



Published Weekly

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

Vol. II., No. 33.

WELLINGTON, FRIDAY, MARCH 1, 1929.

America Evolves Unity from Chaos

THE consolidation of wireless interests which has recently taken place in the United States, and of which some news has been already published, proves to be of somewhat greater magnitude and import than at first realised. It constitutes a very interesting evolution in the direction of unity from the welter of competition which obtained in recent years, and provokes the reflection that America, by one path, is reaching toward that state of unified development which Britain attained by the more direct and logical path of a national system of broadcasting under Government establishment. This development is of particular value to New Zealand in its endorsement of the wisdom of the policy laid down by the authorities at the inception of broadcasting in this Dominion.



HE American consolidation was effected in the last stages of the dying year, and to celebrate the occasion of the inauguration of a complete trans-Continental system there was broadcast on December 24 (Christmas Eve) a continuous 24-hour national program: from all stations in the colossal national link-up. This makes the largest network of associated wireless stations in the world, and brings into daily contact the Atlantic and Pacific seabords of America. This outcome is a triumph for the National Broadcasting Company of America, working in co-operation with the American Broadcasting Company and the Columbia Broadcasting System. By it, distant reception of national programmes will become local reception for all listeners from the Canadian North-West frontier right down to sunny California.

Fifty-eight affiliated stations, situated in various parts of the United States, are affected in the new combination. The first section of the new system was completed on June 1, when the line from Omaha (Nebraska) was extended to Denver (Colorado) and to the eastern seaboard. The final link between Denver and San Francisco involved intensive work for more than a year, and constituted the final stage in the linking by special land wires of the whole of the associated transmitting stations. It is estimated that the cost of maintaining this 2,200-mile circuit, operated on land lines, will cost the National Broadcasting Company £45,000 a year, and will involve the use and upkeep of 4,500 miles of wire.

BY the combination now effected, it is estimated that direct contact will be made with 82.7 per cent. of the total wireless listeners of the United States. Main programmes from New York stations will become national in importance and scope, as transmitted through the affiliated stations. It is not intended, however, that the affiliated stations will lose their entire individuality. For them there is planned an extensive campaign of public service, in addition to providing concerts and other popular features. Individuality will be retained, and their own particular policies maintained in development. The national link-up, of course, will be most effective and valuable in the transmission of outstanding events or programmes. A further benefit of the combination lies in the broadening of the field of talent. New York will not necessarily dominate the national ear. Talent from the Pacific coast will be fed back to the eastern centres, and every effort made to let the nation hear those whose talent entitles them to that honour.

NATURALLY so important a development in the radio world as this combination has not passed without keen discussion and criticism. Certain critics have professed to see in the development a danger to radio and a menace to the future of broadcasting. Their stand is based upon fear of a monopoly of the national ear, as governed from a central organisation. With old-time American independence they take their stand on a preference for independent stations operating as at present. Economic facts are, however, against them in the full application of their theory. Independent

competitive units are not economic in the modern sense. This has been, and is being proved in every aspect of modern business. In the world of motor-car manufacture the course of business has been to kill and absorb small units into large units, thus forcing a steady reduction of the number of manufacturers. This has proved a benefit to the car user, not a penalty. Competition failed to give the economy in manufacture that combination is giving. So in radio the same principle broadly applies. The scope of modern life demands big scale efficiency. Under economic pressure the independent broadcasting station is doomed. The weak units are doomed. Efficiency, from the listener's point of view, will be attained only by big-scale central organisations into which are consolidated all reasonable available revenue and administrative capacity to give the standard of service demanded by the public.

Some American critics of the new combination deplore the passing of the competitive element. Just as in other fields similar trepidation has been proved unfounded, so it will prove in this case. Critics must never overlook the fact that, however big any organisation may be, the public is always bigger, that in modern life it is the spirit of service that counts, and that through an extraordinary, but inevitable, combination of self-interest and public service, steady pressure is always maintained by public opinion for efficient attainment. America is not yet at the goal attained in Britain, but the recent development takes a long stride towards it, and provides a most interesting object-lesson for this dominion.

Auckland Notes

(By "Listener.")

SOME time ago an Australian writer devoted considerable space to adjudging opinions upon the unpopularity of pianoforte items as a class. His chief deduction was that in supplying music for broadcasting the performer studied his own appreciation rather than that of an audience the majority of whom were capable of enjoying items of a less classical nature. Locally there has been little to cavil at in pianoforte broadcasts, but there has been quite an object lesson to listeners upon the appreciation of organ music. There was a time when we had regular municipal organ recitals on the air, and it must be frankly admitted that the majority of set owners sought elsewhere for their radio entertainment when these were in progress. The programmes were in the main quite above the musical taste of their scattered audience, and the relaying of the recitals was in itself often unsatisfactory, despite many tests and experiments. Now we have regular organ broadcasts from the Tabernacle organ, at which Mr. Arthur Wilson presides, and there is quite a different story to be told mainly because the organist "plays down" to his audience, and, where he wishes to develop their appreciation, he delivers a brief and interesting explanation of the piece which he is about to render. Certainly Mr. Wilson has done much to change listeners' views upon the subject of organ relays.

DURING this week IYA has sponsored a series of talks upon vocational training, these having been delivered by prominent Rotarians of the city. While none of the speakers has propounded any definite scheme for the solution of juvenile unemployment, each has emphasised some phase of it,

and suggested lines upon which remedies might be found. One of the most interesting in this way was Mr. C. F. Bennett, who spoke most incisively upon existing conditions and the possibilities which the land held. The greatest benefit which will accrue from these talks is the community service they will render in focusing a large body of public opinion upon a problem which urgently demands solution.

LAST week we had a demonstration of how wonderfully effective the human voice can be upon the air. The occasion was the broadcasting of a radio drama, and the artist whose thrillingly effective elocution so stirred listeners was Mr. George Warren. In the writer's opinion it was the finest thing in vivid impersonation that has yet been heard from IYA.

THE formation of an Auckland Radio Society will be of great benefit to local listeners. The society has much wider aims than had the Listeners' League, of which so little has been heard recently, and the members of the new body will be able to do much, not only in the encouragement of listening, but in the more difficult field of educating the big body of listeners who know little or nothing of how their sets function. All success to the efforts of the enthusiasts who brought the society into being.

IYA has added another to its long list of meritorious achievements. On Tuesday last it relayed most successfully 2YA, which was broadcasting a reception to the delegates attending the medical conference at Wellington. Almost every word came through splendidly. There was very little of fading, and the small amount of interference noted suggests that such rebroadcasts may soon be a regular feature of our programme. It was probably the first occasion that Aucklanders had

Allan Wilkie Replies to Criticism.

IN his address from 2YA, Mr. Allan Wilkie referred to certain criticisms that had appeared in "The Dominion." The critic of that paper replied through last week's issue of the "Radio Record"—but now Mr. Wilkie has something more to say.

SHOULD actors be heard or seen off the stage? is the query with which Mr. Plimmer commences his reply to the little lecturette I broadcast on Sunday evening. Why not? I should certainly be delighted to hear Mr. Plimmer discourse on the subject of journalism. Who is better qualified to discuss his profession than the man who has made a life-long study of his particular job?

Really, Mr. Plimmer (I regret I do not know you well enough to return the compliment and address you by your Christian name), what has the fact that the rather spiteful little tattle of a well-known's vocalist's autobiography (written by her secretary), which has caused a mild storm in a tea-cup, to do with this particular case? The lady in question is not an actor (ress), nor did my address consist of gossiping personalities. And while on this subject of an actor being heard or seen may I say that I have gleaned far more useful information and instruction regarding the art of acting and the stage in general from such books as Colley Cibber's "Apology" and Macready's Diary, to name but two, than I have from the articles of professional dramatic critics, always excepting such men as Hazlitt, George Henry Lewes, Charles Lamb, etc.

Mr. Plimmer's reply, however, is full of inaccurate inferences and misstatements, e.g., "Perhaps it was unfortunate for Mr. Wilkie that he could not stick to Shakespeare." May I ask what other subject my address touched upon? Again, "He went out of his way to endeavour to convince listeners in that I, as critic of 'The Dominion' for over twenty-one years, had only a superficial knowledge of Shakespeare." I did nothing of the sort. This is a gross perversion of my statement. In fact, a few lines further down Mr. Plimmer quotes my words verbatim, "The statement as a whole is based on a superficial knowledge of the determining factors in Shakespearean productions." Which is a very different thing from alleging that Mr. Plimmer possesses a superficial knowledge of Shakespeare.

EVEN such Shakespearean authorities as Professor Bradley, Raleigh and Dowden and Quiller Couch are the last people I should consult as to the merit of the individual plays as popular

heard the voice of our Prime Minister since he has assumed office.

THE decision of the P.M.G. to refuse sanction to the proposals made regarding "B" class broadcasting has caused no heartburnings here. Those who know the capabilities of the plant at IYA and are aware of the eagerness of the staff to step into the breach on all special occasions when extra service is warranted, feel that the Karangahape Road station can supply all of our wants, and will develop as these wants increase.

entertainments. I would much prefer to rely upon my practical experience as a Shakespearean producer covering as long a period as Mr. Plimmer's record as a dramatic critic. A short passage is torn from the context and the pith of my argument is omitted. This quotation is labelled as my "crown of folly" and the critic concludes with "Could a statement be more stupid?" Is it possible to over-stress the incomparable intellectual virtues of Shakespeare?

No, it is not, but it is possible for the dramatic critic to over-elaborate the theme, so that to the plain man in the street the criticism reads like a continuation of his school studies.

Should he want to know the source of the play and discourse on Shakespearean philosophy, misdoubt, together with a synopsis of the story, he can obtain all this information from a shilling text book.

I will maintain that the space allotted to the critic could be better employed in a detailed analysis of the acting instead of a sprinkling of adulatory and condemnatory adjectives regarding the principal characters and the remainder dismissed as "also rans."

Finally, may I suggest the reason why certain critics dislike actors to be seen or heard is because they fear it will shake their carefully built up assumption of infallibility on the principle of "I am Sir Oracle, let no dog bark."

The actor's world may be a small one, but it has the advantage of being considerably wider than that of the average critic, whose horizon is bounded by the limits of his home town.

LOUD-SPEAKER KITS

EMMOO 3-FEET CONES.

£3 Each, Post Free Anywhere in New Zealand.

E. G. SHIPLEY,

185 Manchester Street, Christchurch.

MR. G. R. McCARTHY

"Mack", late of Mack's Radio Co., Ltd.

76-77 Kent Terrace,
Wellington

Wishes to inform his many Friends and Customers that he is continuing in business at the above address. His objects in future will be devoted to Radio Service, Repairs, Construction and Accessories for the home builder who will receive every assistance and co-operation, and to aid him in this he is re-organising and re-building his Lab. which will be able to undertake every possible test in Radio Parts, Sets and Accessories.

DEPARTMENT OF TOURIST AND HEALTH RESORTS

When TRAVELLING in New Zealand book you tour with
The Nearest Government Tourist Bureau

BOOKING BUREAUX AT:—

AUCKLAND	Government Life Insurance Bldg., Queen St.
TE AROHA	Whitaker Street
ROTORUA	Fenton Street
WANGANUI	Rutland Buildings (Opp. G.P.O.)
WELLINGTON	Dominion Building, Wakefield Street
NELSON	Hardy Street
CHRISTCHURCH	83 Cathedral Square
GREYMOUTH	Mackay Street
DUNEDIN	Rattray Street
INVERCARGILL	Esk Street
NAPIER	Hastings Street
WESTPORT	Next Bank of N.Z.

AUSTRALIAN OFFICES:—

SYDNEY	London Bank Chambers, 20 Martin Place
MELBOURNE	Dominion Chambers, 59 William Street
ADELAIDE	Director South Australia Intelligence Bureau
BRISBANE	King House, Queen Street
PERTH	285 Queen's Buildings, Murray Street

MAJESTIC Distributors in U.S.A.

have placed orders for
£25,000,000
worth of

Majestic
Electric Radio
Receivers
for **1929**

ALL ELECTRIC

7 Valves and Rectifier.

Genuine Dynamic (moving coil) Speaker, all contained in a Beautiful Matched Burl Walnut Console Cabinet. Beautiful tone, highly selective, single dial control, wonderful distance getter. Besides being the lowest priced Electric Radio on the market, Majestic gives the greatest value ever offered in Radio.

Prospective buyers should wait and hear the Majestic. They will surely be disappointed if they purchase any other Receiver.

Shipments arriving at an early date.

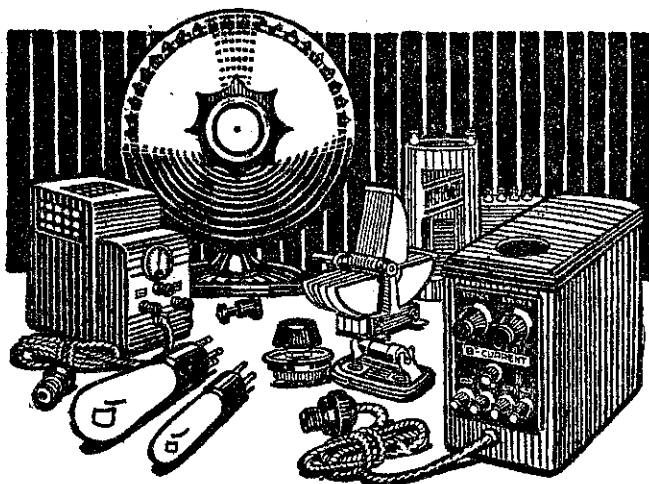
There is a Majestic distributor in every part of New Zealand. Full list will be published later.

For immediate enquiries, write—

Box 462, Auckland. 1581, Wellington. 922, Christchurch. 516, Dunedin.

"Modern Wireless"

The very Latest and Most Up-to-date Books on Radio



FREE—

An Illustrated Booklet on "Modern Wireless" is yours for the asking. CLIP the COUPON BELOW

However much you know these Books will teach you more

"Modern Wireless," by Robert W. Beare, contains valuable introductions by Arthur Burrows and Capt. Eckersley, full-page plates, keyed diagrams and easy "how-to-do-it" pictures. It is the most complete outline of the evolution of radio broadcasting.

principles and methods. It gives you all the knowledge you want, plus a practical understanding of the wireless of to-day and the wide possibilities of the future.

Improve your set — Let "Modern Wireless" show you how.

This excellent work shows you how to make complete wireless sets and how to improve results from sets already installed. It tells you all the difficulties that have yet to be cleared up in this fascinating field of scientific research. Every point is made clear in simple language. Your greatest pleasure is still to come from radio when you read and use "Modern Wireless." You will find that nothing is missed, it covers the entire subject—helpful alike to the novice, practised experimenter and experienced specialist. Send for your copy of the free booklet to-day.

You can study while you pay. Deposit 5/- and make small monthly payments.

JAMES JOHNSTON, LIMITED,
Publishers, 217 Princes Street,
DUNEDIN.

Please send me your Free Illustrated Booklet on "Modern Wireless" and particulars as to your offer to deliver the complete set of three volumes at once on receipt of the first payment of 5/-. The balance to be paid in a few monthly instalments.

Name

Address

(Post this coupon in an unsealed envelope, stamped ½d.)

R1

Notes and Comments

By "Switch"

NO experienced listener harbours the fatuous belief that the howling valve nuisance can be completely eliminated under the existing radio conditions, but some measure of relief can be reasonably hoped for by educational propaganda. In the Mount Victoria area there is one individual, probably a one-valve set owner, who fills the air nightly with fiendish screams. This person is quite likely ignorant of the interference he is occasioning. Possibly, he is overloading his valve with "B" battery voltage, and cannot prevent his valve from oscillating. If this should meet his eye he should tap his aerial terminal with a moistened finger-tip; if he hears a loud click when he touches his aerial terminal he will know his valve is creating interference.

A GRID leak with a too high resistance will cause a valve to become a "howler." The resistance should be reduced gradually until the best value is found. The filament of a valve which is receiving too much current from the A battery will also make a valve howl, besides shortening the life of the valve. If a set employs radio-frequency amplification the radio-frequency transformers, if placed too close, will cause howling. The transformers feed back from the plate to the grid and cause oscillation ("howling").

THE Sydney "Wireless Weekly" publishes the following letter from a correspondent:—J.W.R. (Croydon).—"I have built a crystal set from the circuit published in your paper, and I cannot get results. I am certain all the wiring is correct. The only thing I can think of that may be wrong is the catswhisker, this hair I cut off, our cat's face is white. Should the hair be black? Kindly answer in your helpful paper?" The editor published the following answer:—"We have opportunity here to read some very amusing letters. Yours wins easily this year! Almost as funny as the reader whose aerial was attached to the guttering of his house, and his earth to a peach tin filled with water—for a crystal set—miles away from a broadcasting station! A catswhisker is the term given to the piece of coiled wire which is used to make contact with the crystal. A catswhisker usually consists of platinum, though any fine springy wire will do. Excuse our mirth!" All the same, "Switch" believes that the "innocent" correspondent was doing a little leg-pulling.

THE Australian stations have bucked up considerably of late, and nearly any evening one can obtain a fair amount of entertainment from across the Tasman. In point of volume, "Switch" places the Australian stations in this order: 2BL, 2FC, 2GB, 4QG, 3LO, 2UE, 3AR. The Japs. are generally somewhat weak at present, but they have occasional good nights.

Thorne-Baker. Some months ago tests between Melbourne and Sydney were conducted by the leading daily papers in each capital, but due to difficulties of synchronisation the tests were not successful. New Zealand papers are wisely waiting till the process is a proved success after a lengthy trial.

SEVERAL Wellington listeners share the opinion of "Switch" that the Sydney University carillon does not sound tuneful. A Sydney exchange says:—"A series of carillon recitals by Mr. J. G. Fletcher is being given from Sydney University through broadcasting station 2BL. Though there has been much criticism of the carillon and many friends of the University consider that it was a waste of £25,000, it is certain that broadcasting has been the main factor in enabling the carillon to gain admirers." Well, those Wellingtonians who have spoken to "Switch" on the subject express disappointment with the Sydney carillon.

2YA, Wellington, gallantly came to the rescue last Friday night. The crew of the Government steamer Tutanekai were wanted urgently on board the vessel to go out to the Brothers lighthouse with a doctor. The ship had just come back from a long trip round to the South Island lighthouses and the crew were glad to get to their homes. The Marine Department asked 2YA, Wellington, to broadcast a message to the men to return to their ship, and within three hours a sufficient number of men were aboard to take the vessel to sea.

WELLINGTON listeners have observed lately a marked increase in the volume of 4YA, Dunedin. Those who reside within three-quarters of a mile from 2YA, Wellington, are generally unable to get 4YA, while the Wellington station is on the air. On Wednesday evenings, however, 2YA being silent, 4YA is now available to those who desire to hear it.

