blues" (Monte Carlo).
- 9.22: Humour—Mr. J. J. Flewellen, (a) "Borrowing a Match" (Leacock), (b) "A Husband for Every Wife" (MS.).
- 9.28: Saxophone duet—Rudy Wiedoeft and Arnold Brilhart, "La Colondrina." (trdtl.).
- 9.31: Baritone—Mr. Leslie A. Stewart, (a) "I Love a Little Cottage" (O'Hara), (b) "Pal of My Dreams" (Roat).
- 9.36: Steel guitars and ukulele—Blaine Moody's Hawaiian Quartet, with vocal refrains by Elaine Moody, (a) "Just a Melody" (Robison), (b) "Mairie Girl" (Klickman), (c) "The Kerb-Step."
- 9.45: Comedy vocal—G. H. Elliott, (a) "Plain Chocolate" (Lutzen), (b) "Sentimental Lake" (Lutzen).
- 9.51: Foxtrot—Studio Octet, (a) "Indian Dawn" (Zamecnik), valse, (b) "Dolores" (Waldteufel).
- 10.1 : Dance music until 11 p.m.
Foxtrots—Tom Gerunovich and His Roof Garden Orchestra, "Am I Blue?" (Clarke-Akst).
Carl Fenton and His Orchestra, "Laughing Marionette."
Roger Wolfe Kahn and His Orchestra, "Twas Not So Long Ago" (Hammerstein 2nd. Kern).
Ray Miller and His Orchestra, "That's Where You Come In."
- 10.12: Roy Ingraham and His Orchestra, "Like a Breath of Springtime."
Carl Fenton and His Orchestra, "Sweetness" (Miller-Lombardo).
Roger Wolfe Kahn and His Orchestra, "Don't Ever Leave Me."
Roy Ingraham's Orchestra, "Deep in the Arms of Love" (Davis).
- 10.24: Vocal—Charles King, "Happy Days Are Here Again" (Ager).
- 10.27: Foxtrots—Roger Wolfe Kahn and His Orchestra, "Why Was I Born."
Ray Miller and His Orchestra, "In a Kitchenette" (Dubin).
Roger Wolfe Kahn and His Orchestra, "Here I am!"
Ray Miller's Orchestra, "Ain't You Baby?" (Yellen).
Tom Gerunovich and His Orchestra, "Let Me Have My Dreams" (Clarke).
Waltz—Jesse Stafford and His Orchestra, "A Bundle of Old Love Letters" (Freed).
- 10.45: Vocal—June Pursell, "Never Say Die" (Robin-Chase).
- 10.48: Foxtrots—Jesse Stafford and His Orchestra, "Only Love is Real."
Vocal—June Pursell, "The Album of My Dreams" (Davis).
Foxtrots—Jesse Stafford and His Orchestra, "Should I?" (Freed).
Henry Lange and His Baker Hotel Orchestra, "Somebody Loves Me" (MacDonald).
- 11.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, JANUARY 17.

- 3.0 : Chimes. Selected gramophone recordings.
- 5.0 : Children's session, conducted by Aunt Anita and Uncle Sambo.
- 6.0 : Dinner music session.
Charles Ancliffe's Orchestra, "Ancliffe Waltzes."
J. H. Squire's Celeste Octet, "Twilight on the Waters" (Squire).
Gil Dech Ensemble, "Italian Nights" (Roberts).
- 6.15: Regal Cinema Orchestra, "Sally Selection" (Burke).
Organ—Quentin Maclean, "Lily of Laguna" (Stuart).
J. H. Squire's Celeste Octet, "Minuet Sicilienne" (Squire-Hart).
- 6.30: Debroy Somers' Band, "Mister Cinders' Selection" (Ellis).
J. H. Squire's Celeste Octet, "The Picanninnies' Picnic" (Squire).
Organ—Quentin Maclean, "Little Dolly Daydream" (Stuart).
- 6.43: Albert W. Ketelbey's Concert Orchestra, "The Clock and the Dresden Figures" (Ketelbey).
J. H. Squire's Celeste Octet, "Minuet in D" (Mozart).
Albert W. Ketelbey's Concert Orchestra, "Wedgwood Blue."
Gil Dech Ensemble, "Valse Parisienne" (Roberts).
- 7.0 : News session.
- 8.0 : Chimes. Instrumental programme by Kenz Orpheans, entitled "Modern Transcription of the Classics." Two Novelities—Kenz Orpheans, "Chopinata" (Doucet); "Dreams of Love" (Briegel).
- 8.10: Baritone—Mr. R. W. Fox, (a) "Because" (d'Hardelot); (b) "I Be Hopin' You Remember" (Clarke).
- 8.16: Sketch—Helena Millars, (a) "Our Lizzie Goes Shopping" (Millars); (b) "Our Lizzie Loses Her Handbag."
- 8.22: Novelty—Kenz Orpheans, "Fountainette" (Nussbaum).
- 8.29: Soprano—Mrs. P. Marshall, "Mother Machree" (Ball).
- 8.32: Piano—Mr. B. Finlayson, "Florella" (Nussbaum).
- 8.36: Bass—Mr. W. B. Lambert, (a) "Sons of the Sea" (Coleridge-Taylor); (b) "Where My Caravan has Rested" (Lohr).
- 8.42: Novelty—Kenz Orpheans, "Aida" (arrgd. Briegel).
- 8.46: Contralto—Miss E. B. Clarke, (a) "The Sign Post" (Schubert); (b) "By the Waters of Minnetonka" (Lienance).
- 8.53: Organ—G. T. Pattman, "Andantino" (Lemaire).
- 8.57: Tenor—Mr. W. Harrison, "Come into the Garden, Maud" (Balfe).
- 9.0 : Weather report.

- 9.2 : Selection—J. H. Squire's Celeste Octet, "Peter Pan" (Crook).
 9.10: Baritone—Mr. R. W. Fox, "Maire, My Girl" (Aitken).
 9.13: Novelty—Kenz Orpheans, "Rhapsodie Russe" (Nussbaum).
 9.20: Soprano—Mrs. P. Marshall, (a) "Until" (Sanderson); (b) "In an Old-Fashioned Town" (Squire).
 9.26: Descriptive piano solo—Jack Lumsdaine, "Round the World with Annie Laurie."
 9.32: Bass—Mr. W. B. Lambert, "Asleep in the Deep" (Petrie).
 9.35: Novelty—Kenz Orpheans, (a) "Maritana" (Briegel); (b) "Dance of the Paper Dolls" (Tucker).
 9.43: Tenor—Mr. W. Harrison, (a) "String of Pearls" (Phillips); (b) "Mary"
 9.49: Novelty—Kenz Orpheans, "Martha" (Briegel).
 Banjo—J. S. McNeil, "Love's Old Sweet Song" (Molloy).
 9.57: Contralto—Miss E. B. Clarke, "The Linden Tree" (Schubert).
 10.0 : Dance session.
 Foxtrots—Broadway Players, "I'm Following You" (Dreyer).
 Carl Fenton and His Orchestra, "Bless Her Little Heart."
 Broadway Players, "Redhead" (Embry).
 Carl Fenton and His Orchestra, "That Wonderful Something is Love" (Goodwin).
 10.12: Waltz—Broadway Players, "All Day Long" (Cross).
 Foxtrots—Cova Cavaliers, "Mona" (Conrad).
 Carl Fenton and His Orchestra, "A Little Kiss Each Morning"
 10.21: Vocal—F. Luther and C. Robinson, "Sweet Virginia" (C. Robinson).
 10.24: Foxtrots—Cova Cavaliers, "How Long Must I Wait for You?"
 New Yorkers, "Oriental Moonlight" (Seamen).
 Carl Fenton's Orchestra, "Hello, Little Sweetheart."
 Fletcher's Eli Prom. Trotters, "That's Where You're Wrong."
 10.36: Waltz—Broadway Players, "Shepherd's Serenade" (Grey).
 Foxtrots—Zenith Knights, "Congratulations" (Pinkard).
 Fletcher's Eli Prom. Trotters, "I Like to do Things for You."
 10.45: Vocal—F. Luther and C. Robinson, "Down on the Old Plantation."
 10.48: Foxtrots—Jack Montrose's Orchestra, "I'm So Tired of it All" (Hanley).
 Broadway Players, "Should I Be Sorry?" (Kapp); "With You" (Berlin).
 New Yorkers, "Under a Texas Moon" (Ray Perkins).
 11.0 : God save the King.