THE change back to standard time in New Zealand will give listeners a general improvement in reception of the Australian stations after the YA stations close down. Half an hour will make a noticeable difference in the volume of reception.

BEGINNERS are often puzzled over the strength of transmission by broadcast stations expressed in watts. A novice queried the writer the other day on the subject, and somehow he confused "watts" with "volts." A watt is the unit of electric power. Wattage is found by multiplying voltage by amperage; 746 watts is equal to one-horse power. A discussion had arisen as to the horse-power employed in broadcasting at 2YA. Roughly speaking, 2YA employs 6½ horse-power.

Use Our Booking Offices in Advance.

S-O-S

TRAVEL IN COMFORT BY
CAR

NEW PLYMOUTH.
WELLINGTON — PALMERSTON

AT 2FC, Sydney, an individual who went under the pseudonym of the standard of 2FC, especially as the "Mike," used to speak in a whispering voice between the items at 2FC, cornerman type. "Mike" has been Sydney. "Switch" considered the idea taken off the air.

"THE SCOTSMAN," Edinburgh's leading daily paper, claims to be the first newspaper to own and operate its own tele-photograph service. The system used to link "The Scotsman" with its London office is that developed by the English experimenter, J.

Radio Round the World

IN Mexico City arrangements were made to broadcast the proceedings of the trial of Jose Leon Toral, accused of the assassination of General Obregon. This is probably the first time in which a murder trial has been broadcast by the State, and the step was taken in view of the tremendous interest shown in the trial.

A TELEGRAPH wire last month operated two newspaper type-setting machines at Rochester, N.Y. Telegrams by wire were transferred mechanically into lines of metal type, with the human touch eliminated. The possibility of operating these machines by radio has been discussed, but this feature is still in the experimental stage.

THE directors of the B class Melbourne station, 3DB, are beginning experiments with television apparatus. Several sets of equipment operating on the Baird principle have been obtained and installation is nearing completion. Demonstrations of moving picture transmission with this equipment are expected at an early date. Preliminary transmission is expected to be over land lines, and not actually by wireless.

A NEW type of radio beacon is now being erected by the British Air Ministry at Orfordness. Whereas other radio direction-finding systems require two bearings to obtain a position accurately, this only necessitates a wireless receiver, and a stop-watch. The transmitter is a rotating loop which makes a complete revolution each minute giving maximum and minimum signal strength from which the observer calculated his bearings.

A LITTLE while ago a controversy ranged in New South Wales as to the desirability of cutting out the church services on Sunday and replacing them with services held in the studios. The controversy has been re-awakened, and all we in this country can do is to await developments. An Australian magazine points out that the magnificent organ music from the churches could not be replaced in the studio.

IN order to instil a love of music in the souls of young children radio concerts for boys and girls are being broadcast over a network of stations covering the entire United States as far west as the Rocky Mountains. The concerts are controlled by Walter Damrosch, a well-known musician who has received many communications showing the appreciation of children, parents, and teachers. A boy living in Staten Island, near Cape Horn, wrote saying that he had made a set for his classroom on which he was receiving the programmes. Where schools are without a radio, parents who own sets have been opening their homes to whole classes.

AUTOMATIC lighthouses, or more properly, "radio houses," have been, and are being, erected around the English coast. These stations, with a range of about 100 miles, automatically send out wireless signals at speci-

fied intervals. Each station has a distinctive call sign, and their radio signals are easily identified by all vessels fitted with radio direction-finders which enable them to take bearings and find their true positions. The United States coastline has about 50 of these radio beacons in operation, and over 1000 vessels—apart from naval boats—are equipped with the necessary radio compasses.

THROUGH the National Broadcasting Chain in America a well-planned attempt was made to conduct a course of musical appreciation for children, with the result that one hundred and two thousand classrooms throughout the States were equipped with receivers for this course. In very many cases the cost of this equipment

Policy Less Conservative

In the past the British Broadcasting Corporation has been rigidly restricted from broadcasting anything of a controversial character. Even the broadcasting of political speeches was barred because the respective parties could not agree on a method of treating all sides alike. At last the barriers against controversy have been broken down, and since November 9 a series of highly debatable talks is being radiated from the London and other principal stations throughout Great Britain. It will be interesting to note the effect of this on the forthcoming general election campaign in the United Kingdom.

was borne by parents' associations. Now WYU, the 50,000-watt station in Ohio, is embarking upon a daily school broadcast, for which the State will foot the bill, and which will serve the requirements of 198,000 pupils. Nine hundred schools within reliable reception range of the station are equipped with receiving apparatus in over 6000 classrooms.

FAR away off the north-east coast of Scotland there lies a small group of islands known as the Orkney Islands. Many of the islands are inhabited, but there are some so desolate and wind-swept that they are totally deserted. Kirkwell and Stromness are the only two towns of note. A stretch of water known as the Pentland Firth separates the islands from the mainland, and very often the sea is so rough that no boat can cross. Before the introduction of broadcasting these islands led a very drab existence and had to rely on their own re-

sources for amusement. Now all is changed. Every evening those of the inhabitants who have wireless sets, tune in to Glasgow, Aberdeen, or even London, and listen to the latest news and dance to the strains of the Savoy bands, playing hundreds of miles away. People living in cities who are used to theatres and cinemas have no idea what a boon broadcasting is to isolated islands such as the Orkneys.

AN American broadcast expert says of women who talk to the microphone: "Most women are so used to talking, it comes so easy to them, that talking on the air doesn't embarrass them at all. They do not realise that to get your air audience you must do real, intensive work beforehand. Then, again, women do not have the voice depth. They are too likely to run their words together, to be shrill. It is almost inevitable, even in excitement that you are not conscious of, to raise your voice. The true radio voice is down in one's boots. The words, so to speak, drop on the ground one by one."

WHEN listening in, absolute quietness is often of assistance, although this is not always possible or necessary. On the other hand, of course, disturbing noise is fatal to enjoyment of a musical item. A background or foreground of noise does not seem to disturb some listeners. A plebiscite taken in America revealed that a large percentage of listeners used radio merely as a background to their activities, such as dinner, a game of cards, and or other diversion.

The radio stations of the North-west of the United States have tried numerous ways of determining the desires and needs of the listening audience. The American Broadcasting Company even went so far as to sponsor a programme-planning contest through each of their four stations, and discovered that, when all the votes had been pooled and analysed, 75 per cent. preferred lighter instrumental programmes, with occasional singing; 5 per cent. preferred light vocal programmes, and 5 per cent. leaned toward readings and dialogues.

**PHILIPS
MINIWATT**

$V_f = 4.0 \text{ V}$
 $I_f = 0.15 \text{ A}$
 $V_a = 50-150 \text{ V}$
 $I_s = 50 \text{ mA}$
 $I_g = 100$
 $S = 18 \text{ mA}$

**THE
STEEPER
THE
SLOPE
THE
BETTER
THE VALVE**

The curves of Philips 'Miniwatts' SOAR up—they're higher—they're steeper.

The slope of a valve tells you much—for the steeper it is the greater the change in the plate current—grid voltage ratio, higher efficiency, and of course the louder and clearer your music.

[You can pick out the INDIVIDUAL IN-STRUMENTS with a Philips Loudspeaker.]

**PHILIPS
MINIWATTS**

The New Zealand Radio Record

P.O. BOX, 1032, WELLINGTON.

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

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

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

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

WELLINGTON, FRIDAY, MARCH 1, 1929.

THE very general appreciation expressed by a wide circle of listeners of the presidential address given to the British Medical Association by Dr. J. S. Elliott as broadcast by 2YA emphasises the appeal that solid matter of high quality makes to the public and the service that broadcasting can render in this field as opportunity offers. While in the past the Press has rendered very fine service by reporting either in full or in great part, addresses of the nature of that given by Dr. Elliott, that service is not so full or so widespread as can now be given by radio to the extensive circle of listeners enjoying the service to-day. While it is true that possibly the entertainment aspect of radio makes the greatest appeal in point of numbers, it is also true, we think, that there is an unsatisfied demand on the part of the public for participation by means of radio in events of such a character. On this very point a few sentences from a recent issue of "World Radio" are worth quoting. That journal says: "It is an interesting reflection that the growth of broadcasting must have resulted in a vast and rather sudden spread of knowledge, not to say education. Each year anniversaries or centenaries occur. Before the advent of broadcasting, in relatively few was an interest in the subject of such anniversaries awakened. The newspapers and reviews duly recorded and commented upon them to a greater or lesser extent. Those who were interested were able thus to supplement their knowledge. To-day there is little excuse for ignorance of the lives and works of the masters of literature and music; the broadcasting programmes bring them into the greatest prominence . . ."

As with anniversaries, so with current knowledge. The popular view of the medical profession and its splendid service to humanity has been immeasurably widened by Dr. Elliott's address, and we feel on safe ground in expressing the hope that, provided other professions have at their head men capable of the same luminous grasp of their subject and outstanding capacity for expression, as displayed by the doctor, selected addresses from the proceedings of other conferences and assemblies, might be broadcast from time to time.

ON Sunday, local short-wave enthusiasts were treated to the most remarkable re-broadcast on record: Messages from Commander Byrd's Antarctic expedition were picked up with such clarity in America as to invite their re-broadcast. This being done, the re-broadcast was received, not only in New Zealand, but in the Antarctic itself, the source of origin. This is a remarkable attainment but comes merely as the coping stone, as it were, of the wonderful performance being enjoyed almost daily of reading full despatches of the doings of the Byrd Party. Taken now as a matter of course, this, in all that it signifies, is in reality one of the most wonderful events of the age.

Battery Eliminators & Chargers for Radio

No change in Set Wiring.
Complete Electric Operation for Present
Sets now possible.

ROYDS-HOWARD CO., Chch.

LOUD-SPEAKER KITS

EMMCO 3-FOOT CONES.

£3 Each, Post Free Anywhere in
New Zealand.

E. G. SHIPLEY,

185 Manchester Street, Christchurch.

2YB at Work

New Musical Society

Experiment in Wellington Symphony Orchestra for Wellington

STATION 2YB was put into experimental operation in conjunction with 2YA for the first time on the afternoon of Tuesday, February 19, and has continued in operation at each session since. It is working on 268 metres, and is giving, according to early reports that have been received, very general satisfaction in the Wellington city area. A number of listeners have communicated with the station by telephone and commented upon the sweet tone of the station. This is as was expected, because it is generally understood that the reason for the sweetness of the low-powered stations as compared with the high-powered stations, is in the very fact that they are low-powered, and reception does not overtax the valves employed for reception. If it is found by Wellington listeners that reception at 2YB, as compared with reception at 2YA, is superior, then it is clear proof that their ordinary method of reception at 2YA is such as to overtax the valves. Adjustment should, therefore, be carried out, in order to make improvement. This is a matter for a technical expert, but any reputable dealer would be able to make the adjustment quite satisfactorily and quickly. We will be interested to have detailed reports from listeners in various localities as to the comparative strengths and sweetness of reception of the two stations.

IN connection with this test, a telegraph inquiry was addressed to Mr. E. J. L. Payne, president of the New Plymouth Radio Society, asking for a report on the comparative reception of 2YB and 2YA. This inquiry produced an interesting letter, which records a position of definite interest to radio listeners. When 2YB was tested in Christchurch it was heard in New Plymouth with remarkable clarity and tone, definite praise being given to the plant. When the same plant is operated from Wellington on a wavelength very close to that on which the Christchurch test was made, the results so far as reception in New Plymouth are concerned, are disappointing. This is what Mr. Payne kindly reports:—

In response to your telegram, I could not myself identify 2YB on Thursday evening, despite repeated and painstaking searching, including even a change in receivers. To-day, repeated inquiries failed to disclose anyone who had received the lower-wave transmission. To-night I did find it—by using earphones on six valves! Even then it was barely audible when located at 9 p.m. The comparison with the Christchurch test was marked. 2YA itself on 420 metres was weaker than usual, both last night and to-night. 1YA too loud with receiver at maximum, as usual.

This is certainly something of a radio puzzle, but would seem to indicate very clearly that there is some factor between Wellington and New Plymouth in either the nature of the intervening land, or the particular distance, which affects reception. It would be interesting to have reports from other country listeners on this test.

On Monday evening, after the usual transmission, 2YB was operated for a short time with a view to securing

Broadcasting Arranged For

A NEW musical society, to be known as "The Wellington Symphony Orchestra (Incorporated)," has been formed in Wellington.

The objects of the society are "to foster and encourage orchestral music, and to inaugurate and hold from time to time orchestral performances in the city of Wellington, or elsewhere as the executive council shall think fit, and generally to foster, encourage, and advance the art of music, and the study of orchestral playing."

This is stated to be the first symphony orchestra to be formed in New Zealand. The membership stands at one hundred and fifty, three hundred being the objective.

The president (the Hon. R. A. Wright), in a few remarks regarding the aims of the society, said that it should not be difficult to impress music-lovers with the great necessity for a symphony orchestra. They had been charged by musicians from overseas with not being musical. Such a statement, he considered, was not true, for New Zealanders really were musical; but the art needed developing. Another factor in the orchestra's favour was that its concerts would be broadcast, thus giving all New Zealand the benefit of its musical offerings.

It was decided to accept and place on record the offer of the Radio Broadcasting Company to allow the orchestra the use of their studio and piano, and to allow the 2YA orchestra to supplement the symphony orchestra.

Mr. de Mauny said that he hoped to arrange his programmes on the lines of those symphony concerts presented in London. He outlined various items that he hoped to present, and stated that the proposed dates set aside for the concerts were May 2, August 1, and October 31. At the first concert it was his intention to present Tschai-kowsky's "Pathetic Symphony," the "Casse Noisette" suite, the "Italian Caprice," the famous "1812" overture, and the Tschai-kowsky "Variation for 'Cello." The solo would be played by Mr. Claude Tanner.

Boxing

Big Attraction for 4YA

On the evening of Saturday, March 2, the Otago Boxing Association is staging a contest between McDonald and McInnes... The bout will commence at 9 o'clock approximately. Mr. Harry Dwyer will be the announcer for 4YA.

special reports from crystal users as to its range of effective reception. Details of this test will also be of definite interest.

A Notable Address Of National Import Thursday's Unique Life of Valves Appreciated by Listeners Concert Good Figures at 2YA

THE broadcasting of the presidential address by Dr. J. S. Elliott, at the British Medical Association's Conference, was the noteworthy event of last week's 2YA service. Appreciation has been expressed by a very wide circle of listeners. The address was of a very high standard indeed, and unquestionably a particularly wide circle of responsible people was pleased to have this opportunity of listening direct to an address of such outstanding character.

It is usually the experience of the station on the occasion of the broadcasting of outside speeches or functions that a certain number of listeners, who are devoted to the interests of jazz and light music, ring the studio entering complaint and wanting to know when they will be getting their particular fare. It is noteworthy, however, that on the evening that Dr. Elliott was being broadcast, only some four rings of this character came through. This is taken as an indication of the very general popularity of the doctor's address.

On the same evening listeners were given the additional novelty of listening to the concerted voices of the party of English boys now in the Dominion. These were induced to attend at the studio, and from 10 to 10.30 there was a very pleasant impromptu concert. Their choral work was extremely fresh and invigorating.

"Galapagos"

Radio Drama Proves Very Successful

ON Thursday, February 14, the Auckland Dramatic Players, under the direction of Mr. J. F. Montague, presented "Galapagos" at 1YA. The radio production was remarkably successful.

The Broadcasting Company's official listener at Silverdale, Captain Bayley, in the course of a report to the company, states: Incidentally the dramatic narration—with effects—"Galapagos" was a truly magnificent triumph—nothing less—for the performers, and represented to me the keenest pleasure I have yet received over the air from anywhere!

"Galapagos" is the true story of the fate which overtook the Norwegian barque Alexander and the tragic experiences of the crew on the barren island of Galapagos. The radio production was complete with full effects such as sea chants, ship's bells, the roar of the surf and other incidental noises.

In connection with this programme, it is interesting to be able to state that it was specially inquired for by the Broadcasting Company and obtained in America by the company's consultant over there, Mr. Edgar Felix.

So successful was the broadcast from 1YA that the play will no doubt be produced at one or other of the company's stations at a future date.

IN the early days of the newspaper Press the general public took a special delight in passing on items of more or less personal and general interest for publication. In the "bush" stage of development the Press found it desirable to use matter that in later stages of development was discarded. Some people seem to imagine that broadcasting is still in the "bush" stage of development, and take a delight in ringing up the station with items which, while doubtless of intense interest to themselves, yet fail in being of sufficient national importance to warrant broadcasting. An item of this calibre was telephoned to 2YA station the other night. Apparently a party was in progress at a suburban home, and one of the guests it was found had inadvertently placed his socks on inside out. This soul-stirring information was promptly telephoned to 2YA, with a request that it be announced over the air "that Mr. —, at the party of So-and-So, had been found to have his socks on inside out!"

It Was Quiet, All Right

THE programme organiser of 3YA recently, by invitation, formed one of a concert party which visited Paparua gaol. The prisoners were entertained and cheered up by a great variety of items, which they heartily applauded. But they were brought back to earth and listened with stoical silence when a member of the party sang May Brahe's "It's Quiet Down Here." Performers and audience felt embarrassed. Only the radio man seems to be appreciative of the contretemps, and his view-point was detached and different from that of anyone else there. He looks back on it now as a joke, but he says it taught him a lesson as to the fitness of things, and emphasised to him the variety of receptions which the best studio items can receive in a myriad homes, where the extent of appreciation, conditions, and environment differ so much.

Weather Forecast

3YA's Special Service Extended

THE fortnight's experimental midday session, which has been conducted by 3YA at the suggestion of Dr. Kidson, of the Meteorological Department, has been extended to a month. This session was arranged in order to broadcast a special weather report and forecast for the benefit of the harvesting agriculturists of Canterbury. Although the weather was practically "Set Fair" all the time, the two weeks' test was on, both 3YA and the Meteorological Office received sufficient response from farmers to show that the service was appreciated to the extent that an extension was warranted.

A LETTER has lately appeared in the "Edinburg Evening News" from a motorist, who found he could hear broadcasting by merely placing his car in contact with a telegraph post in Aberdeen.

All in Readiness for the Opening of the New and Greater D.I.C.

A COMPLAINT was made recently that the programmes put out by 2YA were "consistently samey," and so endeavour has been made to depart from the usual. Thursday's concert will indeed be a departure in this respect, and everything is in readiness for the special programme to be presented by the management of the D.I.C. to commemorate the opening of their new buildings.