Sunday, January 19

IYA, AUCKLAND (900 KILOCYCLES)—SUNDAY, JANUARY 18.

- 3.0 : Selected gramophone recordings.
 3.30: Literary selection by the announcer.
 6.0 : Children's song service, conducted by "Uncle Bert."
 6.55: Relay of divine service from Pitt Street Methodist Church. Preacher, Rev. C. H. Laws, B.A., B.D. Organist and choirmaster, Professor W. A. Moor.
 8.30: (approx.) Relay of Municipal Band Concert from Albert Park, under conductorship of Mr. George Buckley.
 9.30: (approx.) God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JANUARY 18.

- 3.0 to 4.30: Selected gramophone records.
 6.0 : Children's Song Service, conducted by Uncle George, assisted by the Children's Choir from the Island Bay Baptist Church.
 7.0 : Relay of the Evening Service of the Trinity Methodist Church, Wellington South. Preacher: Rev. T. W. Veale. Choirmaster: Mr. W. McLellan. Organist: Miss Lillian Thawley, L.A.B.
 8.20: (Approx.)—Studio Concert by the Band of the Wellington Division of the Royal Naval Volunteer Reserve (by permission of the Commanding Officer), and 2YA Artists.
 Hymn—Band (Conductor, Petty Officer H. Baker), "Nearer My God to Thee" (Mason); March, "Major and Minor" (Southwell).
 Bass-baritone—Mr. George Neel, (a) "Within These Sacred Bowers" (Mozart); (b) "The Faithless Men" (Halevy).
 Selection—Debroy Somers Band, "Hungarian Medley" (arr. Somers).
 Air varie—Band, "Adeste Fideles" (Round).
 Soprano—Miss Kathleen Ferris, "Villanelle" (del Acqua).
 Waltz—Band, "Woodland Whispers" (Round).
 Contralto—Miss Belle Renaut, (a) "I Will Not Chide" (Schumann); (b) "The Nut Tree" (Schumann).
 Selection—Band, "The Bohemian Girl" (Balfe).
 Weather report and station notices.
 Organ—Marcel Dupre, "Prelude and Fugue in G Major" (Bach).
 Bass-baritone—Mr. George Neel, "I Will Not Grieve" (Schumann).
 March—Band, "Mount Washington" (Southwell).
 Soprano—Miss Kathleen Ferris, "On Mighty Pens" (Haydn).
 Choral—Don Cossacks' Choir, (a) "First Psalm of David" (Trad'l); (b) "God, Hear My Prayer" (Archangelsky).
 Overture—Band, "Golden Cross" (Greenwood).
 Contralto—Miss Belle Renaut, "By the Waters of Babylon" (Dvorak).
 March—Band, "On the Warpath" (Bailey).
 God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JANUARY 18.

- 3.0 : Gramophone recital.
 5.30: Children's Song Service by children of Church of England Sunday Schools.

- 6.15: Chimes from studio.
 6.30: Musical recordings from studio.
 7.0 : Relay of evening service from Holy Trinity (Anglican) Church, Avon-side. Preacher: Rev. H. E. K. Fry, M.A. Organist and Choirmaster: Mr. Arthur Lilly, A.R.C.O.
 8.15 (approx.): Selection—Classic Symphony Orchestra, "Classical Memories" (arr. Ewing).
 'Cello—W. H. Squire, "Sicilienne" (Faure).
 8.28: Mezzo-contralto—Mrs. Graham Jamieson, (a) "God My Father" (Theodor Deubois); (b) "I Will Await Thee By The Blue River" (Coningsby Clarke); (c) "Ah, Thine Eyes of Azure" (Lassen).
 8.32: Piano—Miss Merle Miller, (a) "Prelude in G Minor" (Rachmanoff); (b) "Waltz in A Minor" (Levitzi); (c) "Etude in E Flat Major."
 8.40: Baritone—Mr. Olive Hindle, (a) "How Many Hired Servants" (Sullivan) (from "The Prodigal Son"); (b) "Beyond the Dawn" (Sanderson); (c) "Oh, Could I but Express in Song" (Malashkin); (d) "Water Boy" (arr. Avery Robinson).
 8.50: Flute—Mr. A. E. Hutton, (a) "Serenata" (Braga); (b) "Berceuse De Jocelyn" (Godard).
 9.0 : Weather report and station notices.
 9.2 : Organ—Terence Casey, "Devotion" (Ketelbey).
 9.5 : Soprano—Miss Addie Campbell, (a) "I Hear a Thrush at Eve" (Cadman); (b) "Serenade" (Gounod); (c) "Solveig's Song" (Grieg).
 9.15: Cornet—Mr. Norman G. Goffin, (a) "Stars in a Velvety Sky" (Clarke); (b) "Melody in F" (Rubinstein).
 9.25: Suite—St. Hilda Colliery Band, "Ballet Egyptien" (Luigini).
 God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JANUARY 18.

- 3.0 : Selected recordings.
 5.30: Children's hour, conducted by Big Brother Bill.
 6.15: Selected recordings.
 6.30: Relay of Evening Service from Hanover Street Baptist Church, Dunedin. Preacher: Rev. E. S. Tuckwell, B.A. Choirmaster: Mr. H. P. Desmoulin.
 7.45: Selected recordings.
 8.15: Relay of concert programme from 3YA, Christchurch.
 9.40: (Approx.)—God save the King.

2YB, NEW PLYMOUTH (1230 KILOCYCLES)—SUNDAY, JANUARY 18.

- 6.0 : Children's service.
 8.15: Studio concert.

1931 Comes to England and America

Mr. Sellens, too, Listens-in

(Continued from page 2.)

and the Metropolitan Hotel till 7.30 p.m.

Los Angeles was visited next, the music being from the Hotel Los Angeles, where many of the world's famous movie stars were congregated.

San Francisco, the city of the Golden Gate, was reached at 7.55 p.m. The Mission Bells of California rang in the New Year at 8 p.m., N.Z. time. These famous bells have rung in the New Year at San Francisco for nearly 200 years.

Dance music followed from different parts of the city, but local interference made listening impossible.