Full details of this concert have already been given, and the arrangements, reflecting great credit on its organisers, promise to eventuate in something altogether unusual.

The new and greater D.I.C., situated in one of Wellington's most busy thoroughfares, is indeed a very fine and imposing building, and will be in the near future one of Wellington's finest buildings. The whole management of the D.I.C. has been rearranged with a view to greater efficiency and greater variety. Many new aspects of the trade are being introduced, and it was found that the old building was totally inadequate. No more fitting opening ceremony could be arranged. Those responsible are to be commended because of the fact that the whole concert given by Wellington's finest talent is to be broadcast.

For some considerable time arrangements for this have been under way, and the concert should be one that will be heard and remembered by all.

Prize Poem Contest

INTENDING competitors are reminded that entries for the prize poem contests promoted by the 2YA Musical and Dramatic Committee, close on March 1.

'Phone 42-137.

FURNISHINGS, FURNITURE, CARPETS AND
LINOLEUMS.

Scoullar Company, Ltd.

The Complete House Furnishers.

88-90 LAMBTON QUAY.

THE TABLES AND CHAIRS
SUPPLIED TO THE D.I.C. FOR
THE NEW TEA ROOMS ARE
SCOULLAR MADE.

INFORMATION was recently published in our columns concerning the remarkably long life of a Marconi valve at the Daventry Broadcasting Station.

Following on various details, it became advisable in another connection for the chief engineer of the Radio Broadcasting Company to compute the life of the valves in operation at 2YA. It was found that some of the valves had given remarkable service. These water-cooled tubes are handling 10,000 volts and passing at least a half ampere of plate current. Two particular tubes headed the list of service with 3426 hours, and are still in operation in perfect condition. Two others attained 2670 hours of service, and were then removed O.K., as it was considered their life was about complete and replacement would perhaps save a stoppage. Other tubes have various periods of service. Considering the hours the station has been in operation, it is remarkable and creditable that there have been no burn-outs whatsoever in connection with the water-cooled tubes. Following on publication of the English record, it is the intention of the engineer to carefully watch the tubes now heading the list for length of service, and see how near they can come to the British figure.

Amalgamated Wireless advise that they have now received particulars of long-lived Marconi valves at the Deutsche-Altenburg transmitting station of Radio-Austria, Limited. At the end of October there were in use two MR6 valves, each of which had worked for 24,356 hours; one MR6 valve which had worked for 24,126 hours.

One MT6 valve burnt out in October after a life of 13,648 hours.

At the end of October MT6 valves were in operation which had worked for 15,146 hours, 19,081 hours, and 19,576 hours.

FOR SALE.

WESTERN ELECTRIC CONDENSED SPEAKER, as used at YA Broadcasting Stations. In perfect condition. £5, and all railway charges paid.

"SPEAKER,"
"Radio Record" Office.

New Apparatus Marconi Attainments

NEW apparatus representing recent developments in wireless work is being exhibited by the Marconi Company at this year's exhibition of the Physical Society and the Optical Society at South Kensington. In addition to wireless receivers and transmitters in their complete state the exhibit includes such auxiliary apparatus as a signal strength measuring set, with a wave-range of from 14 to 5000 metres, and a tuning fork and thermostat unit for maintaining constant frequency in facsimile transmission.

One of the most notable features in connection with the use of maritime wireless is the remarkable extension of the use of direction finding apparatus on ships of practically all types. For some years after the introduction of the marine direction finder the use of this instrument was confined almost entirely to the large passenger liners and a few yachts. It is now to be found in both large and small cargo vessels, tug boats, cross-channel vessels, pilot craft, whalers, salvage steamers, and is also being largely made use of in trawlers. Since 1914, when the direction finder was first introduced commercially as an aid to navigation, on the S.S. Royal George on her voyage from Bristol to Montreal, the Marconi Company alone has fitted upwards of 540 mercantile vessels with this instrument, and it is noteworthy that more than half of this number has been fitted during the last 18 months. The interesting feature of this increase is the growing percentage of cargo vessels making use of this aid to navigation.

A NEW YEAR RESOLUTION---

"Make My Will"

Do not let 1929 get any older without making your Will.

Decide for YOURSELF how your property shall be distributed—do not leave such an important personal matter to the rigid laws of descent.

It is a privilege—as well as a duty—to make a will.

FIRST OF ALL

read the interesting and informative booklet, "Your Estate," obtainable from from any office or agent of the Public Trustee, or free by post from the Public Trustee, Wellington.

The latest type of direction finder is used in conjunction with a fixed frame aerial and possesses a number of important features, the chief of which are the screened valve amplifier, which is highly efficient and stable in operation, and a radio geniometer provided with two scales, one for reading bearings relative to the ship's head and the other for reading true bearings. The instrument covers a wave-range of from 400 to 1100 metres, and the circuits are easily and quickly tuned to any wavelength within this range for the reception of spark, interrupted continuous wave and telephone signals.

There is also shown a new receiver, developed for naval and military purposes with a maximum to minimum wave-range ratio of 2.5 : 1, the set being highly efficient over this range of wavelengths.

Another piece of apparatus particularly suited to shipping is the Marconi Auto-Alarm. This responds only to an alarm signal consisting of 4-second dashes with one second intervals, the alarm bells ringing on the receipt of the third consecutive dash. Working demonstrations of this apparatus are given. The extent to which this apparatus is used by British shipping is shown by the fact that 929 sets have already been installed.

An instrument of great utility for authorities allocating transmitting licenses, for research workers in wireless phenomena, and for those responsible for commercial wireless stations, is this signal strength measuring set, which has been produced by the research laboratories of the Marconi Company. A frame aerial for the reception of the desired signals is mounted on a coupling unit which also contains a means of attenuating the signals produced by a local oscillator. The local oscillator is capable of being tuned from 14 to 500 metres, and is coupled to the frame and to a receiver. By means of the attenuator unit the signal strength of the local oscillator can be measured and can be made equal to the received signal. The signals can be equalised by ear, or, in the case of rapidly varying signals, such as occur in the short wave-band, the receiver output can be calibrated on a recording device.

The local oscillator output is adjusted to be of exactly the same frequency as the signals to be measured and the current is measured by a thermomilliammeter. The receiver is a frame and the set will therefore measure primarily the magnetic field in the wave at the point considered, and the audio intensity of the signal produced is measured by comparison with the known signal strength of the local oscillator. The attenuator and coupling unit, the local oscillation generator, and the batter box, are each contained in a heavy metallic shielding case, which completely screens these units from external interference.

An Odd Antenna

A RADIO receiving set simulating an umbrella has been invented and patented. This odd receiver takes the exact form of an umbrella, including the cloth canopy, ribs and handle. It opens and closes, and when in either position it is so cleverly disguised that the head-phones, connected near the handle, are the only visible evidence to betray its real identity.

Tea with Aunt Pat 3YA Uncles and Aunts Entertained

ON Thursday afternoon, February 21, Aunt Pat of 3YA was hostess at a delightfully informal afternoon tea party at Ballantyne's. It was a happy inspiration on the part of Aunt Pat to commence the new radio year's work in that way. Scatterjoy was present, also Mother Hubbard, Cinderella (of 1YA), Big Brother, Storyman, Uncle David, Chuckle, Uncle Hal, Brother Bill, and Uncle John.

Aunt Pat took the opportunity of welcoming Cinderella, who was on a holiday visit to Christchurch, and au revoir was also said to Uncle Hal, who has been transferred by his firm to Wellington.

The afternoon was a very enjoyable one.

That evening Cinderella took part in the children's session, and 3YA radio children had the opportunity of hearing a chat by the popular Auckland aunty. When Cinderella gets back to 1YA she will have a lot of interesting things to speak about to her many radio nephews and nieces.

Suva Broadcasting

New Year's Eve Event

AN important page of Fijian history was written on the last day of last year, when, for the first time, New Year greetings and a programme of music were broadcast from Suva to listeners throughout the Pacific.

The broadcasting was in the nature of an experiment, and was arranged by Amalgamated Wireless (Australia), Ltd. The Governor (Sir Eyre Hutson), Lady Hutson, and party of representative citizens assembled at the house of Mr. R. C. Farquhar, senior radio officer of the Suva Radio Station, at Vatuwaga, where a microphone and other wireless apparatus was installed, and the land line between the house and Suva radio utilised. Throughout the colony, in Tonga, and in Samoa, hundreds of listeners were awaiting the broadcasting announcements from Suva, and reports from all over the Western Pacific show that the results were very satisfactory. Many listeners in Australia also picked up the pro-

Greatest Event in Broadcasting.

Byrd Hears Own Signals Re-broadcast.

WHAT was referred to as the "Greatest event in radio broadcasting" was carried out this afternoon by the short-wave station of KDKA, Pittsburgh, U.S.A., writes Mr. Sellens (Northland).

The announcer stated that, as signals were being received so well from WFBT, the "City of New York" at Little America, Bay of Whales, Antarctica, they had asked Commander Byrd to send a message which would be picked up by them and re-broadcast. At 12.22 a.m. Eastern Standard Time (5.22 p.m. N.Z. time) this message was commenced and was heard here very well after having travelled 11,000 miles to Pittsburgh and the same distance back again. The operator on the "City of New York" heard his own signals after they had covered a distance of about 22,000 miles.

The message was in reference to the weekly broadcasts for the expedition from KDKA, stating how well they were received and enjoyed by all the party.

At present they were having 24 hours per day daylight, but in about two months they would have continual darkness, when the weekly broadcasts would be even more appreciated.

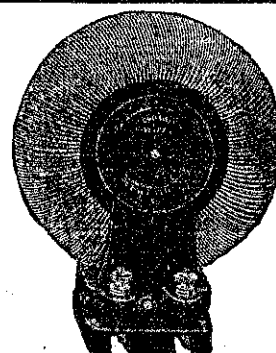
The message concluded with "Best wishes to all at home," signed, Commander Richard E. Byrd.

Both before and after this special message, personal messages were sent to residents of the Arctic and to members of the Antarctic Expedition. All was heard at good volume on the loud speaker.

gramme, which was transmitted on a wavelength of 450 metres.

The speakers referred to the prospects of a successful new year for Fiji, and also the development of wireless, special attention being given to the service broadcasting could render to Fiji in the way of disseminating market, stock, and shipping reports, and in providing musical programmes.

A little later Suva Radio came on the air, with a musical programme given voluntarily by Suva artists.



DUBILIER TOROIDS

For D.X. Amateurs
INTERCHANGEABLE

Price 17/- each	Price 13/6 each
22.5 to 45 metres	140 to 275 metres
44 to 90 metres	230 to 600 metres
65 to 175 metres	Ditto tapped 14/0

Complete with base.

A. E. STRANGE

404 WORCESTER ST., CHRISTCHURCH

From the Chatham Islands

Enthusiastic Listeners

IT is in places away from the centres of civilisation that broadcasting is appreciated to the full. The Broadcasting Company is continually receiving letters showing the great value which is placed on its service by people in the backblocks and in other isolated positions.

Such a case is the Chatham Islands, 500 miles from the coast of New Zealand. The importance of radio to the residents of the islands was told by Mr. F. W. Mitchell, the manager of a sheep farm, now on holiday in New Zealand. He came over on the little steamer "Tees" with a load of sheep for sale, and one of his first places of call in Christchurch was station 3YA.

The population of the Chatham Islands is about 500, including Maoris. There are twelve receiving sets at present, but two more are being installed. The advent of radio has revolutionised life on the islands, said Mr. Mitchell. Although they do not receive mails except at long intervals—he himself has to ride 30 miles for his mails—they are in daily touch with the life of the world. They get good reception of New Zealand, Australian, and American stations, but especially of 3YA. To that station they look for all their news, and the most important piece of news to them is the report as to the movements of the "Tees," which links them with the New Zealand markets.

All the happenings in New Zealand are closely followed—racing, football, churches, concerts, in fact, the whole broadcast service. Mr. Mitchell said he listened in to the flight of the Southern Cross from and back to Australia, and heard everything perfectly. He said it was just as good as being on the spot. Instead of being isolated for months at a stretch, the people in the Chathams are as much abreast of world affairs as are the people of Christchurch. There was now no hardship in living away from the centres of population.

Mr. Mitchell commented on the fact that when 3YA rebroadcasts 2YA the rebroadcast is generally received better than the direct broadcast from 2YA.

35 Countries Heard

FROM Pihiri Station, Gisborne, comes the following interesting note:

"We heard Berlin and Sydney talking for over two hours on Thursday last in the evening, after the day's toil was finished, and on Sunday afternoon we fixed it up on Kaiti Beach, Gisborne, and heard Captain Byrd, of Antarctic Expedition, and New York "Times" talking about one hour, and very clearly, although the weather was extremely rough, and the Northumberland steamer was just laying opposite. However, it shows what can be done with a low-wave set. We have heard about 35 countries so far, and all distinct. China has not started yet evidently, and we have not heard from Klondike."

NEARLY two and a-half million sets are registered in Germany at the present time, it is said.

FERRANTI

ALL-BRITISH

Radio Components



AUDIO TRANSFORMER.

TRANSFORMERS.

Audio—	
AF5	£1/17/6
AF3	£1/10/-
AF4	£1/1/6

Push-Pull—	
AF3c ...	£1/18/-
AF4c ...	£1/7/6
AF5c ...	£2/5/-

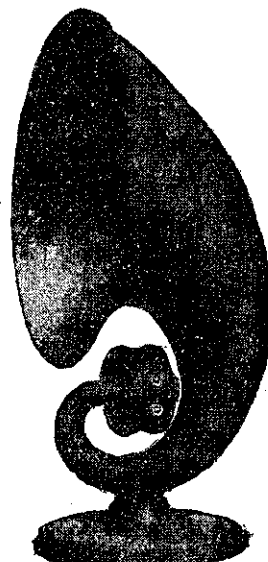
Output—	
OP1	£1/7/-
OP2	£1/7/-
OP3c ...	£1/12/6
OP4c ...	£1/12/6
OP6c ...	£1/7/-

The FERRANTI AF5 is the Transformer of Universal Appeal. To the electrically critical it shows an amplification curve that speaks volumes. To the musically critical it offers a revelation in faithfulness of Reproduction.

FERRANTI

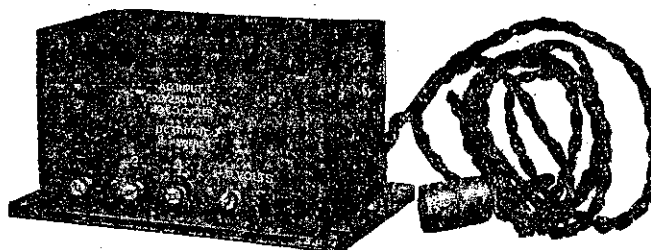
THE SUPREME TRANSFORMER.

When you buy
FERRANTI
You buy the
BEST



PRICE £4/2/6

Built on the unrivalled exponential system, ensuring unusually faithful Reproduction.



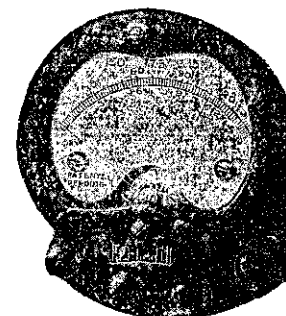
FERRANTI TRICKLE CHARGER.

PRICE £3/5/-

Instal a FERRANTI Permanent Trickle Charger. No more Run-down Accumulators! Absolutely safe and silent! No valves to burn out. No chemicals to be replaced, saves you a lot of trouble and gives you none.

FERRANTI

Radio Instruments are guaranteed to 1 p.c. of Accuracy.



RADIO INSTRUMENTS.

0-15 MA 7.5/150 V.	£2/15/-
0-30 MA 7.5/150 V.	£2/15/-
0-100 MA 10-250 V.	£3/2/6
0-50 MA	£1/17/6
0-150 MA	£1/17/6
0-1.5 AMP	£1/17/6
0-10 AMP	£1/17/6

1000 Ohms per Volt—
0-250 V. £3
0-10/50/250 V. £3/10/-
Many other Sizes and Types in Stock.

CHOKES.

B1 ...	£1/5/-
B2 ...	£1/5/-
B3 ...	17/6

DOMINION DISTRIBUTORS—

A. D. RILEY & CO. LTD.
WELLINGTON AUCKLAND

DISTRICT AGENTS—

Otago and Southland—S. VEITCH & CO., Rattray Street, Dunedin.
Canterbury and Westland—P. F. MANN, LTD., Madras Street, Christchurch.
New Plymouth—J. B. McEWAN & CO., New Plymouth.
Hawke's Bay—HECTOR JONES ELECTRICAL CO., Hastings.

Intermittent Reception.

F.W.W., Auckland, writes: "My receiving set, made by a wireless expert, has been giving me excellent results for the last six months. I have recently replaced the batteries, putting in heavy duty for the light duty type. The reception comes through clear, but with a hissing noise, which fades away, to return with great volume."

ANSWER.—It appears that there is a faulty component in the set, probably the transformer. Test this by the 'phones and battery method, at the same time check over all the wiring and the rheostat by this method. Test the C battery.

Accumulator Gives Short Service.

A.J.M., Marton, writes:—"I am the owner of a 6-valve set, and wish for information concerning the charging of my A and B batteries. I use a reliable charger, but find that it has formed heavy deposits on the plates, and the space at the bottom of the cells is entirely filled with silt. The battery does not hold its charge. The B battery seems to be going the same way."

ANSWER.—It appears that the deposit is causing a short circuit. The deposit must be cleaned out. Shake up the accumulator, and empty out its contents. Now fill it with distilled water or rain water, shake up again, and tip out. Repeat this process until no more silt is found to leave with the water. Refill with distilled water, and sulphuric acid at a density of 1.25. The battery should then hold its charge. Much light was thrown on this subject by an article in the

"Beginner Corner" some few weeks back. The correspondent would be well advised to turn up this article, as it will probably help him in his troubles.

A.W., Rotorua, writes complaining that his battery will not hold its charge for more than two evenings' programme.

ANSWER.—Here it appears that there is a short circuit. Sifting such as the above correspondent complains of may be taking place, but at the same time some foreign body may be inside the battery, and be causing a short circuit. Portion of one of the plates may have fallen loose, and similarly causing a "short." The case is one for a battery expert, but the correspondent will be well advised to try the remedy suggested to A.J.M., as the trouble may be really quite simple to locate.

Set Difficult to Neutralise.

R.D.P., Dunedin, writes complaining that his 5-valve neutrodyne set, using commercial coils spaced round on a celluloid former, is difficult to neutralise.