Reception from W2XAF was R8-9 at 4.30 p.m., increasing to R9 by 5 p.m., remaining at this volume till after 8 p.m.

New Year Good-will Talks.

ON January 2 (Friday) at 8.45 a.m., W2XAF was heard again with "good-will messages" from various representatives of foreign countries. Each person said a few words in their own language, which was translated into English and repeated by the station announcer. New Zealand's representative was a Mr. Caverton (this is how it sounded), who spoke in Maori, concluding his talk with Kia Ora. There

was a background of music all through these talks. Volume was R9 at first, going off a little later on. Reception was a little gushy, making some of the talk difficult to follow. On the average it was about 90 per cent. readable. W2XAD were also transmitting the same programme, but were only about R4.

G5SW at Midnight.

NEW Year's Eve being a late night, I waited for their 12.30 a.m. transmission. This commenced with the striking of the half-hour by Big Ben, followed by the station call, etc. (G5 SW), with the following day's programme. An organ recital was heard for the first half-hour, with orchestral music following.

Reception at first was fairly steady at R9, but after awhile became more gushy, with Morse interference. Morning reception from 5SW is still not worth while.

KNOW the time all over the world with a

DX Clock.

Printed on Heavy White Paper.

Posted in Cardboard Tube.

9d. Each.

Box 1032, Wellington.

that the work did not get a hearing. But concession and compromise were foreign to Wagner's nature, and though he had, as he said himself, "a feeling of complete isolation," he worked steadily on along his chosen path.

HIS early life is of interest. Richard Wagner was the youngest of a family of nine children. His father, a man of good education, occupied some minor official post in connection with the police. He spent much of his leisure in the study of poetry and showed great interest in amateur theatricals. However, he died a few months after Richard's birth. Frau Wagner left thus with a large family and with little means, could hardly do better than marry again, which she did after two years.

Her second husband, Ludwig Geyer, was a writer of plays and an actor at the Dresden theatre, and to Dresden, therefore, the Wagners removed. Geyer proved an excellent stepfather; and though he, too, died when Richard was only ten, it is probable that the early association with him added strength to the already strong theatrical tendencies which were present in the Wagner family. He made a great pet of little Richard, who loved to attend rehearsals with him, and afterwards to imitate the acting and to make up plays of his own.

Richard first went to school in Dresden, and evinced a great liking for Greek. He had also some piano lessons, and he worshipped as a hero the musician Weber, whom he often saw. We read that he tried to play "with fearful fingering" the overture to Weber's "Der Freischütz," but he was never more than an indifferent pianist. Someone has said "Wagner could never fondle a piano without making it howl." Music to him was thus a secondary consideration, but he was passionately fond of plays and poetry, and used to write both.

WHEN he was eleven his poem on the death of a schoolfellow was published as being the best the school could produce. Fired with this success, he promptly determined to become a poet—a characteristic instance of his impetuous nature—and was so much impressed by Shakespeare's dramas that he spent nearly two years writing a tragedy which was a mixture, more or less, of "Hamlet," "King Lear," and "Romeo and Juliet." This production was a curious affair. Forty-two persons were killed, one after the other, long before the end, that when he came to the last act he was obliged to bring back some of the characters as ghosts, in order to finish off the play and have anybody on the stage at all!

When Richard was 15 the Wagners moved back to Leipzig, and he used to frequent the Gewandhaus concerts. Here he heard for the first time a Beethoven symphony, and, with his customary impulsiveness, he at once determined to become a musician. He set about studying Beethoven's works in dead earnest, and knew them all familiarly before he was 20. Early in his teens he heard Beethoven's music to Goethe's poem "Egmont." This inspired him to write incidental music for his own tremendous tragedy, mentioned above. This was actually performed, much to the bewilderment of the audience, who were amused at the persistent thumping of the big bass drum.

The Life Story of Richard Wagner

(Continued from page 3.)

Wagner now entered the University, and here he worked chiefly at literature, specialising in the old folk-stories and legends. Upon these he afterwards founded the stories of his operas. These are most interesting, and remind one somewhat of our own "Tales of King Arthur and his Knights of the Round Table." Afterwards he studied music with an excellent musician, and soon after he obtained an engagement as conductor at Konigsberg. The attraction here was one of the actresses, Minna Planer, with whom he had fallen in love some time before. She is described variously as "of pleasing appearance" and "as pretty as a picture, but with a sober, unimaginative soul."

THE wedding followed, but their life together was not happy. Wagner was struggling with poverty, and beaten down by disappointed hopes, and later on, as his genius developed and expanded, he found he could not live in agreement with Minna, and a separation was the ultimate result. Biographers have nothing worse to say of her than that she failed to recognise her husband's genius; but she was certainly not alone in this respect; and it must be remembered to her credit that she suffered bravely and uncomplainingly the hardships which beset her husband during the first years of their marriage. It is recorded that she

even pawned her jewels under some domestic distress.

Wagner himself used to recount stories of his wife's self-denial, and of the cheerfulness with which she, the pretty actress of former days, "cooked what meals there were to cook and scrubbed what clothes there were to scrub." One cannot help sympathising with Minna Wagner, thrown out at last upon a cold world, to live isolated, and to die with a shadow upon her name as a wife.

But to return to the year of his marriage, when he was 23. The young couple went to Riga, on the Baltic Sea, where he had a poorly-paid post at the theatre. He had, however, made up his mind to get to Paris as soon as possible. He was composing his opera "Rienzi," based upon Bulwer Lytton's novel, and he felt that it was the very thing for the Parisian temperament. So, after three years, he and his wife started for Paris on a sailing vessel, by way of London.

The voyage lasted nearly a month, and they passed through three heavy storms. These recalled to his mind from among his studies of ancient legends the weird story of the "Flying Dutchman," who for his sins was condemned to sail the seas for ever, only coming ashore once in every seven years in the hope of finding a woman whose true love should save him: The sailors affirmed this legend to be true, and looked fearfully for the phantom

ship, for to see this meant shipwreck. He afterwards wrote his opera "The Flying Dutchman" as a result of this stormy voyage.

FOR three weary years Wagner and his wife lived in Paris, on the verge of starvation. No one would produce his operas, and in despair they went to Dresden in 1842. It was here that his opera "Rienzi" was produced. It was very much in the popular style, and delighted the audience, and Wagner became musical director.

His next opera, "The Flying Dutchman," did not please so much, for it was not so showy and the people thought the music strange. Still, some musicians praised it. "Tannhauser," which followed, pleased neither his audiences nor the musicians. They said the play was too sad and the music ugly; and were annoyed because the hero and heroine did not marry and live happily ever afterward. Though almost despairing of ever inducing the public to understand him, Wagner worked on, and by 1848 had completed "Lohengrin."

Meanwhile the political troubles of the country were occupying the attention of the people. The poor were crying out against the oppressions of the rich, and revolutionary clubs were being formed everywhere. Wagner hotly espoused the cause of the revolutionaries, made red-hot republican speeches, and even, it is said, fought at the barricades. A warrant for his arrest was issued, but he managed to escape, mainly by the help of Liszt, ever his most loyal friend.