ANSWER.—It is evident that the coils are too efficient. There is not enough loss, and some of the energy is re-radiating. There are two solutions, first, completely shield the receiver. Within the next fortnight "Pentode" will describe a fully shielded 5-valve neutrodyne receiver, which will use commercial coils. Neutralising here will not be difficult, because of the

Questions and Answers

shielding. The details to be given by "Pentode" will be applicable to the set owned by the correspondent. Second, place a 2 to 3 thousand ohm resistance in the grid leads of the radio frequency valves.

The Baffle Board.

G.L., Otago, writes:—"I would be much obliged if you could give me information regarding the baffle used in connection with the dynamic cone loudspeaker. I have a baffle of the standard size, and wish to construct my set behind this and near the speaker. Will this work all right, or will the vibrations from the speaker interfere with the set?"

ANSWER.—Providing the speaker is not closed in at the back, everything will be all right. At the back of the speaker there must either be an opening, or a mesh, so that the sound waves may have free access. The set can be built on a shelf over the top of the dynamic cone speaker.

Dead Ends.

TWO correspondents, "N.D.C." (Auckland) and "H.G.U." (Christchurch), complain that they are unable to bring in stations on low wavelengths. In one case difficulty in bringing in 3YA on 306 metres is encountered, while in the south, 3ZC cannot be brought in. In each case, aerial and earth equipment is quite good.

ANSWER.—It would appear that the aerial coils in both cases are too long, with the result that the higher frequencies cannot be brought in. Again, the tuning condenser which controls the first coil may be of too small a capacity. Nothing smaller than .0005 should be used to cover the broadcast band. The suggestion then is to reduce the size of the aerial coil and use a .0005 condenser.

Fluctuations in Main Current.

I HAVE bought recently a 6-valve all-electric set and an expensive dynamic speaker. I am getting fairly good results, but think that perhaps they may be improved upon. Sometimes when the set is in operation the volume will begin to fade and the music or speech will become distorted. This is not an ordinary fade. The signals never fade right out, and the distortion and fade never lost more than a few seconds. I know practically nothing about radio, but think that this might be caused through fluctuation of the power in the A.C. mains. The firm from whom I bought the speaker (6-volt with rectifier) suggested that if fluctuation became a nuisance I should float 6-volt A battery across the speaker. Is this right?—NEW CHUM (Foxton).

ANSWER.—The trouble is most likely caused through fluctuations in the voltage of the power, and the best course for the correspondent is to lodge a complaint with the Power Board. If he puts his case before them and ask that the power from the mains be tested with a high-quality volt-meter while his set was operating, he could check up his reception with the voltage as registered by the meter. If it were noticed to fall as the station faded out, he could take it for granted this was the cause of his trouble. A 6-volt battery

across the speaker would have the effect of making up for the deficiency in the current due to fluctuations, but care would have to be taken that the rectified current registers 6 volts.

Regarding Short-wave.

E.A.McP. (Owaka) asks regarding a short-wave receiver:

1. Could Ferranti AF5 transformers be used?

ANSWER.—By all means. The AF5 is a good class of transformer.

2. Would it be an advantage to use A415 in the detector socket?

ANSWER: Particularly with the short-wave set, it is difficult to state any one valve for the detector. The great point is to get smooth reaction control, and this is governed by the detector valve in use. A415 gives high magnification, but its effect on reaction cannot be stated without it having been tried in the particular circuit, and under the circumstances more applicable to the case in point.

3. Could double grid valves be used as audio amplifiers?

ANSWER.—Not satisfactorily, although some good circuits have been tried out with these valves. They are more suitable as single stage amplifiers for 'crystals, as they are unable to handle great volume.

4. Could 'phones be plugged in after the first audio valve, and, if so, would an out-put filter be necessary to reduce body capacity?

ANSWER.—The first half of the question may be answered in the affirmative, and the second in the negative.

5. Could you let me know the firm making the condenser connectors?

ANSWER: Ganged condensers for short-wave reception are altogether unsuitable, and at the present time condenser connectors are rather hard to obtain. The coming season may see more of them on the market.

A Trickle Charger for Batteries.

A.J.M. (Wellington) asks for details of how to make a trickle charger for B batteries. He wishes to use the electrolytic method of rectification.

ANSWER: This is the most unsatisfactory type of rectification for B batteries. It is rather "messy," and the electrolyte needs a great deal of attention. In the "Listeners' Guide," which will be published within the next five weeks or so, there will be a special chapter which will cover the construction of transformers, for battery chargers, eliminators, etc., in a most comprehensive manner, and we can do no better than refer our correspondent to this if he wishes to construct a charger.

2. Could you give me the size of the coils for a short-wave set to tune from 15 to 40 metres? They are to be tuned with a 00025 condenser.

ANSWER: Two coils will be necessary. To tune between 15 to 30 metres, wind 3 turns on the secondary and 4 on the tickler, while to tune between 30 and 45 metres 6 turns will be needed on the secondary and 5 on the tickler.

Tuning with a Loop.

I WONDER if you could put me right as regards a little trouble I am having in trying to operate my set from a loop. The set I am using is one of my own construction, employing two stages of S.G.R.F. and one of A.F. The

Longest
Life,
Honest
Rated
Capacity



Voltage	Capacity Amp.	Price
4	60	£3 10 0
6	60	4 10 0
6	80	5 5 0
6	100	6 5 0

For SALES and SERVICE—
and have your Batteries Recharged at

BATTERY SUPPLIES, LTD.,

130 Broadway, Newmarket;
also Auckland at 3 Lower Albert Street.

L. J. PURDIE & CO., LTD.,

97 Dixon Street, WELLINGTON.

STORAGE BATTERIES FOR ALL PURPOSES
WATKINSON'S LTD.
STARTING-LIGHTING-IGNITION EQUIPMENT

261-265 Tuam Street, CHRISTCHURCH.

(Between Madras and Barbadoes Streets).

J. & A. P. SCOTT, LTD.,

Corner Albany and Leith Streets, DUNEDIN.

loop being used is also home-made and is 2ft. square, having eight turns on each side, with 3-Sth between each turn. The trouble experienced when using the loop is that it makes the dial of the first r.f. stage read too low. When I tune in 2YA, using the outdoor aerial, the three dials read 50 each, and when the loop is used I have to bring the first r.f. dial down to 50 to be properly tuned, the other dials remaining the same as before. You can see from the above that it is impossible for me to tune a station much below 400 metres when using the loop. I have tried taking a turn of each side of the loop and found it made no difference.—G.J.W. (Greymouth.)

ANSWER: A loop antenna is to be connected to a set so as to replace the aerial coil. The correspondent has included a diagram which shows that he has made an erroneous connection. The outside of the spiral should be connected to the end of the variable condenser that tunes the aerial coil that goes to the grid of the valve. The inner end must be connected to the other plates of the condenser, and so to the filament of the valve. Thus the aerial coil is cut right out of the circuit.

The Browning Drake.

W. G.K. (Dunedin) has written stating that his Browning Drake is not giving him satisfaction, and that he wishes to rewire it. He states that he would like a copy of the "Listeners' Guide" in which this was described.

Unfortunately the 1928-29 edition is now sold out, but the new issue is now well in hand, and should be out within the next five weeks. Considering the interest displayed in the Browning Drake it will be redescribed with all the most recent additions, e.g., the parallel plate feeds. Apart from the conventional type there will be a diagram of the all-electric B.D., and in all probability full details of the screen grid transformer coupled model.

The screen grid valve has already been applied to the B.D., but it has unfortunately thus lost its character. At the present time the transformer coupled set is being worked upon, and if complete will be described in the new edition of the Guide.

Can't Get Lower Wavelengths.

I HAVE a six-valve single control set, and until four months ago everything was OK. Since then, under the same conditions, except that the valves have been replaced with two continental and four radiatrons, I cannot get stations on the lower wave-lengths (below 280 metres) and between 280 and 340 normal working of the machine (except volume not so much) above 340 I find that if I place a variable condenser in series between the bottom end of the coil (just in front of the E and A connections) and earth I can get good volume, but not so clear.—**RECORD READER** (Westport).

A Corner for Beginners

A Unique Exponential Horn.

I INTENDED to try my hand at making the exponential horn, but was unable to get any wall-board in Te Kuiti, so rather than be without one, I decided to make one out of paper. I pasted 12 thicknesses of newspaper together and this made a fairly stiff board of the right size. This can be cut with a sharp knife. I found that this makes a fairly good speaker, although it needs a strip of thin board about 1/2 in. wide run round the mouth of it, to stiffen it. Each board must be dry before it is cut, and even then the speaker is a little bit limp until it is dried, on account of having the paste strips of paper inside and outside the joins.

It has one advantage over others, that it is very light; also it can either be painted or cloth can be pasted over it.

I find an annoying rattling develops in the speaker unit. This does not appear in the small horn, but spoils reception in the big horn. I have altered the screw at the bottom, but this does not stop the rattle until the music vanishes to almost nothing, yet when I return the unit to the little horn the rattle is not noticeable. Can you suggest a cure?

I find that the set does not deliver enough power to drive the large horn, although the small one has about three times the volume.—**F.M.** (King Country).

The innovation is a novel one, but it appears that the paper is absorbing

ANSWER.—Evidently the change of valves has caused the set to become demagnetised, and the cure is obvious. Methods of neutralisation have been frequently described in the "Record." Placing a condenser in series with the aerial and earth adds to the inductance and allows of tuning to shorter wavelengths and gives greater tuning range.

E.R.D. (Christchurch) writes: I have a two-valve set, but fear there is something wrong with the coils. Could you tell me how many turns to put on, using a three-inch former? How many coils would I need and where should I join them?

ANSWER.—Only one coil is necessary, and that is the aerial coil. This may consist of 65 turns of 22 s.w.g. wire (space wound if enamelled), when tuned with a .0005 variable condenser. If a .00035 condenser is used, 68 turns must be put on. One end of this goes to the tuning condenser, than to grid condenser, and the other to condenser then to A, and so to earth. The correspondent's diagram shows A+ going to earth.

The aerial is brought in at a tapping 18 turns from the earth end.

much of the volume. It should have been shelled thoroughly and left to dry. Several coats would have made it more impermeable to soundwaves. The rattle is probably due to something being loose. Either some of the sheets or ends are not properly glued together.

Bad Connections.

A GOOD circuit and a good receiver may be utterly spoiled by bad connections. These may appear neat enough, but may be so arranged as to set up hand-capacity and occasion other evils. Lead should not run in absolute parallel, but should cross and travel at an angle. In most circuits the components are arranged so that this system will be easy to adopt.

It is unwise to use very thin wire possessing a naturally high resistance. The other extreme should also be avoided—the use of very thick wire, difficult to manipulate, and impossible to accommodate on a terminal shank when two connections have to join there.

A safe medium is No. 20, a gauge frequently advised when circuits are detailed. This is sufficiently pliable to permit easily wiring, but stout enough to retain its position without sagging and making contact with a neighbouring wire. If this appears possible, however, take the precaution to insulate one of the adjacent connections with "sleeving."

Too much of this insulating material causes internal capacity, which will probably upset tuning, especially that of the weaker signals. These may disappear when the hand is removed from the condenser knob.

Set Refuses to Oscillate.

IT sometimes happens that the set works at remarkable volume on a near station, and yet will not bring in distant transmissions. A set which functions thus, is, to all intents and purposes, a "local station only" receiver. Its range is about 30 miles. It will not receive over longer distances because it refuses to oscillate and is therefore lacking in sensitivity.

Lack of oscillation is a trouble which arises from any of several possible

causes. A high resistance rheostat in series with the filament of the detector valve is one of them, and the most likely. Another is a falling-off in the voltage of the accumulator due to deterioration or to a "short" between the plates. A reaction coil connected the wrong way round will absolutely prevent oscillation, and if the reversal does not correct matters, a faulty grid leak may be looked for.

When the Set Howls.

WHEN a set is worked in a state of oscillation and transmits interference a wave is radiated which varies in length as and when the tuning of the receiver is varied.

This explains the variation in tone of an interfering note. The transmitted wave is nearly the length of a wave the careless operator is trying to receive, and therefore approximate to the wave his victims are actually receiving with distressing interference. It is impossible for the victims to tune out interference, for the simple reason that the culprit, in varying his tuning crosses and recrosses the wave-length upon which or to which sets in the vicinity are tuned.

When Volume Decreases.

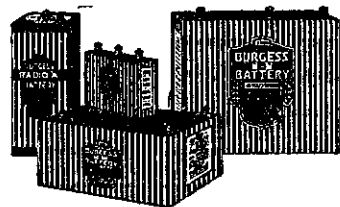
GIVE the A battery a good charge when a sudden decrease in volume is experienced. Test the B batteries with a voltmeter.

Operate the set for about fifteen minutes, and while the set is turned on apply the voltmeter to the B batteries. If they are rested after the set is idle for a period, the batteries will recuperate and show an increased reading. When the batteries are all in good working order, look for a defective valve. If the valves have been in operation for more than a year, it is possible they need replacing.

Position of the Speaker.

TO get the best results from a loudspeaker, it should be shifted about the room and even the entire home. Furthermore, the volume should be regulated according to the size and the nature of the room.

A large room can take more volume than a small room, while a sparsely furnished room will take less than a well-furnished and heavily draped room. It is well to remember that the loudspeaker is not necessarily chained alongside the receiver. Move it about with an extension cord or wiring, so as to be able to get the best results.



**BURGESS
RADIO
BATTERIES**

Right Royally Entertained

is he who—buying with good judgment—desires the utmost in reproduction, long range, appearance and economy and finds these in—

**KING
NEUTRODYNE**

Not only in name a king, but, in actual fact, a ruler of space.

Australia's talent commanded in your armchair.

Several Models for your Choice.

F. J. W. FEAR & Co.

63 Willis Street • Wellington.



A single control 6-valve KING set, an epic of simplicity, selectivity, and range.
£27 10s. Od.
With valves.
Money Can Buy No Better.





Cookery Nook

Quick Coffee Cake.

One-third cup of lard (or dripping), 1 tablespoon salt, 1-cup of sugar, 1 egg (slightly beaten), 1½ tablespoons "Anchor" milk powder, 2½ cups flour, 4 teaspoons baking powder, ½-cup raisins, 2 tablespoons sugar, 1 teaspoon cinnamon, 1 cup water. To make the milk: Mix the water and the milk powder according to directions given. Method: Mix melted fat, sugar, egg, and milk; sift the flour, salt, baking powder, and add to other ingredients. Add a few chopped raisins. Pour the mix into greased cake-pans, and sprinkle with

mixture of sugar and cinnamon. Bake in hot oven 15 or 20 minutes.

Crepe Parisienne.

Ingredients: 2lb. potatoes, 8 leeks. Cut up both finely. Cook the leeks lightly in a saucepan with a little butter and add the potatoes. Next add 6 pints of veal broth, and a pinch of salt and pepper. Cook slowly for 20 minutes. Chop a little sorrel finely and cook separately. Serve with soup, together with some small pieces of dry crisp toast.

Poulet d'Artois.

Ingredients: A chicken weighing 3lb. when cleaned and flared, 6 fresh artichoke bottoms, ½lb. button onions, ½lb. carrots (cut bell shape). Cut the chicken into 2 wings, 4 pieces of breast and 4 pieces of leg. Season with salt and pepper. Place in a shallow saucepan with a little butter and the artichokes cut up into small slices, and cook in a slow oven for 25 minutes, turning each piece time after time. When cooked remove from oven and arrange chicken on a dish. Add to the gravy remaining in saucepan a glass of Madeira wine (meanwhile shaking saucepan), a tablespoonful of cream to finish off, and pour the whole over chicken. Cook the button onions and carrots separately and arrange them in bouquets around the chicken.

Crepes (Pancakes) Marcelle.

Ingredients: ½lb. flour, 3 eggs, 1 pint fresh milk, a pinch of salt, 1oz. sugar, a tablespoonful of cognac, 2oz. butter (melted), ¼ of a stick of vanilla. Mix the flour and eggs together with a whisk and add the milk slowly, the salt next, with the sugar, cognac, melted butter, and vanilla. Mix well and pass through muslin, the mixture now being ready to make pancakes in the usual way. Chop very finely 8 macarons and mix with the juice of an orange, 1 glass of curacao, 1 glass of cognac, and a piece of butter. Spread this mixture over the pancakes when cooked, roll them and "powder" with a little castor sugar and serve hot.

Sparkle on Your Table.

DECANTERS lend a cheerful sparkle to the festive table, but see that they are scrupulously clean within as well as without.

Decanters in which wine has been kept often become stained by the sediment deposited on the glass.

Small shot is usually used to remove such stains, but when they are not available a small handful of glass beads make a very efficient substitute when placed in the decanter with a little water and well shaken.

If the stains are very obstinate add ammonia to the water or use a strong solution of salt and water.

THE WOMAN'S POINT OF VIEW

By "VERITY"

Indifference to Poetry

(By the Hon. Eleanore Norton, in the "Morning Post.")

I CANNOT quote any definite statistics, but I imagine only one person out of a thousand cares for, understands, or even reads poetry.

Naturally this indifference does not apply to a small, appreciative section of the people, those who would never confuse Dryden with Donne, who buy each new Anthology, and to whom a fresh volume by Masfield or Woolf is a real event.

But, alas! they are very much in the minority, for most of our even cultured contemporaries are too materialistic, lazy, or busy, to appreciate poetry—in a sense the most divine of all the arts.

It is a pitiful state of things, for the value of poetry in modern life cannot be disputed, even by the most unthinking minds. And this, I think, applies to a great deal of our modern poetry, and not only to the immortal music of an older day.

Divinest Hopes, the Purest Passion.

Above the din, the speed, and the selfishness of modern life can be heard the lovely voice of the Muse Erato, pleading for wider recognition, as if she alone knew that in poetry are embodied the greatest prophecies, the divinest hopes, and the purest passion yet evolved by humanity.

It is a truism that in the soul of every man lies a spark of poetry (at times unconsciously). Therefore to its creators should be accorded the practical response of the multitude.

Certainly there exists a tradition that the poets should—financially speaking—be left alone. Does not the Muses of Poetry thrive best on bread, and water, and might she not grow silent on a diet of truffles and red wine? Yet surely the stars lose their splendour when the poet is hampered by lack of means, and the wings of his spirit trail in the dust, instead of soaring through the dawn.

Sorrow he must accept with reverence, for sorrow is the Mother of Poetry, but let the nation see that he is not resigned to sordidness. I wonder, were a grateful nation to subsidise its poets, if their inspiration would vanish with the advent of a larger bank balance?

The Uncrowned Kings of Earth.

To counteract this indifference to poetry, I should like to see all the poetry-loving people of Britain rise, as it were, in a band, and fight for its enthusiastic recognition and consequent sale.

Let me remember that in this work the British Broadcasting Corporation is beginning to take part, by the broadcasting of poems both old and new.

It is possible that one not very distant day, the Press of all nations may, as a matter of course, publish poetry

Novelties

Flittering Mules.

BOUDOIR slippers covered with shining gold and silver paillettes are a novelty which will appeal to the woman who goes in for the elaborate type of rest-gown. The slippers are made in the "mule" shape, and are lined with satin in various shades. Both the high heel and the front of the slipper are completely covered with a close mesh of the paillettes.

Openwork Hat.

HALF-INCH strands of beige felt, held together by a network of thick gold threads, make an original little hat for afternoon wear. The hat is made in the close-fitting cap shape, with a small wing of felt placed at one side, and the model is unlined, so that the wearer's hair shows though the strands.

Gold and Silver Trimmings.

PARALLEL lines of gold and silver ribbon used alternately make an original trimming for a frock of slate blue crepe romaine. The frock has a draped skirt with an uneven hemline, and no sleeves, but it can be converted into an afternoon gown by the addition of the three-quarter length coat, which is also trimmed with rows of tinsel ribbon on the wide sleeves.

Toadstool Lamp.

A TOADSTOOL, with windows and doors cut out of the stalk and a flight of steps up to the front door, makes a lamp which children would welcome as a Christmas present to the nursery. The stalk, which forms the house, is made in coloured china, and the top of the toadstool is imitated by a shade of reddish-brown parchment.

Flower Necklaces.

LARGE flowers made in opaque glass, with a small crystal set like a dewdrop in the centre of each are strung together to form pretty necklaces which look their best when worn with a light evening dress. The trinkets are made in pink, blue, yellow, or green. If flowers are worn on the dress they should be similar in shape and colouring to those of the necklaces.

which would shine out as a lovely jewel among the crimes and accidents that form such a great part of our modern annals.

If this comes to pass, am I wrong in thinking that the nations would be blessed and purified? For does not the peace and wisdom of God, which passeth understanding, lie in the great heart of poetry, and are not poets the uncrowned kings of earth?



Radio Pancakes

Now and again some good cooking hints come over the air—but the wise housewife doesn't rely on them alone—she sends for the new "Anchor" Recipe Folder, and keeps it on hand. Like a copy? It's free. Write "Anchor," Box 844, Auckland.

ANCHOR
SKIM MILK
POWDER

Annotations of Annabel Art in New Zealand

DEAREST:

The vanguard is upon us of autumn modes, after short breathing-space 'twixt one season and the next. Summer hats wilt before our eyes, and purchases of a moon ago have lost their pristine glow and grow duller every minute, in that strange way coincident with appearance of "new goods," carrying with them eternal fascination of the novel and unknown. Welter of confusion inseparable from vast building improvements has subsided, and on dit that one establishment of dignity and quality intends making sartorial splash at the end of the month, showing new and splendid treasures to be achieved with much fine gold by Aladdin's Eve.

Here and there forlorn garments remain ticketed in plate-glass windows, as a reminder to the thrifty that 'tis not too late to amass frocks and frills at magic figure of Half Price; but lure of change is upon us, and we move with the rising tide of fashion, discerning in mind's eye faint gleams of glory that is to be. Unlike the pious maiden in the poem, we shall be fair to outward view and radiantly arrayed, judging from advance view of brocade and chenilles of sheen and colour unparalleled, which might have adorned Scheherazade when engaged in her ancient and modern pastime of spinning tales for the beguilement of Himself.

If it chances the exchequer is not at its brightest and best, try effect of carefully-cut slit, star or crescent-shaped or arrow shooting into the air, in front of last year's felt or velour, artfully arranging a flat curl in the gap, and thus achieve effect of the bizarre and le dernier cri at one and the same moment. News comes of coats of velvet that will console us in the winter of our discontent, preferably matching at least one evening gown. A black one is lavishly trimmed with astrakhan, that fierce fur which calls for a wearer of martial mien; or, donned by our so gentle sex, at least an "army man" for escort, Russian for choice!

When the day dawns, that day of leisure and loafing that beckons to some of us as insistently as ever it did to Charles Lamb in the dingy office which prisoned the flying feet of the gentle wanderer on slopes of Parnassus, 'tis my intention to become a pamphleteer and write a kind but

searching brochure on Manners and Mistakes of Shop Assistants on the principle of the old maid who wrote a treatise on proper treatment of babies. For never have I served behind a counter, and probably never shall, though convinced I should prove a success in that far from arduous calling.

QUITE lately I asked in a well-known shop for a well-known book by a well-known author. The youth with shining hair, who pursues a crust and a pleasant avocation at one and the same time, detached himself unwillingly from a voluble cobbler, and swivelled upon me the reproachful eye apt to be turned upon deliver for late anthology, essays causing a stir in the world beyond, or handful of plays in convenient form.

"Gods of Grub Street!" he remarked listlessly. "We had one copy, but that's gone. You should have come before! Hardly anyone asks for it," he vouchsafed in farewell. When, one wonders, shall we reach the ultima thule of ye very perfect. Booke Shoppe, with an intelligent vendor sans peur et sans reproche?

WOOD and married and a', Ethelwyn has returned from touring Europe, having added to her already not inconsiderable possessions a husband of sorts, some wonderful Lido pyjamas, and a babet of two precocious summers, whose Olympians very wisely condemn him to silence and inertia before 7 a.m., when early morning tea breaks the spell. Yesterday, friendly and confiding, he chatted to male parent at unconscionably early hour, but met with no response. Greatly daring, he turned blue eyes and wheedling tones upon our Ethelyn, who also proved adamant. Undaunted, "B-gg-r!" remarked loudly to himself this scion of the coming race!

THE gentle art of entertaining is rendered more difficult by out-moded manners and snobbish self-importance occasionally cropping up; or perchance rival factions contradict or ignore conversation from the other camp which perchance results, in happy-go-lucky but socially-congested flat, in something like a "party in a parlour all silent and all d—d!" There is also the elderly visitor who takes herself seriously and disapproves of cigarettes and cinema. We all know that dear spoilsport and exponent of other times, other manners. "Why, Annabel!" wheezed a Scottish cousin-once-removed, as she surveyed my print of that vision of grace, the Botticelli Venus, through terrifying lorgnette of a past decade. "Is it possible, my dear, that you leave that picture hanging on the wall when there are Gentlemen present!"

"He and the Duchess always turned their backs
On those whose conduct was the least bit lax.
Where'er they went they waved a moral banner,
And constantly left rooms in a marked manner."
Your ANNABEL LEE.

ART, in its several manifestations, shows little tendency to flourish in our democratic country; which, though it has proved itself signally successful in business acumen, health of babies, tourist propaganda, and like laudable and humane achievement, possesses little bent and less enthusiasm for the things of the spirit, the altitudes of Parnassus.

But in time we shall change all that, or so it is hoped. And in pursuit of that devoutly hoped for consummation, comes a greatly daring quarterly, "Art in New Zealand," of which already two numbers have been published.

Here perchance is the little heaven that leaveneth the artistic lump. One views this journalistic venture, however, with optimism combined with trepidation. For, as Dr. Campbell Duncan remarks in an attractive article therein concerning Art and Artists, "Nothing can survive without encouragement"; and intelligent co-operation from the layman is essential to render successful this charming medley of colour, craftsmanship and literary achievement, so provocative of interest and essentially of our own country.

The reproductions are excellent, including a characteristic landscape by Nugent Welch; zinnias that exemplify Miss D. K. Richmond's singularity and brilliance of workmanship; sunset waters of W. Menzies Gibb; Mrs. Wallwork's pastel portrait of a dark-eyed "Patrick"; examples of pottery by Elizabeth Lissaman, with explanatory notes thereon; while Mr. Charles W. Kerry makes a very human plea for tolerance in the making or marring of music, and exposition of the need of it by the man in the street.

From the S. P. Andrew studio appear examples of camera work, ranging from lifelike portrayal of the revered Rabbi of the Capital City, to miniature of Lady Lucy Jellicoe and a lovely study of the Unapproachable Pavlova.

Original and arresting is the literary matter, notable in the poetry being Mr.

C. R. Allen's "Interrogation" and some verses of remembering love by Miss Eileen Duggan; while the art of the short story is exploited by Mr. C. R. Marris's vivid sketch in the modern manner—an impression of some vacillating hours etched in a few indelible strokes.

Wind-swept karakas by Marcus King remain in the memory; also affectionate reminiscences of that well-beloved painter, the late "Jimmy" Nairn, by Mrs. M. E. R. Tripe, who also has an illustration of a characteristic study of a girl. Mr. Arch. F. Nicoll contributes, in addition to a strikingly realistic portrait, a few wise observations on the influence on art of the Dutch Van der Velden; and Mr. Alan Mulgan ably dissects difficulties that hedge around the novelist who aspires to write an epic of our islands.

No dullness, no perfunctory letterpress; but fresh, abiding merit and enthusiasm, backed by artistic faith and courage. A refreshing publication, and redolent of the atmosphere of New Zealand.—R.U.R.

Beetroot Wine

PEEL and slice 1lb. of beetroot to 1 quart of water. When well-cooked strain off and add 3lb. of Demerara sugar and 3 large lemons.

To every gallon of liquor allow 8 cloves and four pieces of root ginger; tie them in a muslin bag and pop it into the wine. At the same time you will allow 3oz. of yeast to the gallon, and leave to work.

Cork lightly till it has finished working, then when this is accomplished you can seal it up and put it away in a dark, cool place for a year. At the end of that time you will bottle it off. To get a clear wine it is advisable to use a narrow piping (such as the plumber uses would do), one end in the barrel and the other in the bottle. The bag of spices, of course, will have done its work and is left at the bottom of the empty barrel.

A little brandy added when bottling improves this wine.



They Change So Quickly!

Take snapshots now before it is too late. Children change so quickly, that you cannot remember their babyhood, their baby ways, without a happy little snapshot that will never change. Get a Kodak today—and load it with British-made Kodak Film, the speediest film, sold the whole world over in the yellow box.

Send for Catalogue.

Kodaks from 30/-

Brownies from 10/6

A1

OF ALL KODAK DEALERS

When your throat pricks
take
Pulmonas
RELIEF BY INHALATION
FOR COUGHS
AND COLDS

Next Week's Features

1YA Notes

DIVINE service for Sunday evening will be broadcast from St. Mary's Cathedral, Canon Pervical James being the preacher, and Mr. Edgar Randall the organist.

Following the church service a programme will be broadcast from the studio, an outstanding item of which will be the presentation by the Bohemian Trio of a selection of negro spirituals. These plantation songs, or spirituals, were the spontaneous outbursts of religious fervour among the American negroes, and were the negroes' own interpretation of the Scripture as preached to them by their own religious leaders. Appearing for the first time from 1YA will be Mrs. Victor Salek, whose contralto numbers will include "Abide With Me" (Liddle), and "Ships of Arcady" (Head). Bass solos to be given by Mr. Arthur Colledge include "Tis Jolly to Hunt" (Bennett), and "Within the Sacred Portals" (Mozart). A number of instrumental gramophone selections will be introduced, including "Schubertiana" (arranged Finck). This was recorded in commemoration of Schubert's centenary, and the fine arrangement will introduce most of the well-known compositions, such as "The Erl King," "Rosamund Ballet Music," and "Overture," "March Militaire," "Unfinished Symphony," and "Serenade."

HALF an hour of "Chu Chin Chow" will be the feature of 1YA's programme on Tuesday evening. The excerpts from this phenomenally successful stage attraction will be produced under the direction of Madame Irene Ainsley, the cast comprising Miss Marjorie Fair, Miss Airini Rogers, Mr. Leo O'Malley, and Mr. Arthur Ripley. All the principal solos and choruses will be sung.

THERE will be an excellent miscellaneous programme supporting "Chu Chin Chow." Miss Marjorie Fair will sing "Two Bird Songs" (by Lehmann), and Miss Rogers will sing Rashbadi's "Trees." A tenor solo by Mr. Ripley will be "My Dear," and "Queen of the Earth" will be sung by Mr. Leo O'Malley, baritone. Instrumental music will be provided by the Studio Trio, and there will be relays from the Majestic Theatre, where the

orchestra is under the baton of Mr. Whiteford Waugh. Miss Gladys Gamman, the well-known Auckland elocutionist, will give three fine numbers on Tuesday evening: "A Gentleman of France," "The Lesson of the Watermill," and "The Hindoo's Paradise."

AN excellent band concert will be heard from 1YA on Wednesday evening. Adjutant Pace, who has recently arrived from Australia, has arranged a fine programme for his men, the Salvation Army Congress Hall Band. The vocalists for the evening will be the Lyric Quartet (male voices) and Miss Joy Taylor. Concerted numbers will be "Come Back to Erin," the humorous "Mosquitoes," and Sullivan's "The Long Day Closes." A duet by Messrs. Richards and Thomas will be "Be Mine the Delight." Mr. A. Ripley will sing the tenor solo "Who Knows." There will be a humorous interlude by Mr. Alan McElwain. Among Miss Taylor's numbers will be two operatic solos, "Softly Awakes" and "Flower Song." Miss Ivy Taylor is a mezzo-soprano. She has not been heard over the air since the early days of broadcasting in Wellington. Since then she has been absent from New Zealand, and during her long sojourn in Sydney she has broadcast from Australian stations.

THERE will be two one-act comedies, comprising in all twenty-seven minutes of humour, on Thursday evening. The comedies are called "The Lost Silk Hat" and "An Island Romance." They will be presented by "The Strollers," consisting of four accomplished radio performers. Two quartets to be sung by the Olympians will be "Good Evening" and "Sleepy Hollow Tune." Miss Dorothy Youd will sing "Pierrot at the Dance," and Miss Martha Williamson will sing "Rose in the Bud." Mr. Lambert Harvey's tenor solo will be Ronald's "Down in the Forest." Mr. Geoffrey Colledge will sing "The Handyman" and "Invictus." Selections by the Studio Orchestra will be "Musical Jigsaw," "Schumann's Songs" (a song suite arranged by Friml), and Lehar's "Count of Luxembourg."

AN interesting feature of Friday evening's programme will be the first of a series of "Half Hours with the Great Composers." On this oc-

casion Henry Purcell will provide the theme for Mrs. Daisy Basham and Mr. William Gemmell. Other vocalists for the evening will be Miss Margaret Cameron (who will sing "Villanelle"), Miss Phyllis Darling ("Far Across the Desert Sands" and "Sacrament"), and Mr. Arthur Colledge (whose numbers will be "Old Barty" and "Rolling in Foaming Billows"). There will be two vocal duets. Miss Mollie Wright (cello) and the Auckland Trio will provide some of the instrumental music, being supplemented by special records. Mr. Gemmell needs little introduction to 1YA listeners. He has also sung on many a concert platform throughout New Zealand. He has appeared as soloist with the Royal Auckland Choir, Royal Apollo Club, assisted the Caroline Bay Association, Dunedin Philharmonic Society, and has been conductor of the Beresford Street Congregational Church Choir for many years.

CONTRIBUTING to the vaudeville programme on Saturday evening will be the popular vocal trio, the Snappy Three, singing the latest hits. The vocal and instrumental duo, the Bohemians, will also present some of the latest popular airs. Humour will be provided by Mr. T. T. Garland, and a very bright programme will be played by the Studio Orchestra.

2YA Notes

ON Sunday afternoon, March 3, a particularly interesting relay will take place from 2YA in the description of the ceremony of presenting the colours to the First Battalion of the Wellington Regiment, by His Excellency the Governor-General, Sir Charles Ferguson. This is a ceremony quite out of the ordinary in the Dominion, and its broadcast description will constitute a notable event.

In the evening of Sunday, the 3rd, the successor to the Rev. Ernest Weeks, who was so favourably known to broadcast listeners, the Rev. C. Wickham, will make his initial appearance on the air in New Zealand.

AT the conclusion of the relay of the evening service from the Terrace Congregational Church, a studio concert will be given. The soloists will be Miss Myra Sawyer (soprano) and Mr. Wm. Boardman (bass), and Mr. E. W. Robbins (tenor). Miss Myra Sawyer, whose work is well known all over the Dominion, having been soloist with various societies at different times, will sing Bishop's "Bid Me Discourse," "The Tryst" (by Sibelius), and a duet with Mr. Boardman, "How Long in Torment Sighing" (by Mozart). Mr. W. Boardman's solo items will include Buononcini's "Proud and Peerless," Mignon's "Slumber Song" (by Thomas). The well-known tenor solo from Stainer's "Crucifixion," "King Ever Glorious," will be Mr. E. W. Robbins's first item on the programme, two songs with violin obligato, "Elegie" (by Massenet) and "For You Alone"

(by Geehl), being his other numbers. The obligatos in each case will be played by Miss Ruth Reid, a talented young violinist, well known in musical circles in Wellington.

ON Monday those interested in Maori pronunciation will have the opportunity of listening to a further talk at 7.40 by Mr. Hare Hongi. On this evening the orchestra will present a programme of well-chosen classical music. Supporting artists on the programme will be Miss Aileen Kimball, soprano, Miss Pauline Rodger, lately returned from Sydney Conservatorium, Mr. Clause Moss, baritone, and Wellington's popular favourite, Miss Nora Greene. Mr. Victor Lloyd will relay another of his unconventional experiences.

ON Tuesday, the 5th, the orchestra will devote the evening to popular music. At the conclusion of the studio concert, dance music will be given from 9.30 till 11 p.m. The outstanding feature of the programme throughout the evening will be songs by Mr. James Osborne, tenor. His numbers include "The Carnival" and "Lolita." Other performers of note will be Miss Margaret Buckeridge in "Join the Navy" and "Somebody's Sweet is Sweet on Me." The popular Mr. Billy Hart will reappear in conjunction with Mr. Silver in popular songs. Mr. Edward Silver is a singer of note with extensive Home experience. He was a member of the original Dixieland Band at the London Palais de Danse and Romano's Restaurant in the Strand. He has also had the advantage of comprehensive provincial tours throughout Britain.

ON Thursday a relay from the Town Hall of a special concert being given by the pupils of the Hawera Technical and Hawera Main Primary Schools will constitute a treat for listeners. An orchestra of 50 members has been trained by, and will be conducted by, Mr. H. C. A. Fox. The balance of this combination is outstanding, and on the occasion of his hearing a performance in Hawera some months ago, the late Prime Minister, the Hon. J. G. Coates, said it was one of the finest combinations he had ever heard. The Wellington public, as well as listeners, may therefore look for an especially pleasurable entertainment on this evening.

OPERATIC selections will provide the programme for Friday evening. In addition, the ever-popular Philharmonic Quartet will contribute to the vocal portion of the programme with both new songs and some of the old favourites.