He got safely away to Paris, and for the next ten years lived in Switzerland, writing many little books about music and politics, and working hard at the greatest of all his musical works, "The Ring." This comprises the four music dramas—"The Rheingold," "The Valkyrie," "Siegfried," and "The Dusk of the Gods." Meanwhile Liszt was producing, in the best style, Wagner's other operas, and the German people gradually came to understand and to like them. "Lohengrin" was one of these works, and is to-day one of the most popular. Of course Wagner himself, being an exile, could not hear this beautiful work performed. In fact he did not do so for eleven years, till 1861, when his sentence of banishment was withdrawn and he returned to Germany.

AFTER his return from exile Wagner became almost desperate with the struggle against opposition and financial difficulties. In fact he was at the end of his courage and endurance

ARE YOUR HANDS TIED?

Are you bound down because you have never learned to do any one thing well? To thousands of men like you—hands tied, but eager to break free—I.C.S. training has brought success. No matter where you live, the I.C.S. will come to you. No matter what your handicaps, or how small your means, we have a plan to meet your circumstances. Without cost or obligation let us prove that we can help you to get a better job and a bigger salary. Write or call.

ELECTRICAL WIREMAN,
MECHANICAL DRAUGHTSMAN,
WINDOW DRESSING,
CARPENTRY,
RADIO OPERATOR,
Hundreds of Courses to choose from.

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

1832 WAKEFIELD ST., WELLINGTON

To an Old Set

Friend, when I dwell upon your faded beauty,
Your mottled panel and your splintered door,
I think of one who nobly did his duty
And helped to cheer me, back in '24.
I do not join with those who so defame you
For clumsiness and ugliness combined,
Nay, friend o' mine, I neither chide nor blame you—
I am not so unkind.

A time there was when envious old stagers
Beholding in amaze your polish high
Indulged among themselves in private wagers,
Deciding who might have you should I die.
I recollect one relative displaying
An envious glance, a stealthy sidelong look,
What time he wondered how much I'd been paying—
A mental note he took!

And now, old friend, good-bye—those days are ended.
For you and I must part, sad to relate;
A lot of things have lately been invented
And put you very sadly out of date.
No more will your emitters glow with glory,
No more your worn-out batteries be tapped,
For soon you'll reach the finish to your story—
In short, you're to be scrapped!

—C.P.P. (in "Wireless Magazine.")

when the generosity of that tragically pathetic monarch, Ludwig II of Bavaria, saved Wagner to the world, for he was contemplating suicide. Ludwig was passionately fond of Wagner's music, and he offered the composer a substantial income and a house in the vicinity of his palace.

Though Wagner was thus relieved of financial strain and was able to finish his greatest music-drama, "The Ring of the Niebelungen," yet storm and stress accompanied him to the end. His great drama, "Tristan and Isolde," described as "the greatest expression of passionate love in all music," was inspired by his love for Madame Wesendonck; and when produced at Munich in 1865 was the first undoubtedly popular success which Wagner had had.

Then followed "The Meistersingers," which, like "Tristan," was produced by the great Von Bulow, whose divorced wife, Cosima, a daughter of Liszt, was presently to become Frau Wagner. What a bitter joke the Fates played on Von Bulow! For him, Wagner had almost been a god!

However, he magnanimously forgave him, and the marriage of Wagner and Cosima took place in 1870. Cosima made Wagner the study of her life, and devoted herself to him with a sublime selflessness. She understood every turn of his mind, and her unobtrusive sympathy, her intelligent advice, criticism and suggestion were unspeakably helpful to such a mind as Wagner's.

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.

WIFE delighted husband in Christchurch recently by reducing weight 20lb in six weeks with Youth-O-Form. 6/6 posted. A. C. Timms, Chemist, Pahiatua.

SHORT-WAVE Adaptors, "Aero," undoubtedly the best obtainable. Brand new, shielded, A.C. or D.C. Retail at £6/10/-, will take £3/15/- cash. McLeod & Svendsen, Ltd., Feilding.

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

WAIST-LINE reduced by taking Youth-O-Form Capsules. 20lb. reduction in six weeks. Absolutely harmless. 6/6 posted. A. C. Timms, Chemist, Pahiatua.

B.T.H. Rice-Kellog Power Speaker, complete with Power Pack and beautiful cabinet, suitable large hall. In perfect order. No reasonable offer refused. Original price £75. McLeod & Svendsen, Ltd., Feilding.

EVERY Radio enthusiast should have **JOHNS, LTD.'s** wonderful Radio Catalogue. Everything for Radio. Post free. Johns, Ltd., Chancery Street, Auckland.

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

OBESITY! Men as well as women can slenderise by taking Youth-O-Form Capsules. 6/6 posted. A. C. Timms, Chemist, Pahiatua.

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

THE HOUR'S PHILOSOPHY

WITH depression hanging o'er us all our spirits we must rally,

We must sacrifice, economise, and help the poor as well.

Though our incomes with the outgo seem impossible to tally.

We'll debar all gloomy faces and expressions such as "H-!"

After retrospecting golden days our present lot we vision,

And sum it up as quite the worst of any that we know; But, my friend, remember hospitals, asylums, slums and prisons!

There are greater Waterloos than ours where'er we chance to go!

Here the pauper's wife confirms me, with her little ones in tatters;

They are hungry and surround her with pale cheeks and wistful eyes.

In a country like New Zealand these are grave, important matters,

We must further schemes of charity. Our duty therein lies.

—S.E.F.-J.

WAGNER could not have been easy to live with. To the outside world he was arrogant and contemptuous. He spared no one's feelings, was vain of his own powers, and had few of those social qualities which go to the making of friends and the conciliation of enemies. For the public, even the applauding public, he had little consideration, and sometimes scant courtesy. He was selfish too, and protested that the world should give him a gratuitous living "without asking anything in return beyond what I am actually doing."

When the world declined the honour he threatened to buy a pistol and put an end to his life. He certainly required plenty of money, for he had the most expensive tastes. He said himself: "By nature I am luxurious and extravagant. I cannot sleep on straw or drink bad whisky. I must be coaxed in one way or another if my mind is to accomplish the terribly difficult task of creating a non-existent world." He employed a high-priced Viennese dressmaker to make the rich garments without which he felt he could not compose.

There is a story about his wanting some flamingo feathers before he could obtain sufficient inspiration to finish the flower-maiden scene in "Parsifal." Any caller who had not seen him before was likely to suffer a mild shock; for, on entering the room where his visitor was seated, Wagner would throw the door wide open before him, and would stand for a moment on the threshold, a curious mediaeval figure framed in the doorway. The mystified visitor, rising from his seat, would be-

hold a man richly clad in a costume of velvet and satin, like those of the early Tudor period, and wearing a bonnet such as is seen in the portraits of Henry VI. Such was his composing costume.

One biographer says: "He made a veritable rainbow of himself, and even wore many-coloured trousers." Alexander Dumas, calling upon him, made some good-humoured remark about his own ignorance of music, but his pleasantries were listened to with such a smileless stolidity that he went home in a huff and wrote a contemptuous protest against what he called Wagnerian din. On the day before this protest was printed, Wagner returned Dumas's visit, and was kept waiting half an hour in an ante-room. Then the author of "The Three Musketeers" marched in, superbly attired in a plumed helmet, a cork lifebelt, and a flowered dressing-gown. "Excuse me for appearing in my working dress," he said majestically. "Half my ideas are lodged in this helmet, and the other half in a pair of jackboots which I put on to compose love scenes!"