ON Saturday evening, prior to the musical programme, a Talk on Athletics will be given by Mr. N. R. Jacobsen. This is the popular night at 2YA, and the Melody Four will be to the front in further numbers from their extensive repertoire. A new singer will appear in the person of Mrs. Eleanor Hempton, her numbers being "Il Bacio," the "Feast of Lanterns," and

Get ALL your Set can Give

MOVING COIL UNITS Price £8/15/-.

EXPONENTIAL HORNS—104 INCH £9/10/-

6-VALVE CROSLY BANDOBOX Now £17/10/-

Equipment Extra. Terms if desired.

G. G. MACQUARRIE LTD.

CROSLY RADIO SALES
AND SERVICE

Radio and Electrical Repairs at Shortest Notice.

95 WILLIS STREET, WELLINGTON.

'Phone 45-865.

"My Lady Chloe." From 10 till 11 p.m. a special dance programme will be given.

THE Sunday evening concert, to follow the church service, will be of note, in that Madame Emily Briggs, Miss Edith Buckmaster, and Mr. S. E. Rodger will contribute well-chosen numbers. Madame Briggs' songs will be "I Will Extol Thee" and Gounod's "Serenade." Mr. Rodger will sing the "Psalm of Life" and the "Devout Lover," while Miss Buckmaster's numbers will be "The Home Songs," "The Little Silver Ring" and "There is a Pearl for Every Tear."

3YA Items

ON Sunday afternoon 3YA will broadcast the St. David's Day service which is to be held in the Christchurch Anglican Cathedral. The preacher will be the Very Rev. Dean of Christchurch and the organist for the occasion will be Mr. Alexander Owen.

The after-church concert from the studio on Sunday evening will include items by Miss Hilda Blechynden, Mrs. E. H. Davies and Mr. John Worgan. A very fine series of gramophone records will also be broadcast.

THE opening number by the Municipal Band on Monday evening will be Rimmer's popular march, "Ravenswood." Another of Rimmer's works, a fantasia called "Le Cinque," will also be played. Other band items for this evening will be the waltz "Ecstasy," the hymn "Nearer My God to Thee," the selection "Normanhurst," and the march "Argandah"—a fine and varied programme arranged by Mr. A. Schnack.

OTHER instrumentalists to play on Monday evening will be the Studio Trio. The vocalists will be Miss Sylvia Marshall, Miss Eileen Irwin and Mr. Arthur T. Couch. Miss Irwin will sing "Caprice Viennois" (Kreisler), "La Serenata" (Pablo-Tosti) and May Brahe's "That's All." The songs by the other artists will all be of the popular type. Mr. Arthur T. Couch will be specially looked forward to because of the magnificent rendition which he gave to his songs (two of them in Maori) when last he sang for 3YA, on February 18. On this occasion he will sing another of his songs in Maori.

PRINCIPALLY operatic will be Wednesday evening's programme, and it will be an entertainment of rare merit. One of the vocalists will be Miss Dulcie Mitchell, whose items will comprise a "Che Faro" (from "Orfeo ed Euridice"), the well-known "When You Come Home" and "I Got a Robe" (a negro spiritual). Miss Cicely Christian will appear again after a long absence from the microphone. Her items will be "Lorraine, Lorraine, Loree" and "Sing, Joyous Bird." Mr. Harold Prescott will sing "Ah, Moon of My Delight" (from "In a Persian Garden") and "English Rose" (from "Merrie England"). Another fine singer for this evening will be Mr. Fred C. Penfold, whose numbers will be a solo from "Irene" and "I Am Fate." The instrumentalists will be Miss Maud K. Stout and the Bohemian Quintet. There will also be special

records. Elocutionary numbers will be given by Miss Kathleen Chapple.

ARTHUR SOMERVELL'S charming song cycle, "Windflowers," will be presented on Thursday evening by Miss Frances Hamerton's Melodious Four. This will be followed by a miscellaneous programme. Two vocal solos to be sung by Mr. T. D. Williams will be "Glorious Devon" and Moussorgsky's "Song of the Flea."

TWO fine elocutionary numbers are to be given on Thursday evening by Mr. W. H. Moses—"The Children's Hour" and "The Saxon and the Gael," the former by Longfellow and the latter an extract from "The Lady of the Lake," by Sir Walter Scott. Mr. W. H. Moses is a regular contributor on the elocutionary side of 3YA's programmes. During the last seven years he has been successful at competitions, winning a score of prizes, including fifteen firsts. In Wellington he won the sight-reading prize and the New Zealand test recital. In 1924, in Christchurch, he again won the sight-reading and carried off the gold medal. The prizes won by Mr. Moses are for reciting, singing, impromptu speech, and debate, character recital (Shakespearean), humorous songs, story without words, and pronunciation. Mr. Moses is a member of the relieving staff of the Canterbury Education Board.

"OUR MISS GIBBS," the very popular musical play, by Caryl and Moncton, will be given a radio production by the Radiolians on Friday evening. This will be a thoroughly enjoyable entertainment. Humorous elocutionary numbers will be given by Mr. James Rodger. Instrumental music will be provided by the Studio Trio, and by the Bailey-Marston Dance Orchestra.

A SPECIAL attraction on Friday evening will be a novelty turn provided by Mr. Franc. Hanalei. He is an expert in playing native instruments, and has appeared in Hawaiian items at all the leading theatres and on picture circuits in New Zealand. He will present a ten-minute entertainment of the dreamy melodies of Hawaii, electrical hits from the land of jazz and popular song airs.

SATURDAY evening's programme from 3YA will be pure vaudeville, two hours of unique entertainment provided by the Revellers Concert Party.

4YA Features

ON Sunday evening, March 3, the evening service from the Hanover Street Baptist Church will be relayed, the preacher being Rev. E. S. Tuckwell, and the organist Mr. Upton Harvey. The musical director is Mr. H. P. Desmouins. After the service a studio recital of gramophone items will be given.

DURING the afternoon session on Tuesday, March 5, the afternoon tea music from The Ritz will be relayed, when a special programme has been arranged by the musical director, Mr. Thos. J. Kirk-Burnand.

MR. CARL MOLLER, elocutionist, will make a welcome reappearance before the microphone in the evening.

and Mr. Chas. E. Gibbons (flautist) also will again perform. Mr. R. A. Mitchell (tenor) will include in his numbers that old favourite, "There is a Flower that Bloometh" from "Maritana." Three new singers will make their appearance in this programme, Miss Mary Teviotdale (mezzo-soprano), who will sing "The Fuchsia Tree," "Songs My Mother Taught Me," and "To Music" (Schubert); Mr. W. Hilliker, a young basso, who has chosen "Blow, Blow, Thou Winter Wind," by Serjeant, "The Volga Boat Song" and "On a January Morning," Squire Western's song from Sir Edward German's comic opera, "Tom Jones"; and Miss Helen Wilson, a young lady with a very sweet soprano voice.

THE popular Serenaders will entertain on Wednesday evening March 6, with "Canadian Boat Song" and "Mine Own Countrie" (Londonderry Air). Miss Florence Sumner and Miss Dorothy Allan will be heard in the duet by Mendelssohn, "I Would That My Love," besides solos. The tenor and baritone, Messrs. W. Harrison and R. B. Macdonald, will contribute solo items. Humorous sketches will be given by Major Lampen and Miss Anita Winkel, and Mrs. Ernest Drake, the studio-pianiste, will play "Nocturne in G Major" by Chopin. From 9.30 to 11 p.m. there will be a special dance programme.

During the afternoon session on Friday, March 8, Miss Buccleuch, of the D.S.A., will continue her fashion talks.

IN the evening Mr. Harry Drew (tenor) and Mr. Les Stubbs (baritone) will make their first appearance at 4YA. The former will sing "La Donna e Mobile" and the latter "The Wanderer" (by Schubert). The 4YA Broadcasting Trio will be heard in Dvorak's "Slavonic Dance" and "Ballet Music" (from "Faust"), while the individual members will supply solo numbers, Miss Eva Judd (violiniste) playing "Liebestraume," Mrs. Ernest Drake (pianiste), "Coronach," and Mr. P. J. Palmer, (cellist), "Hymn to the Sun." Also appearing on the programme will be Miss Irene Horniblow, L.R.A.M. (mezzo-contralto), and Miss Beryl Cooper (elocutioniste).

SATURDAY is vaudeville night and a very bright programme has been arranged. Miss Minna Ahlers will sing some popular songs, and Mr. Buster

Brown is giving some more of his humorous Scottish songs. Mrs. D. Oarty (soprano), will render two old favourites, "Hame o' Mine" and "My Ain Wee Hoose." Also included in this programme is the clever young elocutionist Mr. Lester Moller. A relay from the Octagon Theatre will supply the orchestral music, and from 9.30 to 11 p.m. there will be a special dance programme.

Radio for Schools

WE are told by "Le Radienx," Paris, that with all the outcry for modern methods in education, radio has been more or less neglected. In England and in Germany, radio has no longer been banished from the schools, and methods of collaboration have been evolved.

In Germany, for four years, one hour a day has been devoted to the transmission of educational matters, and 4,000 schools have profited from this innovation. The British Broadcasting Corporation has commenced upon a similar enterprise. They have conferred with the educational authorities with a view to introducing the subjects most needed and most useful to the school. Of course, wireless will not be able to replace the ordinary lessons, but they must necessarily conserve their character and be merely supplementary in such subjects as history, mythology, music, natural history, languages, geography, and travels. Talks on architecture, literature, and painting will be transmitted for the more advanced pupils.

A recent report states:—"Lessons by radio give the child a relativity of perception that could not otherwise be given. They incite him to show a visible interest in a large and diverse number of problems. They produce the same lasting impression as do ordinary lessons. They stimulate zeal, especially among the more intelligent. They encourage teachers to adopt the latest ideas and pedagogical methods. They interest parents in the work of their children at school."

In France, the movement is just awakening interest among authorities, and already some of the broadcasters have approached the authorities regarding the instigation of broadcast lessons.

The Latest—



Actual size
No. 9.

FAHNESTOCK CLIPS

Radio's Greatest Convenience

In all the handiest types from:

L. B. SCOTT Ltd.

Manchester and Worcester Streets, Chch.

EVERYTHING FOR RADIO

Send for assorted sample dozen.

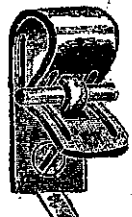
3/6 Post Free

Eight types—Send for illustrated Price List.

Our Mail Order Department gives same day service.



Actual Size.
No. 44



Actual size
No. 5

Full Programmes for Next

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

Sunday, March 3

1YA, AUCKLAND (333 METRES)—SUNDAY, MARCH 3.

3 p.m.: Afternoon session—Selected studio items.

4.0: Literary selection by the Announcer.

4.8: Studio items.

4.30: Close down.

6.0: Children's session, conducted by Uncle Leo.

6.55: Relay of service from St. Mary's Cathedral. Preacher, Canon Percival James.

8.30: Orchestral—Herman Finck's Orchestra, "Schubertiana" (arrgd. Finck) (Columbia Records 02721/2).

8.45: Contralto solo—Mrs. Victor Salek, "Abide With Me" (Liddle).

8.49: 'Cello solo—W. H. Squire, "Album Leaf" (Giere) (Columbia Record 04214).

8.52: Vocal trios—Bohemian Trio, Negro Spirituals, (a) "My Lord's Writing all the Time"; (b) "Steal Away."

8.59: Harpischord solo—Ignaz Friedman, "Rondo Alla Turca" (Mozart) (Columbia Record 03612).

9.2: Bass solo—Mr. Arthur Colledge, "'Tis Jolly to Hunt" (Bennett).

9.6: Vocal trios—Bohemian Trio, Negro Spirituals, (a) "Prepare Me"; (b) "My Lord, What a Morning."

9.18: Orchestral—New Concert Orchestra, "Hydropaten" (Gungl) (Columbia Record 02672).

9.17: Contralto solos—Mrs. Victor Salek, (a) "Ships of Arcady" (Head); (b) "Nocturne" (Head).

9.25: 'Cello solo—W. H. Squire, "Scherzo" (Harty) (Columbia Record 04214).

9.27: Bass solos—Mr. A. Colledge, (a) "Within These Sacred Portals" (Mozart); (b) "To Anthea" (Hatton).

9.33: Vocal trios—Bohemian Trio, Negro Spirituals, (a) "The Lord's Prayer"; (b) "Rock o' My Soul."

9.40: Close down.

2YA WELLINGTON (420 METRES)—SUNDAY, MARCH 3.

3 p.m.: Chimes of the G.P.O. clock.

3.1: Relay description from Basin Reserve of ceremony of "Presenting of the Colour" to the 1st Battalion, Wellington Regiment. The ceremony will be performed by His Excellency the Governor-General, Sir Charles Fergusson.

6.0: Children's Sunday Service conducted by Uncle George.

7.0: Relay of Evening Service of The Terrace Congregational Church (Preacher, Rev. C. Wickham; organist and choirmaster, Mr. H. Bruney). Anthems: "As Pants the Hart" (Spohr) (soloist, Mrs. Alice Harris); "Nunc Dimittis" (Walmsley). Organ offertory, "Impromptu Elegie" (Pyne).

8.15 (approx.): Studio Concert:

Orchestral—Philharmonic Orchestra (conductor, Felix Weingartner), "Adagio and Allegro of Symphony in E Flat" (Mozart) (Columbia Record 02715).

Soprano—Miss Myra Sawyer, "Bid Me Discourse" (Bishop).

String quartet—Lener String Quartet, "Adagio—Quartet in G Minor," Op. 10, No. 1 (Debussy) (Columbia Record 04211-2).

Bass solo—Mr. Wm. Boardman, "Proud and Peerless" (Buononcini). Orchestral—Columbia Symphony Orchestra, Selection from "Faust" (Gounod) (Columbia Record 02708).

Tenor solo—Mr. E. W. Robbins, "King Ever Glorious," from "The Crucifixion" (Stainer).

'Cello solo—Felix Salmond, "Kol Nidrei" Op. 47 (Bruch) (Columbia Record 04190).

Vocal duet—Miss Myra Sawyer and Mr. Wm. Boardman, "How Long in Torment Sighing" (Mozart).

Orchestral—Berlin State Opera Orchestra, "Tannhauser" (Wagner) (Parlophone Records A4036/7).

Soprano solo—Miss Myra Sawyer, "The Tryst" (Sibellus).

Chorus—Light Opera Company, Gems from "Cavalleria Rusticana" (Mascagni) (H.M.V. Record EB27).

Violin and 'cello—Fritz Kreisler and Hugo Kreisler, (a) "Sanctissima" (Corelli, arrgd. Kreisler); (b) "L'Arlesienne—Intermezzo" (Bizet, arrgd. Kreisler) (H.M.V. Record DB1166).

Bass solo—Mr. Wm. Boardman, "Mignon's Slumber Song" (Thomas).

Organ solos—G. T. Pattman, (a) "Prelude in C Sharp Minor" Op. 3, No. 2 (Rachmaninoff); (b) "Humoresque" (Dvorak) (Columbia Record 02686).

Contralto solos—Sophie Braslau, (a) "Just A'wearin' for You" (Jacobs-Bond); (b) "I love You Truly" (Jacobs-Bond) (Columbia Record 03618).

Instrumental—J. H. Squire Celeste Octet, (a) "Evensong at Twilight" (Squire); (b) "Evening Lullaby" (Squire).

Tenor solos with violin obligato—Mr. E. W. Robbins, (a) "Elegie" (Massenet); (b) "For You Alone" (Geehl) (violin obligato by Miss Ruth Reid).

Band selection—International Band, "Dress Parade March" (arrgd. Enriquez).

Close down.

3YA, CHRISTCHURCH (306 METRES)—SUNDAY, MARCH 3.

3 p.m.: Relay of Welsh celebration of St. David's Day from Christchurch Anglican Cathedral. Preacher, Very Rev. Dean of Christchurch Organist, Mr. Alexander M. Owen.

4.15: Gramophone recital.

4.30: Close down.

5.30: Children's song service, conducted by Uncle David

6.15: Hymn tunes.

6.30: Gramophone recital.

7.0: Relay of evening service from Knox Presbyterian Church. Preacher, Rev. T. W. Armour. Organist, Mr. W. Billington.

8.0 (approx.): Studio programme.

Overture—Concertgebouw Orchestra, "Tannhauser" (Wagner) (Columbia Records L1770/1).

8.16: Contralto solo—Mrs. E. H. Davies, "A Request" (Woodforde-Finden).

8.20: Chorus with orchestra—"Lohengrin—Finale" (Wagner) (Columbia Record 02592).

Violin solos—Joseph Sziget, (a) "Le Printemps" (Milhaud); (b) "Slavonic Dance in E Minor" (Dvorak-Kreisler) (Columbia Record L1963).

8.32: Baritone solo—Mr. John Worgan, "Once in the Long Twilight" (Horn).

8.36: Selection—Herman Finck's Orchestra, "Schubertiana" (arrgd. Finck) (Columbia Record 02721).

8.44: Mezzo-soprano solo—Miss Hilda Blechynden, "Serenade" (Gounod).

8.48: Contralto and baritone duet—Mrs. E. H. Davies and Mr. John Worgan, "Come, Sing to Me" (Thompson).

8.52: Piano with orchestra—Ignaz Friedman, "Concerto in A Minor" (Grieg) (2nd and 3rd Movements) (Columbia Records 02704/5).

9.8: Contralto solo—Mrs. T. H. Davies, "When the Great Red Dawn is Shining" (Sharp).

9.12: Baritone solo—Mr. John Worgan, "An Evening Song" (Blumenthal).

9.16: Chorus with orchestra—Bayreuth Festival Orchestra, "Parsifal—Grail Scene" (Wagner) (Columbia Record L2008).

9.24: Mezzo-soprano solos—Miss Hilda Blechynden, (a) "Temple Bells" (Woodforde-Finden); (b) "The Dawn" (D'Hardelot).

9.28: Choral—Don Cossacks Choir, "Holj Slavenj" (How greatly our Lord is magnified) (Bortnjarsky) (Columbia Record 02712).

9.32: Close down.

4YA, DUNEDIN (463 METRES)—SUNDAY, MARCH 3.

5.30 p.m.: Children's song service, conducted by Big Brother Bill.

6.30: Relay of service from Hanover Street Baptist Church. Preacher, Rev. E. S. Tuckwell. Organist, Mr. Upton Harvey. Choirmaster, Mr. H. P. Desmoulins.

7.45 (approx.): Gramophone recital.

9.15: Close down.

Monday, March 4

1YA, AUCKLAND (333 METRES)—MONDAY, MARCH 4.

SILENT DAY.

2YA, WELLINGTON (420 METRES)—MONDAY, MARCH 4, 1929.

3.0 p.m.: Chimes of the G.P.O. Clock.