However, the individual is a law unto himself in matters of this kind; and if Wagner had not been able to indulge his expensive tastes we should probably have been without some of his greatest music-dramas to-day. Still, we cannot help reflecting how little luxury Beethoven or Schubert could afford themselves.

WHEN Wagner was 69 he composed his last great work, "Parsifal," a kind of sacred opera, considered by many to be the most beautiful of all

his works. For some years it was only allowed to be performed at the Festival Theatre at Bayreuth, which had been specially designed and built for the ideal presentation of Wagner's operas. It was originally planned by Wagner in order that the wonderful cycle "The Ring of the Nibelungen" might be presented in a festival for three days, with one preliminary evening. It was the first theatre designed with the sunken orchestra, invisible to the audience; and the magical effect of such music as the prelude to the "Rhine-gold," rising as it were from the infinite, can only be realised by actual experience.

In 1883 Wagner died, quite suddenly, at Venice, where he and his beloved wife Cosima, with their son Siegfried, were spending a holiday. He was buried in the garden of his own house at Bayreuth. His wife cut off her long blonde hair, which he had so much admired, and buried it with him as a final sacrifice.

Topical Notes

(By "Switch.")

THE New Plymouth station, 2YB, has been available at increased volume in Wellington of late, and fading has not been so noticeable. The tone is first-rate, and there is an unusual clarity in both music and speech. Parasitic, or, more aptly, intrusive electrical noises, which infest Wellington, have been increasing around the shorter broadcast wavelengths during the past month, and 2YB, New Plymouth, has this additional drawback to overcome.

AFTER years of research, American radio engineers have evolved a transmitter which is probably without parallel in the radio world. It is to be used by station W2XAF, one of the group of short-wave stations of WGY, for communication with the rest of the world. A single transmitter has been built so that three musical programmes can be simultaneously broadcast without interference. Six independent and non-interfering voice channels are available. In other words, should occasion demand, addresses by six different people could be transmitted by the same equipment, on six different frequencies.

Be Master of Yourself!

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

YOUR BAGGAGE
INSURED against loss
or damage from any cause

The premium is moderate
the cover is **WORLDWIDE**

Offices in all principal towns
and cities throughout New Zealand

NORTH BRITISH & MERCANTILE
INSURANCE CO. LTD.

KNOW the time all over the world with a

DX Clock.

Printed on Heavy White Paper.
Posted in Cardboard Tube.

9d. Each.
Box 1032, Wellington.

IF you want to look really smart wear a tailor-made suit. This year they are most fashionable in shades of nigger-brown and dark oatmeal, and they should be worn with darker coloured shoes and bags to match. The gloves and stockings should match the suit.

TO make starch always seems an effort, so why use it when there is a labour-saving substitute? Would you like to know the secret? Well, I'll tell you what I do. I use a dessert-spoonful of methylated spirits to each quart of water, and I use it in the last rinse only. This does more than stiffen; it also gives a gloss and brightens the colour. Try it next time instead of starch, and give your opinion of it.

THE latest eccentricity of a St. James' restaurant in London is green beer, the colour of creme-de-menthe (says a London daily). Surprisingly enough, this exotic liquid comes from an old Scottish brewing firm in Edinburgh than which nothing could be more orthodox. It tastes exactly the same as ordinary beer, and is, I believe, dyed with red cabbage! I suppose that, conversely, if you used green cabbage you would get red beer!

A DELIGHTFUL New Year or birthday present which can easily be made at home is a picnic basket. Buy a luncheon cane basket which fastens with a rod, and paint this blue, or any colour you prefer, inside and out. Then buy for it pretty paper napkins to match, and cardboard tumblers and plates. Then ask your chemist to supply you with very small bottles for salt and pepper, a larger one to hold sugar, and a still larger one for milk. To make your gift more attractive and artistic paint the glassware with a bright Cubist design, which can be traced on by using red carbon paper. The complete present will be very inexpensive.

IF you are so unfortunate as to get tar stains on your best silk stockings, try treating them with an organic solvent such as benzine, carbon-tetrachloride, or xylene. Rub the stain thoroughly, and then wash it in hot soapy water. If the stain is very hard, rub a little lard into it as thoroughly as possible, leave for an hour or two so that the lard can soften the tar. Then give it an ordinary washing. Repeat several times if necessary.

SUCCESS in baby welfare depends greatly on punctuality and diet. Both are secrets of success where nursery life is concerned. You will notice that the modern healthy baby is not given soppy milk foods which are detrimental to its teeth and digestion, but instead it is given hard crusts and rusks. A one to two-year-old child



should be given for breakfast buttered toast, barley jelly or strained porridge. The mid-day meal should consist of vegetables, with potatoes and bread-crumbs mixed with gravy, and milk puddings. To vary this menu, egg, fish, custards, baked apples, junket, fresh cream—never forgetting spinach—make excellent health producing food. Stewed liver should be given now and then, as this is invaluable as growth food. With the care, study and thought that is being given to the first years of a child's life, it is no wonder New Zealand produces such a fine healthy type of men and women.

NOW that we have at last some real sun to burn and brown us we at once begin to think of some protective measures for the complexion. One of the best of these toilet aids is cucumber cream, and it very easy to make. Use six medium-sized cucum-

bers which still like a touch of the fantastic, there is a new design of cut-glass, on which quaint figures are engraved by the revived method of flint-cutting, each glass having a different figure. Or again, colours appearing to be woven into the glass in waves and lines produce a rather attractive effect, particularly on centre bowls and vases. This is achieved by actually weaving bands of colour round the bowl while it is still soft, and the subsequent melting into the glass gives a lovely blending of colour. This very modern glassware is turned out by one of the oldest firms in England, which goes to prove that English business firms are not so conservative as one is generally led to suppose.

THERE are very few people know what a wonderful difference it makes to bacon or ham if you soak it in milk overnight, before cooking it for break-

THOUGHT FOR THE WEEK

Laziness grows on people; it begins in cobwebs, and ends in iron chains. The more business a man has to do the more he is able to accomplish, for he learns to economise his time.

—Judge Hale

bers and clean them well with a damp cloth. Cut into slices about one-third of an inch thick, and put these with six ounces of oil of sweet almonds into a jar. Stand the jar in a pan of cold water, place on a stove, and bring slowly to boiling point. Simmer for four or five hours, and then strain the juice out through a muslin cloth. To each 6oz. of the liquid add 1oz. of white wax and 2oz. of lanolin. Boil up the water in the pan and place in it the jar with the cream mixture. Stir well until all the ingredients are thoroughly mixed. Remove the jar from the hot water and keep on stirring rapidly until the cream sets.

THE present-day beauty parlours are aiming to give their clients a clear, transparent skin of glowing health. The healthy open-air look is being cultivated by means of "mud-pack" treatments. Perhaps now the sun has appeared this will no longer be necessary.

THE newest designs for glassware, especially for the table, follow the simplest lines. Grotesque shapes have given way to dignified, almost austere, designs. At dinner the other evening I saw a beautiful set of decanters, claret jug, glasses and finger-bowls, all in the palest shade of golden amber, set off by table-mats of delicate lace. For

fast the next morning. It makes it deliciously tender and also takes away any over-salting that may exist.