3.1: Selected gramophone items.

4.30 and 4.55: Sports results to hand.

5.0: Close down.

6.0: Children's session, conducted by Uncle Jeff and Aunt Gwen.

7.0: News session, market reports and sports results.

7.40: Lecturette—Hare Hongi—"Maori Language and Pronunciation."

8.0: Chimes of the G.P.O. Clock.

8.1: Overture—Orchestra, "Overture in C Major" (Mendelssohn).

8.11: Soprano solo—Miss Eileen Kimbell, "The Woman's Last Word" (Bantock).

8.15: Pianoforte solos—Miss Pauline Rodgers, (a) "Polonaise" Op. 40, No. 1 (Chopin); (b) "Nocturne" (Grieg); (c) "March of the Dwarfs" (Grieg).

8.22: Baritone solo—Mr. Claude Moss, "Nelson's Gone A'Sailing" (Lohr).

Week-all Stations-to Mar. 10

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

- 8.26: Instrumental—Orchestra, "Jupiter Symphony" (Mozart): 1. Andante Cantabile. 2. Minuet. 3. Trio. 4. Finale.
 8.46: Contralto solo—Miss Nora Greene, "Sappho's Farewell" (Gounod).
 8.50: Tenor solo—Mr. Eric Rishworth, "Love's Message" (Schubert).
 8.54: Instrumental—Orchestra, repeat number.
 9.2: Weather report.
 9.4: Mr. Victor S. Lloyd will relate another of his experiences.
 9.16: Violin solos—Helfetz, (a) "Hebrew Melody" (Achron), (b) "Sapateado" (Spanish Dance) (Sarasate) (H.M.V. record DB1048).
 9.24: Soprano solos—Miss Eileen Kimbell, (a) "In Those Soft Silken Curtains" (Puccini); (b) "Christina's Lament" (Dvorak).
 9.30: Baritone solos—Mr. Claude Moss, Two Maori songs, (a) "The Song of the Locust" (Haka song) (Hill); (b) "Waiata Aroha" (in Maori) (Hill) (Short song used when using long poi).
 9.36: Instrumental—Orchestra, "Chant Elegiaque" (Tschalkowsky).
 9.41: Tenor solo—Mr. Eric Rishworth, "Serenade" (Schubert).
 9.45: Contralto solos—Miss Nora Greene, (a) "The Spirit's Song" (Haydn); (b) "Billy Boy" (Arr. Terry).
 9.50: Suite—Orchestra, "Petite Suite" (Coleridge Taylor).
 10.0: Close down.

3YA, CHRISTCHURCH (306 METRES)—MONDAY, MARCH 4, 1929.

- 8.0 p.m.: Afternoon session—selected studio items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by "Scatterjoy."
 7.15: News session.
 7.30: Talk—Mr. E. J. Bell—"Book Review."
 8.0: Chimes.
 Programme by Christchurch Municipal Band under the conductorship of Mr. A. Schnack, and assisting artists.
 8.1: March—Band, "Ravenswood" (Rimmer); waltz—Band, "Ecstasy" (Baynes).
 8.11: Popular songs—Miss Sylvia Marshall, (a) "Rose Time" (Hall and Hagan); (b) "Oh, Doris Where Do You Live?" (Kahn).
 8.17: Instrumental trios—Christchurch Broadcasting Trio, (a) "Menuet"; (b) "Gavotte"; (c) "Allegretto"; (d) "Hornpipe" (Bridge).
 8.31: Tenor solo—Mr. Arthur T. Couch, "Macushla" (Marmurrough).
 8.35: Band selection—"Normanhurst" (Greenwood).
 8.45: Male choruses—Parlophone Melody Co., "Convivial Songs" (Parlophone record A2511).
 8.49: Contralto solo—Miss Eileen Irwin, "Caprice Viennois" (Kreisler).
 8.53: Hymn—Band, "Nearer My God to Thee" (Dykes).
 8.58: Weather report.
 9.0: Orchestral—Edith Lorand Orchestra, (a) "Liebesfeier" (Weingartner) (Parlophone record A4040); (b) "Prelude in C Sharp Minor" (Rachmaninoff) (Parlophone record A4040).
 9.8: Popular songs—Miss Eylvia Marshall, "Jeanine, I Dream of Lilac Time" (Shilkret).
 9.12: Novelty—Clapham and Dwyer, "Golf" (Clapham and Dwyer) (Parlophone record A2524).
 9.15: Instrumental trios—Christchurch Broadcasting Trio, (a) "Intermezzo" (Mathais); (b) "Sous Le Ciel Bleu" (Leonesi); (c) "The Mill" (Raff).
 9.31: Soprano chorus—Emmy Bettendorf, "The Flying Dutchman—Senta's Ballad" (Wagner) (Parlophone record A4042).
 9.39: Tenor solos—Mr. Arthur T. Couch, (a) "Hine E Hine" (Te Rangī Pahi) (sung in Maori); (b) "The Trumpeter" (Dix).
 9.46: Fantasia—Band, "Le Clinque" (Rimmer).
 9.56: Contralto solos—Miss Eileen Irwin, (a) "La Serenata" (Pablo-Tosti); (b) "That's All" (Brahe).
 10.1: March—Band, "Argandab" (Thompson).
 10.5: Close down.

4YA, DUNEDIN (463 METRES)—MONDAY, MARCH 4, 1929. (SILENT DAY.)

Tuesday, March 5

1YA, AUCKLAND (333 METRES)—TUESDAY, MARCH 5.

- 8 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Studio items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by Uncle George.
 7.15: Talk—Mr. Geo. Campbell, "Motoring"

- 7.30: News and market reports—book review.
 8.0: Chimes.
 8.1: Relay of orchestral overture from Majestic Theatre Orchestra, under the conductorship of Mr. J. Whiteford Waugh.
 8.10: Tenor solo—Mr. Arthur Ripley, "My Dear" (Slater).
 8.14: Orchestral—Symphony Orchestra, "La Vida Breve" (Spanish Dance) (De Falla) (H.M.V. Record D1453).
 8.18: Soprano solo—Miss Marjorie Fair, "Two Bird Songs" (Lehmann).
 8.22: Instrumental trio—Auckland Trio, "Blue Danube" (Strauss).
 8.30: Recital—Miss Gladys Gamman, "A Gentleman of France" (Walsh).
 8.35: Relay of orchestral entr'acte from Majestic Theatre.
 8.42: Baritone solo—Mr. Leo. O'Malley, "Queen of the Earth" (Pinsuti).
 8.46: Violin solo—Miss Ina Bosworth, "Valse Bluette" (Drigo).
 8.51: Male quartet—The Rounders, "Chlo-e" (Song of the Swamp) (Kahn) (H.M.V. Record BA402).
 Pianoforte solo—Ignace Jan Paderewski, "La Campanella" (Paganini-Liszt) (H.M.V. Record DB1055).
 8.59: Weather report.
 9.2: Relay of vocal interlude from Majestic Theatre.
 9.10: Recitals—Miss Gladys Gamman, (a) "The Lesson of the Water Mill" (Andrews); (b) "The Hindoo's Paradise."
 9.15: Soprano solo—Miss Airini Rogers, "Trees" (Rashbach).
 9.18: Instrumental trio—Auckland Trio, "Lady Be Good" (Youmans).
 9.27: Presentation of excerpts from "Chu Chin Chow" (Norton), produced under the direction of Madame Irene Ainsley:—

Cast.

- Miss Marjorie Fair Mezzo-soprano.
 Miss Airini Rogers Soprano.
 Mr. Leo. O'Malley Baritone.
 Mr. Arthur Ripley Tenor.
 Song and chorus—"Here Be Oysters."
 Chorus—"Entrance of Chu Chin Chow."
 Song—"Cleopatra's Nile."
 Chorus—"Entrance of Ali Baba."
 Serenade—"Coraline."
 Entr'acte—Paul Whiteman's Orchestra, "Suite of Serenades" (Herbert), (1) Spanish; (2) Chinese (H.M.V. Record EB26).
 Chorus—"The Robbers' Court."
 Duet—"All My Days Till End of Life."
 Song—"Any Time's Kissing Time."
 Song and chorus—"Scimitar."
 Song—"Cobbler's Song."

Here is the
Miracle
of
Radio



Your Receiving Set may take in only a few millions of a millionth of the energy broadcast—but RCA Radiotrons amplify millions, even billions of times, thus—the reproduction of the whole programme is made possible. Although RCA Radiotrons are extraordinarily delicate, they are sturdily built and low in price. Your Set will give finer performance when it is equipped with RCA Radiotrons.

RCA RADIOTRON

MADE BY THE MAKERS OF THE RADIOLA

Amalgamated  Wireless
(Australasia) Ltd.

G.P.O. BOX 830

WELLINGTON.

Chorus—"Fruit Girls."
 Entr'acte—Paul Whiteman's Orchestras, "Suite of Serenades" (Herbert), (1) Cuban; (2) Oriental (H.M.V. Record EB26).
 Song—"I Love You So."
 Soprano solo—"My Desert Flower."
 Song and chorus—"I Built a Fairy Palace in the Sky."
 Finale—"The Wedding Procession."

10.0: Close down.

2YA, WELLINGTON (420 METRES)—TUESDAY, MARCH 5.

3 p.m.: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session, conducted by Uncle Jim.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Representative of the Agricultural Department, "For the Man on the Land."
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture—Orchestra, "Four Ages of Man" (Lachner).
 8.11: Tenor solo—Mr. James Osborne, "The Carnival" (Molloy).
 8.15: Hawaiian—Palmer's Hawaiian Trio, (a) "I'd Rather Cry Over You than Laugh at Somebody Else" (MS); (b) "Chiquita" (MS).
 8.22: Soubrette—Miss Marjorie Buckeridge, "Join the Navy" (Youmans).
 8.27: Serenade—Orchestra, "Serenade" from "Les Millions d'Arlequin" (Drigo).
 Waltz—Orchestra, "The Magic of Love" (Vanis).
 8.37: Popular songs—Messrs. Edward Silver and Billy Hart, (b) "Golden Gate" (Jolson); (b) "My Baby Don't Mean 'Maybe' Now" (Donaldson).
 8.44: Saxophone solo—Rudy Wiedoeft, "Rubenola" (Wiedoeft). (Zonophone record BE119).
 Male quartet—The Rounders, "Chlo-e" (Song of the Swamp). (Kahn.) (H.M.V. record BA402).
 8.50: Instrumental—Orchestra, repeat number.
 8.58: Weather report.
 9.0: Tenor solo—Mr. James Osborne, "Lolita" (Buzzia-Pecchia).
 9.4: Novelty—Orchestra, "In a Monastery Garden" (Ketelbey).
 (Synopsis: The first theme represents a poet's reverie in the quietude of a monastery garden amidst beatific surroundings—the calm, serene atmosphere, the leafy trees and the singing birds. The second theme in the minor expresses the more "personal" note of sadness, of appeal and of contrition. Presently the monks are heard chanting the "Kyrie Eleison," and the organ playing and the chapel bell ringing. The first theme is now heard in a quieter manner as if it had become more ethereal and distant. The singing of the monks is heard again—it becomes louder and more insistent, bringing the piece to a conclusion in a glow of exultation.)
 9.10: Soubrette—Miss Marjorie Buckeridge, "Somebody's Sweet is Sweet on Me" (Donovan).
 9.15: Hawaiian—Palmer's Hawaiian Trio, (a) "Mona Lua Huhu" (M.S.); (b) "Ua Like No a Like" (Everett).
 9.22: Popular songs—Messrs. Edward Silver and Billy Hart, (a) "That's My Weakness Now" (Green); (b) "Without You, Sweetheart" (De Sylva).
 9.29: Musical comedy selection—Orchestra, "Kissing Time" (Caryl).
 9.39: "Columbia" Dance Programme.
 Foxtrot with vocal chorus—Debroy Somers' Band, "The Toy-Town Artillery" (Frederick), (Columbia 01306).
 Waltz—Eddie Thomas' Collegians, "Till We Meet Again" (Whiting), (Columbia 02553).
 Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "Constantinople" (Carlton), (Columbia 07002).
 9.51: Soprano and male quartet—Norah Blaney and Ramblers, "Sweet Suzanne" (Leslie), (Columbia 01170).
 Selection—Debroy Somers' Band, "Good News" (de Sylva), (Columbia 02720).
 Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "Last Night I Dreamed You Kissed Me" (Kahn), (Columbia 07002).
 10.5: Tenor with orchestra—Alfred O'Shea, "Just a Little Love, a Little Kiss" (Ross), (Columbia 03589).
 Instrumental—Paul Whiteman's Orchestra, "Jeannine, I Dream of Lilac Time" (Gilbert), (Columbia 07505).
 Waltz—Rio-Marimba Serenaders, "Dolores Waltz" (Waldteufel), (Regal G20344).
 Novelty foxtrot—Debroy Somers' Band, "Rag Doll" (Brown), (Columbia 01341).
 10.19: Monologue—Milton Hayes, "Meanderings of Monty—Is Lipstick Nourishing?" (Hayes). (Columbia 01293).
 Foxtrot with incidental singing—Stellar Dance Band, "Just Imagine!" (De Sylva), (Regal G20338).
 Foxtrot with vocal chorus—Denza Dance Band, "Varsity Drag" (De Sylva), (Columbia 01151).
 Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "Get Out and Get Under the Moon" (Shay), (Columbia 07001).
 10.33: Tenor solo—Alfred O'Shea, "Then You'll Remember Me" ("The Bohemian Girl"—Balfé), (Columbia 03613).
 Wurlitzer Organ solo—Milton Charles, "Cheerie-Beerie-Be" (Wayne), (Columbia 0914).

Waltz—Ben Selvin's Orchestra, "Ramona" (Wayne), (Columbia 01187).
 Foxtrot with vocal chorus—South Sea Islanders, "Hanalei Bay" (Alohihea), (Columbia 0737).

10.47: Spoken novelty—Flotsam and Jetsam, "The Business Man's Love Song" (Hilliam), (Columbia 0995).
 10.51: Vocal duet with piano—Gus. Van and Joe Schenck, "Skadatindee" (Tobias), (Regal G20336).
 Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "Evening Star" (Turk), (Columbia 07001).
 Waltz—Eddie Thomas' Collegians, "The Missouri Waltz" (Logan), (Columbia 02553).
 11.0: Close down.

3YA, CHRISTCHURCH (306 METRES)—TUESDAY, MARCH 5, 1929.

SILENT DAY.

4YA, DUNEDIN (463 METRES)—TUESDAY, MARCH 5, 1929.

3 p.m.: Town Hall chimes.
 3.1: Relay of afternoon tea music from the Ritz under the direction of Mr. Thos. J. Kirk-Burnnand.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session conducted by Big Brother Bill.
 7.15: News session.
 8.0: Town Hall chimes.
 8.1: March—H.M. Coldstream Guards, "Youth and Vigour" (Lautenschlager) (H.M.V. Record B2408).
 Waltz—International Concert Orchestra, "Over the Waves" (Rosas) (Zonophone Record EF3).
 8.9: Bass solos—Mr. W. Hilliker, (a) "Blow, Blow, Thou Winter Wind" (Serjeant); (b) "On a January Morning" ("Tom Jones") (German).
 8.16: Flute solo—Mr. Chas. E. Gibbons, "Martha" (Flotow).
 8.22: Mezzo-soprano solos—Miss Mary Teviotdale, (a) "The Fuchsia Tree" (Quilter); (b) "Songs my Mother Taught Me" (Dvorak).
 8.29: Waltz—International Concert Orchestra, "Blue Danube" (Strauss) (Zonophone Record EF21).
 8.33: Recital—Mr. Carl Moller, "Joe Murgatroyd Says."
 8.38: Tenor solos—Mr. R. A. Mitchell, (a) "The Fairy Tales of Ireland" (Coates); (b) "Farewell, But Whenever" (Villiera Stanford).
 8.45: Saxophone solo—Rudy Wiedoeft, "Rubenola" (Wiedoeft) (Zonophone Record BE119).
 8.49: Soprano solo—Miss Helen Wilson, "Not Understood" (Houghton).
 8.53: Chorus with orchestra—Light Opera Co., Gems from "The Blue Mazurka" (Lehar) (H.M.V. Record EB11).
 8.57: Weather report.
 8.59: Suite—H.M. Coldstream Guards, "Suite Francaise" (Foulds) (H.M.V. Record B2751).
 9.6: Bass solo—Mr. W. Hilliker, "Volga Boat Song" (Traditional).
 9.10: Recitals—Mr. Carl Moller, (a) "Presentation of Prizes" (b) "The Thousandth Man" (Kipling).
 9.18: Suite—H.M. Coldstream Guards, "Suite Francaise" (Foulds) (H.M.V. Record B2752).
 9.25: Mezzo-Soprano solo—Miss Mary Teviotdale, "To Music" (Schubert).
 9.29: Flute solos—Mr. Chas. E. Gibbons, (a) "Come into the Garden Maud" (Le Thiere); (b) "Romance" (Young).
 9.39: Tenor solo—Mr. R. A. Mitchell, "There is a Flower that Bloometh" ("Maritana") (Wallace).
 9.43: Violin with cinema organ—Elsie Southgate, "I Hear You Calling Me" (Marshall) (Zonophone Record 5109).
 9.47: Soprano solos—Miss Helen Wilson, (a) "A Dream Minuet" (Phillips); (b) "To a Miniature" (Brahe).
 9.53: Orchestral—Philadelphia Symphony Orchestra, "Hungarian Rhapsody No. 2" (Liszt) (H.M.V. Record D1296).
 10.1: Close down.

Wednesday, March 6

1YA, AUCKLAND (333 METRES)—WEDNESDAY, MARCH 6.

3 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Further studio items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by Uncle Tom.
 7.15: News and market reports.
 8.0: Chimes.
 8.1: Band—Salvation Army Congress Hall Band, "Flag of Freedom" (Colls).
 8.8: Quartet—Lyric Quartet, "Come Back to Erin" (Claribel).
 8.12: Band—Salvation Army Congress Hall Band, "Joy of the Redeemed" (Ball).
 8.21: Humour—Mr. Alan McElwain, "Snapshots of Humour."
 8.26: Concert duo—Bandsmen Davies and Salthouse, "Ida and Dot" (Loosey).
 8.31: Tenor—Mr. H. Richards, "Though the Road be Long" (Barker).
 8.35: Mezzo-soprano solo—Miss Ivy Taylor, "Softly Awakes" (Samson and Delilah) (Saint-Saens).

A Store-wide showing of New Goods
for Autumn and Winter

Grand Opening

of the New
and Greater

D. I. C.



Beautiful
Restaurant—Tea
Room panelled in
Queensland
Maple.