THE plumber's shop window has become a thing of beauty. One does not pass by now without stopping, for some of the modern wash-hand basins are most attractive. They are not only to be had in white, but in primrose yellow, blue, green or pink. To match these, fascinating fittings can be procured, such as porcelain shelves of the same colours. These basins with chromium-plated taps, or enamelled taps to match, make quite an artistic accessory in the bedroom and a great improvement on the old-fashioned washing-stand. In all the modern hotels these basins are superseding them also.

ONE glance at the railway signalling school which has been opened by the London and North-Eastern Railway Company at York would settle any boy's mind that the ideal life is that of a railwayman (says a correspondent in the "Daily Mail"). Here, set out in every detail, not only with signals and lines and points, but working signalling apparatus and the latest electric signalling lights, is a model railway true to scale. Although it would be a boy's heaven, it is serving the useful and serious purpose of teach-

ing railwaymen to use the most modern signalling methods. By electrical connection with a model engine it is possible to stage emergencies caused by weather or accidents. There is also a fully equipped signal box working in conjunction with four other boxes, and instruction is given in fixed, hand and detonating signal working during fog, working station yards or level crossings, and such emergencies as out-of-gauge loads. There is also technical training with full-sized points and signals. The whole apparatus has been built by railway experts.

A NEW nursery fashion in children's presents this year (says a writer in the "Daily Telegraph") are unbreakable, stainless, washable and heat-proof trays with famous nursery tales told in pictures and words engraved upon them. Princess Mary bought two, one a Cinderella tray and the other illustrating six nursery rhymes.

THOSE of you who have tweed skirts, of which the coat has shown signs of wear sooner than the skirt, will be pleased to know that it is again fashionable to wear plain cloth coats with the tweed skirt, but you must remember to have a belt for the coat of tweed to match the skirt, and points of tweed inlet on the sleeves and collar.

DISCUSSING the effect of electricity on commerce, an English writer states that the British Electrical Development Association has more than justified its existence. The excellence of its results is obvious to all—results which have been brought about by very extensive and skilled advertising. It has made better lighting possible and thereby assisted commerce, for a brightly lit shop is its own advertisement. By so doing they increase the output in a hundred other industries, thereby improving the labour market. More consumption of current means more labour in the coal, chemical, and engineering

**Sold direct
at £5/5/-
Saving**

No retail
profits or
salesmen's
commissions.



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

Buy this full-sized, efficient, fully-guaranteed Vacuum Cleaner direct from the sole importers. The heart of a cleaner is the motor. The SUNSHINE has the world-famous Westinghouse Motor, and 16 other distinct superiorities. Write for illustrated folder:—
Sole N.Z. Distributors:
HAROLD LIGHTBAND, LTD.,
79a Lichfield Street, Christchurch.
Or 336 Queen Street, Auckland.

Lady Smokers, Read This!

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

ing industries. More electricity means more lamps and apparatus for its consumption, more cables, more generators, and more transformers, which proves without a doubt that by judicious and widespread advertisement the labour market is improved and unemployment materially assisted.

SPEAKING at the dinner in Hyde Park Hotel, in aid of the Girton College building fund, Mr. Stanley Baldwin gave an account of his first encounter with a Girton girl.

"My first acquaintance with a Girton girl," he said, "was rather of an alarming nature. It was when I was 17. I was very shy, and knew nothing of women. I met her at a dance, and she told me that men had no natural modesty. I had never thought about the subject before, but I felt instinctively that they had." In more serious vein he added later on: "For centuries we men have moulded the world, and we can see now what we have made of it. We welcome the work that educated women can do."

IT is the very young with fair hair who can really successfully wear black. Jet for evening wear is going to be all the vogue; and nothing is more distinguished than a fine Russian mesh covered with sparkling, jet beads. If any of you ever contemplate bringing a jet beaded frock out from England, be very careful what happens to it during the tropics. I had one brought out, and the heat was so intense it took all the brightness off the beads in patches. Next time I'll see it comes in the refrigerator!

JEWELLERY made by hand from sheet pewter will delight the artistic woman. Very effective buckles for hat-bands or belts can be made from the unpolished beaten pewter, and when set with semi-precious stones such as lapis-lazuli, cornelian or agate the effect is very smart. Coal brooches, in which are encrusted square or rounded amethysts, are being worn at the neck on soft grey or black frocks. A novel New Year gift would be a set of jewelled pewter toilet table accessories, or for single presents a candlestick or blotter of painted wood ornamented with beaten pewter would be most attractive.

FASHIONS in furs are ever-changing. At present the fashion is for snow-white ermine—rather beyond the purse of the average woman. There's no denying that ermine coats cut in simple and graceful lines are more than attractive for those who can afford them. However, American women are all in favour of pale grey broad tail lamb with large collars and cuffs of dark mink. This attire is also more within the means of millionaires' banking accounts.

Prize Poem Competition

DURING the past fortnight entries for the prize poem competition were not as numerous as usual, this no doubt being attributable to multifarious and happy activities of the season just past. No poem was received that, in our judgment, merited the award of a prize, but we published several of the contributions sent in which, for one reason or another, are interesting and attractive.

"Wild Rose"—We hope you found your poem on the last page of the issue of December 26, under a title which we thought in keeping with its charming character.

"The Sick Room"—A great improvement on the last verses sent in. We may be able to publish some day.

"Night to Morning"—A somewhat hackneyed theme treated with insight and skill by a contributor from the wild West Coast.

"Nostalgia" appeals by virtue of awareness of the gentle sentiment enveloping "the everydayness of this workday world," and aptly enumerates beloved household gods:—

*"Through curtains undrawn I descry, blue and red,
The comfortable company of untidy books;
The dresser beyond, and straining I see
Its friendly confusion, odd cups on the hooks . . ."*

Home, sweet home, in fact, which we all love, humble or haughty.

"Bashleu"—The poem you mention was not mislaid, but lack of space precluded publication, although 'twas an excellent effort. "The Little Girl" poem is not so successful, its sentiment being a trifle obvious.

"Francesca"—Too vituperative for our quiet column.

"Bathsheba"—Your voluminous effort contains echo after echo of poems that have had their day and ceased to be. Better half a dozen verses where originality lies than words, words, and yet again words, culled from well known sources.

"John-o'-Dreams"—Fascinating phrasing, but unsuitable.

IN the shop windows during our festive season were to be seen amusing little dogs to add to the gaiety of the bathroom. There was one sitting up in front of his kennel begging. Both he and the kennel were of coloured rubber sponge and their duty was to hold the toothbrush. Quite nearby, in the same shop, was a cat—a very beautiful one—sitting up and looking very superior with his head held high because he had a pink bow on. His duty was to provide sweet verbena scented salts for my lady's bath.

NOW that hot weather is coming to stay (we hope) nobody will feel like eating roasts of beef at the end of a long day, so the following recipe for fish in jelly may be useful: Cook any white fish, using only just enough water to cover, and flavour with a few peppercorns and lemon juice. When ready lift out the fish and strain the liquid. Measure this, season to taste, adding a little white wine or sherry, and dissolve in it an ounce of gelatine to each pint. Remove any skin from the fish, lift it carefully from the bone and arrange neatly in a china mould. Garnish with slices of hard-boiled egg, cucumber or tomato, pour the jelly over and leave to set. Turn out and serve with mayonnaise salad.

—ALISON.

The Emancipation of Women

A Lively Discussion

AT a recent meeting of the After-Dinner Club in London various writers, famous and otherwise, embarked upon a discussion of that everlasting problem—should women be allowed to do as they please?

Rosita Forbes, who has never suffered from any noticeable lack of freedom herself, declared that if women knew what they wanted to do, they should be allowed to do it. The trouble was that no woman could ever be depended on to want the same thing for two months at a time.

Male opinion, as represented by such speakers as Beverley Nichols and Michael Arlen, seemed to agree unanimously that women had too many privileges. "Too many for their own happiness," quoted the author of "The Green Hat." "You can have too much of freedom, because nobody wants to keep you captive." With which cryptic saying we shall have to content ourselves for the time being.

Attractive Party Dishes

IT is fashionable nowadays to be as unconventional as possible, especially at "breakfast-supper" parties after a ball. The correct thing is to have kippers, sausages, mushrooms (when in season), ham and eggs, and creamed fish. This certainly is a change from very sweet dishes, which tend to make one feel heavy, while these are more exhilarating.

The Present Depression

A Brighter Outlook Needed

WHY is it that in all our business activities we cannot cultivate a cheerful tone instead of a pessimistic one? Christian Scientists have certainly proved there is everything in the Right Thought. Then, why make matters worse at the present time by talking about slumps and depression?

People do not hesitate to spend money on picture theatres, for they are crowded nightly, and they are certainly a luxury at their present prices. Every one seems to be sending mental wireless messages that they "must not spend money"—"all this unemployment"—"it will be worse this year"—"the lowest price wool has brought for thirty years."

Why create the thought of depression? Everything has a tendency to adjust itself, therefore what one loses on the swings one gets back on the roundabouts. New Zealand has had such exceptionally prosperous years that now because things are below par everybody cries out and makes a fuss.

There are many people in New Zealand who have steady incomes, either private or business. Then why make those people frightened to spend by all this poverty talk? If this depressing talk ceased, people who have regular incomes would spend, and gradually adjustments would be made. Think prosperity—practise prosperity—act prosperity, and the result will be prosperity.

A Present-day Problem


Are Homes Disappearing?

THE big question of to-day is this: Are we losing touch with our homes? Are they becoming too mechanical?

Everything at present is being done to simplify work and bring housekeeping up to date by the latest modern devices. Will this in time tend to make our homes a place to sleep in an electrically cleaned room, in an electrically warmed bed, waking up to get in an electrically heated bath, arriving at breakfast to eat an electrically cooked meal, while warming ourselves by an electrically heated fire? Will this system of running our homes by machinery make us mechanically minded, and tend to make us lose the cosy home feeling? Certainly not.

It may make us lazy, as no effort whatsoever will be needed to run our homes; all we have to do to obtain our wishes is to press a button. Men will fuss for a little, as they hate change, but a good housewife will always make a home attractive, whether it is hand or machine made.

Pulmonas
PASTILLES
for
COUGHS and COLDS



INDIGESTION
Heartburn, Acidity &
all Stomach disorders
SPECIALLY RELIEVED BY
PEPTOS
THE GREAT PAW-PAW
REMEDY
ALL CHEMISTS



Miscellaneous Recipes



Winnipeg Cookies

Ingredients: $\frac{1}{2}$ lb. chopped dates, 2ozs. chopped walnuts, $2\frac{1}{2}$ ozs. butter, 1 egg, 1 tablespoon hot water, $\frac{1}{2}$ cup flour, $\frac{1}{2}$ cup sugar, $\frac{1}{2}$ cup chopped peel, 1 teaspoon each cinnamon, cloves, and baking-powder.

Method: Cream the butter and sugar, add the beaten egg, then the baking-powder dissolved in the hot water, and lastly the other ingredients. The whole must make a fairly stiff mixture. Take out in rough heaped spoonfuls and put on a cold oven tray. Bake in a moderate oven 10 to 15 minutes.

Muffins

Method: Mix 2 teaspoonfuls of baking-powder with 2 cupfuls of flour, add a little salt and $\frac{1}{2}$ cup sugar, and rub in one tablespoonful of butter. Add one egg, beaten in a cup of milk. Stir well and bake in greased tins for twenty minutes. Split and spread with butter. Delicious, eaten hot or cold.

Corn Cakes (to be eaten fresh)

Ingredients: 3ozs. Indian cornflour, 3ozs. butter, 4oz. candied lemon-peel (finely chopped), $\frac{1}{2}$ teaspoonful of baking-powder, 1oz. castor sugar, 1 egg.

Method: Butter a dozen small patty-pans and get oven fairly hot. Cream the butter and sugar together, well beat egg and add it to the cream; mix the peel and baking-powder together by tossing them in paper. Sift in the flour gradually beating all the time. Last of all, when the cake is quite smooth, add the peel and baking-powder. Put one teaspoonful of the mixture into each patty-pan and bake for about five minutes.

Belgian Fingers

Ingredients: 1 large cup flour, $\frac{1}{2}$ lb. butter, 3 tablespoons sugar, one tablespoon cream of tartar, $\frac{1}{2}$ teaspoon soda, one egg.

Method: Mix all together, roll out very thin, spread with raspberry jam, fold over. Bake in fairly hot oven. When cold ice and sprinkle with chop-

ped nuts and cut in fingers. Icing: One tablespoon butter, 5 tablespoons icing-sugar, few drops of essence vanilla. dough is still warm, roll out and cut into small squares. Bake in a moderate oven and when cold, ice.

Almond Coffee Slices

Ingredients: One teacup butter, 2 teacups sugar, 3 teacups flour, one teacup milk, 3 eggs, one teaspoon B.P.

Method: Cream butter and sugar. Add well-beaten eggs, milk, flour and

Harmony Tarts

Method: To $\frac{1}{2}$ cup butter and $\frac{1}{2}$ cup sugar, beaten to a cream, add 1 egg yolk well-beaten with a tablespoon of milk. Next sift 1 large cup of flour to which has been added $\frac{1}{2}$ teaspoon

Method: Melt the butter and sugar and cream well together. Then add eggs, one at a time, rolled oats, flour, salt and vanilla, and lastly baking-powder. Place in small spoonfuls on a cold tray and bake in a moderate oven until a golden brown—from 20 to 30 minutes.

Almond Drink

PUT 6oz. sweet almonds into a saucepan and 1 of bitter, with $1\frac{1}{2}$ pints warm water; set on the fire and when boiling, take off the skins, put the almonds in cold water to cool, dry them in a cloth, and chop finely. Set $1\frac{1}{2}$ lb. sugar and 1 pint water to boil, and throw in the almonds; boil all together for a few minutes, then leave it to simmer for $\frac{1}{2}$ hour. It is then ready to strain for use. Bottle, and when required, add a small quantity of the syrup to a glass of cold water, according to the strength required.

Passing Bells

*Oh Time! you steal the swift days from us, and once more
You hover, like a grim hawk, o'er the year that dies.
The last day wanes in silence, and the golden store
Of full, rich hours glides far into the empty skies.*

*Oh, night of many memories! How calm you are, how still!
And yet in thy grey silence there is misty pain and tears.
I watch the darkness creep, a phantom, from the hill,
And all the time I hear the wailing of the years.*

*My glad, glad days! They vanish as a mist away.
Loved hours, loved joys, loved faces, pass into the night.
Oh! now the year is dead! Glad bells ring in the day . . .
My heart is dark with tears . . . but in the East is Light!*
—BASBLEU.

B.P. Bake in a shallow, oblong tin (greased) in moderate hot oven. When ready cover with fairly thick coffee butter icing, making this with equal parts creamed butter and icing-sugar. Leave the icing on roughly and cover with sliced burnt almonds. Cut into fingers.

Honey and Almond Cakes

Method: Put 2 cups honey in a saucepan with $\frac{1}{2}$ lb. castor sugar. Cook 3 minutes, add $\frac{1}{2}$ lb. of almonds (chopped) and cook 5 minutes longer; then add enough flour to make a stiff dough. Take from fire and when slightly cooled, add $\frac{1}{2}$ lb. orange-peel cut fine, rind of 1 lemon grated, $\frac{1}{2}$ teaspoon each of ground cinnamon and grated nutmeg, $\frac{1}{2}$ teaspoon of soda, pinch of salt. While

baking-powder and a pinch of salt. Roll out, line patty-tins with this pastry, and fill with the following: Beat the egg white quite stiff, add $\frac{1}{2}$ cup of sugar and $\frac{1}{2}$ cup cocoanut and essence of lemon. Bake in a moderate oven.

Delicious Cakes

Ingredients: 3oz. flour, 2oz. butter, 3oz. castor sugar, 4oz. ground almonds, a few glace cherries, and sweet almonds; beaten egg to mix.

Method: Beat butter to a cream, add sugar, almonds and flour. Mix well. Then add enough beaten egg to make a soft paste that will pass easily through a forcing bag. Pipe the mixture on to greased tins, using a large rosetube, or it may be just put on the tins in little heaps. Press a glace cherry or blanched almond on each and bake in a moderate oven 15 or 20 minutes.

Oatina Brownies

Ingredients: $\frac{1}{2}$ cup of butter, 2 teacups brown sugar, 2 eggs, 4 teacups Oatina, 1 cup of flour, 2 teaspoons baking-powder, pinch of salt, 1 small teaspoon vanilla essence.



A Cooking Hint.

—One that means lighter, fluffier, more delicious scones and cakes—with higher food value and a much longer period of freshness.

Add a few spoonfuls of ANCHOR SKIM MILK POWDER to every mixture.

Ask your grocer for "ANCHOR" TODAY.

PRICE 1/2 PER TIN.

Free Recipe Folder—write to "Anchor," Box 344, Auckland.

FAMA

For Bathrooms, Lavatories,
Sink-tops, etc.

FAMA STONEWOOD FLOORING CO., Wellington.

WHILE the time has not yet come when the farmer can milk his cows by turning on his radio, a cow recently was milked in America by wireless control in a demonstration of a special milking machine. The radio milker operated five times as fast as the ordinary milking machine. The radio-control set was equipped with an aerial four and one-half feet long, and a similar aerial was connected to the milking machine.



RADIO listeners in America recently heard a two-way conversation between Senator Marconi, in Naples, and the president of the Radio Corporation of America. This was conducted per medium of shortwave telephony, Marconi speaking from his yacht, the Electra, and the president of the R.C.A. from Schenectady, New York. A nation-wide network of stations carried the conversation to listeners throughout America.

THE Italian Minister of Communications is proposing to make new regulations concerning radio. These forbid the installation and use of electric apparatus, except wireless receivers, other than that employed in authorised factories, business houses, schools and by the Press. All vendors of electrical apparatus must obtain a special permit. Inspectors will investigate any suspected violation of these regulations, and where abuse is proved, severe punishment will follow. Further, should a

person be desirous of importing any radio electric apparatus he must first obtain the permit of the Minister of Communications, vised by the Minister for the Interior.

IN Norway it was, until recently, the practice for aeroplanes to locate herring shoals for fishermen. This was not entirely successful, as it was frequently found that when the boats were launched and arrived at the spot indicated, the fish had moved away. Now the aviator is accompanied by a wireless operator who sends his message to the nearest port, which in turn broadcasts the news to the cruising boats.

AT the present time approximately 20 per cent. of the aeroplanes in the United States are equipped with apparatus for receiving beacon signals,

and practically all of the unequipped are privately owned craft. The majority of the commercial and passenger-carrying planes have, in addition to beacon apparatus, an operator for carrying on communication with the ground stations.

NO sure means of locating submerged submarines has yet been developed, although various types of listening gear have proved moderately effective. Statements recently have been made, however, that the British Admiralty has developed apparatus for locating submarines at a distance. Such a device, if perfected, would mean the end of undersea fighting craft. However, the range of listening gear at present in use in all the navies of the world, so far as is known, is measured in hundreds of yards, rather than miles, so that, unless the sea were alive with scout boats, many submarines would

escape detection. A large proportion of the devices in use at present for locating submarines depend on the propagation through the water of beams of sound waves too short to be audible to the human ear. They differ from audible sound waves in that they can be directed along a comparatively narrow path, and can be produced from electrically excited crystals of quartz, similar to those used in radio transmitters. These sounds are reflected as echoes from solid objects, and are picked up by delicate and highly-complicated radio receiving apparatus, passed through amplifiers, and are finally interpreted by trained observers.

GERMANY is waging a determined war on interference and threatens to severely punish those who use apparatus causing noise. Certain manufacturing plants which cannot avoid causing electrical interference may only be used outside the main broadcasting hours. The public are also advised that it is in their own interests, when buying electrical appliances to ask for the maker's guarantee that it will not cause interference.

AS a result of prolonged investigation into the methods of lining studios and rendering them sound and echo-proof, the B.B.C. experts are introducing at the new Edinburgh station some fresh technical developments. A layer of felt—one inch thick—will be placed on wooden strips about three feet apart, and over that will be stretched decorative fabrics. When this new scheme is completed the echo will be reduced to almost imperceptible proportions—in fact, from four and a half seconds to half a second.

DURING the severe earthquakes in Southern Italy recently, the wireless coach of the Italian State Railways rendered valuable service in maintaining communication with towns outside the affected area. The equipment comprises not only a complete telegraph and telephone equipment for attachment to telephone lines, but also a wireless installation consisting of three transmitters and three receivers.

A CLEVER young German engineer has devised a method whereby foreign stations can be heard as clearly as the local station. Large technically up-to-the-minute receivers are to be installed outside large cities, each being designed to receive an individual foreign station. A special cable will relay this reception to a smaller transmitter established in the town, which will give an amplified transmission. This system will permit a modest three-valve set to pick up the most remote stations.

IN order that passengers using the Danish ferries may get in touch with the European telephone system, special radio transmitting and receiving apparatus has been established. It is now possible to speak direct from the ferry to any telephone subscriber in Europe.

WHAT IS IT ?

"Radio's Clearest Voice"

A NEW RADIO
Not only NEW, but COMPLETELY DIFFERENT

Features no other set has ;
Features no other set can have

It's the Greatest Radio in All History
DUE EARLY FEBRUARY