Lounge and
Writing Room,

Ladies' Retiring
Room,

Mothers' Room,
for free use of
Customers and
Visitors.

Information and
Telephone
Bureau.

Visitors to Wellington are cordially invited to inspect the New and Greater D.I.C., the opening ceremonies of which were attended by such enthusiastic crowds on Thursday, 28th February.

Thousands of pounds' worth of beautiful New Fashion Goods and drapery have been imported for the Opening Exhibition, and the profuse variety of styles and big range of prices will assuredly meet the requirements of all.

D.I.C.—Wellington

- 8.40: Orchestral—Marek Weber's Orchestra, "Vienna by Night" (Komzak) (H.M.V. Record O1507).
 8.48: Duet—Messrs. Richards and Thomas, "Be Mine the Delight" (Faust).
 8.52: Band—Salvation Army Congress Hall Band, "Prize Selection" (Kitching).
 9.0: Quartet—Lyric Quartet, "Mosquitoes" (Church).
 9.4: Weather report.
 9.6: Band—Salvation Army Band, (a) "Nearer My God to Thee" (b) "Maidshone."
 9.13: Bass solo—Mr. E. Thomas, "Gentlemen, the King" (Gleeson).
 9.17: Band selection—Salvation Army Band, "Over Jordan" (Colls).
 9.26: Mezzo-soprano solo—Miss Ivy Taylor, (a) "Flower Song" (Gounod); (b) "Dream of Home" (Arditi).
 9.43: Dance orchestra and organ—Louisiana Sugar Babies, "Persian Rag" (Kahn) (H.M.V. Record EA397).
 9.47: Tenor solo—Mr. Arthur Ripley, "Who knows?" (Ball).
 9.51: Band selection—Salvation Army Congress Hall Band, "Song of Ireland" (Streton).
 9.59: Quartet—Lyric Quartet, "Long Day Closes" (Sullivan).
 10.3: March—Salvation Army Congress Hall Band, "Joy of Heart" (Colls).
 10.9: Close down.

2YA, WELLINGTON (420 METRES)—WEDNESDAY, MARCH 6, 1929.

SILENT DAY.

3YA, CHRISTCHURCH (306 METRES)—WEDNESDAY, MARCH 6, 1929.

- 3 p.m.: Afternoon session—Selected studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's session conducted by Big Brother and Mother Hubbard.
 7.15: News session.
 7.30: Addington stock market reports.
 8.0: Chimes.
 8.1: Orchestral—Berlin State Opera Orchestra, "Die Meistersinger" (Wagner) (Parlophone Record E10633).
 8.9: Soprano solos—Miss Cicely Christian, (a) "Lorraine, Lorraine, Loree" (Spross); (b) "To You" (Speaks).
 8.15: Pianoforte solo—Miss Maud K. Stout, "Soaring" (In F Minor) (Schumann).
 8.19: Tenor solo—Mr. Harold Prescott, "Ah, Moon of My Delight" (Lehmann).
 8.23: Instrumental quintets—Bohemian Instrumental Quintet, "Suite in D"—(a) "Govotte"; (b) "Bouree"; (c) "Air"; (d) "Gigue" (Bach).
 8.36: Contralto solo—Miss Dulcie Mitchell, "Che Faro Senza Euridice" ("Orfeo ed Euridice") (Gluck).
 8.40: Harpsichords and viola—Anna Linde and Paul Grummer, "Sonata in C" (Adagio—Allegro) (Handel) (Parlophone Record E10582).
 8.48: Humorous recital—Miss Kathleen Chapple, "Bridal Morn" (MS).
 8.52: Baritone solo—Mr. Fred. C. Penfold, "She Alone Charmeth My Sadness" ("Irene") (Gounod).
 8.56: Orchestral—Frank Westfield's Orchestra, "Classica" (Potpourri of famous airs) (Arranged Tilsley) (Parlophone Record A2195).
 9.4: Weather report.
 9.6: Overture—Bohemian Quintet, "Rienzi" (Wagner).
 9.17: Soprano solo—Miss Cicely Christian, "Sing, Joyous Bird" (Phillips).
 9.21: Pianoforte solos—Miss Maud K. Stout, (a) "1st Arabesque in E Major" (Debussy); (b) "Fantasia Impromptu in C Sharp Minor" (Chopin).
 9.27: Tenor solo—Mr. Harold Prescott, "English Rose" ("Merrie England") (German).
 9.31: Fantasia—Edith Lorand Orchestra, "Cavalleria Rusticana" (Mascagni) (Parlophone Record E10569).
 9.39: Contralto solos—Miss Dulcie Mitchell, (a) "When You Come Home" (Squire); (b) Negro Spiritual, "I Got a Robe" (arranged Edna Thomas).
 9.44: Instrumental quintets—Bohemian Quintet, (a) "Death of Ase" (Grieg); (b) "Anitra's Dance" (Grieg).
 9.51: Humorous recital—Miss Kathleen Chapple, "On the Beach" (MS).
 9.55: Baritone solo—Mr. Fred. C. Penfold, "I am Fate" (Hamblin).
 10.1: Waltz—Edith Lorand Orchestra, "Tales From the Vienna Woods" (Strauss) (Parlophone Record E10624).
 10.9: Close down.

4YA, DUNEDIN (463 METRES)—WEDNESDAY, MARCH 6.

- 7.0 p.m.: Town Hall Chimes.
 7.1: Request gramophone concert.
 7.40: News session.
 8.0: Town Hall chimes.
 8.1: Overture—Royal Albert Hall Orchestra, "Pomp and Circumstance" (In A minor) (Elgar) (H.M.V. record D1102).
 8.5: Vocal quartette—Serenaders, "Canadian Boat Song" (Trdtl.).
 8.9: Humorous sketch—Miss Anita Winkel and Major F. H. Lampen.
 8.19: Light sings—Miss Betty Roberts, (a) "Sometimes I'm Happy" (Youmans); (b) "The Harbour of My Heart" (Youmans).
 8.25: Baritone solos—Mr. R. B. Macdonald, (a) "I Shall Know" (Zucca); (b) "Will o' the Wisp" (Cherry).
 8.32: March—Philadelphia Symphony Orchestra, "Damnation of Faust" (Rakoczy March) (Berlioz) (H.M.V. record ED7).
 8.36: Vocal duet—Misses Florence Sumner and Dorothy Allan, "I Would That My Love" (Mendelssohn).

- 8.40: Orchestral—Philadelphia Symphony Orchestra, "Samson and Delilah" (Bacchanale) (Saint-Saens) (H.M.V. record ED7).
 8.44: Tenor solos—Mr. W. Harrison, (a) "At Dawning" (Cadman); (b) "A Dream" (Bartlett).
 8.50: Waltz with vocal refrain—Troubadours, "When Love Comes Stealing" (Rapee) (H.M.V. record EA410).
 8.54: Solo—Miss Betty Roberts, "Romance" (Romberg).
 8.57: Light orchestral—New Light Symphony Orchestra, "Just a Memory" (de Sylva) (H.M.V. record EB18).
 9.0: Weather report.
 9.2: Contralto solos—Miss Dorothy Allan, "Two Hebridean Folk Songs" (Kennedy Fraser).
 9.8: Humorous sketch—Miss Anita Winkel and Major Lampen.
 9.18: Soprano solos—Miss Florence Sumner, (a) "The Amorous Goldfish" ("The Geisha") (Jones); (b) "I Dreamt that I Dwelt in Marble Halls" ("The Bohemian Girl") (Balfe).
 9.25: Vocal quartet—Serenaders, "Mine Own Countree" (Trdtl.).
 9.29: "Columbia" Dance Programme.
 March medley—H.M. Grenadier Guards Band, "Martial Moments" (arrgd. Winter) (Columbia record 9065).
 Foxtrot with vocal chorus—Park Central Hotel Orchestra, "Golden Gate" (Jolson) (Columbia 01350).
 Foxtrot with vocal chorus—Ambassador's Band, "Forty-seven Ginger-Headed Sailors" (Saroni) (Columbia 01338).
 Vocal duet—Layton and Johnstone, "Just Like a Melody Out of the Sky" (Donaldson) (Columbia 01339).
 9.43: Tenor solo—Seamus O'Doherty, "The Pride of Tipperary" (Lockhead) (Regal G20843).
 Band selection—H.M. Grenadier Guards Band, "In a Clock Store" (Orth) (Columbia 9029).
 9.50: Foxtrot—Ambassador's Band, "I Just Roll Along Having My Ups and Down" (Trent) (Columbia 01338).
 Foxtrot with vocal chorus—Ipana Troubadours, "'s Wonderful" (Gershwin) (Columbia 01306).
 Hawaiian guitar, banjo and Ukulele trio, "My Hawaii" (Lewis) (Columbia 3606).
 10.0: Monologue—Milton Hayes, "Meanderings of Monty—Monty Attends a Board Meeting" (Hayes) (Columbia 01106).
 Male quintet—Singing Symphonies, "My Ohio Home" (Kahn) (Columbia 01088).
 Organ solos—G. T. Pattman, (a) "Polly" (Zamecnik); (b) "Janette" (Williams) (Columbia 01144).
 Foxtrot—Debroy Somers' Band, "Without You, Sweetheart" (de Sylva) (Columbia 01249).
 10.20: Tenor solo—Hubert Eisdell, "Parted" (Tosti) (Columbia 02598).
 10.24: Humoresque—Australian Commonwealth Band, "Slidin' Thro the Rye" (Hawkins) (Columbia 01235).
 10.32: Male quartet—Shannon Male Quartet, "The Sidewalks of New York" (Lawlor) (Regal G20298).
 Piano solo—Gil Dech, "Hallelujah" (Youmans) (Columbia 01205).
 Vocal with novelty accompaniment—Ukulele Ike, "Chiquita" (Wayne) (Columbia 01265).
 Vocal duet—Jack Lumsdaine and Len Maurice, "That's My Mammy" (Perse) (Columbia 01191).

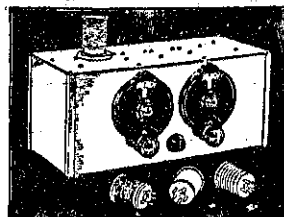
Tune over the "Thrill-Band!"

(17-200 METRES)

WITH A

**SILVER-MARSHALL
Screen-Grid**

"ROUND-THE-WORLD" FOUR



Get the thrill of listening to
foreign broadcast programmes
ON THE SPEAKER!!

THE S.M. "ROUND-THE-WORLD FOUR"

—Is a complete short-wave receiver and two-stage audio amplifier, and the whole range between 17.4 and 204 metres is covered smoothly and efficiently.

A Revelation in Short-Wave Reception.

LET US SEND YOU SPECIFICATIONS AND OUR OFFER.

BOND & BOND, LTD., Box 331, Auckland.

- 10.45: **Orchestral**—Columbia Symphony Orchestra, "March of the Toys" (Herbert) (Columbia 02651).
Foxtrot—La Nuova Orchestra, "Di Napoli" (Italian Foxtrot) (Roman!) (Columbia 3066).
Waltz—Eddie Thomas' Collegians, "Beautiful Ohio" (Earl) (Columbia 02651).
Waltz—Royal Serbian Tambouritzza Orchestra, "Kosovo Waltz" (Columbia 3066).
Male chorus—Sheffield Orpheus Choir, "There Is a Tavern" (Trdtl.) (Columbia 01175).
C.L.S. Close down.

Thursday, March 7

IYA, AUCKLAND (333 METRES)—THURSDAY, MARCH 7,

- 3 p.m.: Afternoon session—selected studio items.
4.0: Literary selection by the Announcer.
4.8: Studio items.
4.25: Sports results to hand.
4.50: Close down.
6.0: Children's session, conducted by Peter Pan.
7.15: News and market reports.
8.0: Chimes.
8.1: **March**—Orchestra, "Ole South" (Zamecnik).
Waltz—Orchestra, "Skaters' Waltz" (Waldteufel).
8.11: Vocal quartet—Olympians, "Good Evening" (Smith).
8.15: Saxophone solo—Rudy Wiedoeft, "Rubenola" (Wiedoeft) (Zonophone Record EE119).
8.19: Contralto solo—Miss Martha Williamson, "Rose in the Bud" (Foster).
8.23: Novelty—Orchestra, "Musical Jigsaw" (Aston).
8.33: One-act comedy—The Strollers, "The Lost Silk Hat" (Lord Dunsamy); Characters: The Caller; The Labourer; The Clerk; The Poet.
8.48: Vocal duet—Misses Williamson and Youd, "Banks O' Loch Lomond" (Old Scottish).
8.52: Wurlitzer organ solo—Jesse Crawford, "Jeannine, I Dream of Lilac Time" (Gilbert) (H.M.V. Record EA425).
8.56: Tenor solo—Mr. Lambert Harvey, "Down in the Forest" (Landon Ronald).
9.0: Weather report.
9.2: Song Suite—Orchestra, "Schumann's Songs" (Arrg. Friml).
9.13: Soprano solo—Miss Dorothy Youd, "Pierrot at the Dance" (Drummond).
9.17: Baritone solos—Mr. Geoffrey Colledge, (a) "The Handyman" (Wood); (b) "Invictus" (Huhn).
9.23: One-act comedy—The Strollers, "An Island Romance"; Characters: Miss Carlton; Captain Carew; Baverstock; The Governor.
9.35: Musical comedy selection—Orchestra, "Count of Luxembourg" (Lehar).
9.43: Vocal quartet—Olympians, "Sleepy Hollow Tune" (Koutanz).
9.47: "His Master's Voice" Programme of Dance Music.
Overture—H.M. Coldstream Guards, "Der Freischutz" (Weber) (H.M.V. Record C1335).
Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "My Pet" (Yellen) (H.M.V. EA433).
Foxtrot—Ted Weem's Orchestra, "Baby Doll" (Herscher) (H.M.V. Record EA433).
Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "I'm Afraid of You" (Davis) (H.M.V. Record EA373).
10.0: Entertainer—Will Gardner, "There's Another One Gone" (Darewski) (Zonophone Record 5079).
(Yellen) (Zonophone Record EE100).
Vocal duet—Jim Miller and Charlie Farrell, "The Grass Grows Greener"
Foxtrot—Ted Weem's Orchestra, "If You Want the Rainbow" (Rose) (H.M.V. Record EA433).
Foxtrot with vocal chorus—Rhythmic Eight, "You Don't Like It, Not Much" (Miller) (Zonophone EE96).
Waltz—Pennsylvania Orchestra, "Was It a Dream?" (Yellen) (H.M.V. EA335).
10.17: Tenor with violin and piano—Browning Mummery, "Had You But Known" (Denza) (H.M.V. Record B2756).
Hawaiian selection—Honolulu Serenaders, "Honolulu Stomp" (Philipo) (Zonophone EE92).
Foxtrot—Nat Shilkret's Orchestra, "Dainty Miss" (Barnes) (H.M.V. EA276).
Hawaiian selection—Hilo Hawaiian Orchestra, "Hawaiian Dreams" (Marple) (Zonophone Record EE56).
10.31: Male voices—The Revellers, "Was It a Dream?" (Coslow) (H.M.V. EA402).
Bass-baritone solo—Peter Dawson, "The Admiral's Yarn" (Rubens) (H.M.V. B2661).
Wurlitzer organ solo—Jesse Crawford, "Rosette" (Newman) (H.M.V. EA405).
Foxtrot—Pennsylvania Orchestra, "The Grass Grows Greener" (Yellen) (H.M.V. Record EA335).
Hawaiian orchestra—Hilo Hawaiian Orchestra, "Song of Hawaii" (Bories) (H.M.V. Record EA276).
10.45: Male quartet—The Rounders, "Chlo-E" (Kahn) (H.M.V. Record EA402).

- Foxtrot—Victor Orchestra, "What Do We Do on a Dew-Dew-Dewy Day" (Johnson) (H.M.V. Record EA244).
Foxtrot—Victor Orchestra, "The Doll Dance" (Brown) (H.M.V. Record EA181).
Waltz—Bert Firman's Dance Orchestra, "Sunset Down in Somerset" (Evans) (Zonophone EE96).
10.58 Wurlitzer organ solo—Jesse Crawford, "For Old Time's Sake" (De Sylva) (H.M.V. Record EA405).
11.2: Close down.

2YA, WELLINGTON (420 METRES)—THURSDAY, MARCH 7.

- 3.0 p.m.: Afternoon session—selected studio items.
4.30 and 4.55: Sports results to hand.
5.0: Close down.
6.0: Children's session, conducted by Uncle George.
7.40: Lecturette—Colonel Robert Sandall, "Uncommon Commonplaces—Canada."
8.0: Chimes of the G.P.O. clock.
8.1: Relay from Towh Hall of a special concert by the pupils of the Hawera Technical and Hawera Main Primary Schools. The orchestra of 50 has been trained and will be conducted by Mr. H. C. A. Fox.
March—Orchestra, "Baron Munchausen" (Gruenwald).
Overture—Orchestra, "The Spirit of the Winds" (Bennett).
Solo—Miss Doris Gilmore, "The Coon."
Violin solo—Louis Fox, "Mazurka" (Saint Amory).
Selection—Orchestra, Gems from "Maritana" (Wallace).
Recital—Reginald Muschamp, "Bus 13."
Horn solo—Ray Hawkins, "La Soparina" (Rimmer).
Plantation Patrol—Orchestra, "Ole South" (Zamecnik).
Weather report.
Chorus—The Revellers, Gems from "Tip Toes" (Gershwin) (H.M.V. Record C1293).
Overture—Orchestra, "Manrico" (Luscomb).
Solo—James Collins, "The Miniature."
Clarinet solo—David Rawson, "Air from Mignon" (Thomas).
Selection—Orchestra, "Martha" (Flotow).
Recital—Miss Mavis Tapp, selected.
Violin solo—Ray Downey, "Sarabande" (Bohm).
Waltz—Orchestra, "Joyous Life" (Gruenwald).
March—Orchestra, "The Laurel Branch" (Rollinson).
Close down.

3YA, CHRISTCHURCH (306 METRES)—THURSDAY, MARCH 7.

- 3.0 p.m.: Afternoon session—selected studio items.
4.25: Sports results.
4.30: Close down.
6.0: Children's session conducted by Uncle Hal.
7.15: News session.
7.30: Talk—under the auspices of the Canterbury Progress Association.
8.0: Chimes.
8.1: Overture—Rebroadcast of 2YA, Wellington.
8.6: A presentation of the song cycle, "Wind Flowers" (Somervell);
Soprano: Miss Frances Hamerton.
Contralto: Miss Belle Renaut.
Tenor: Mr. Russell Sumner.
Baritone: Mr. T. D. Williams.
Quartet—"Twist Me a Crown of Windflowers."
Quartet—"High Over The Breakers."
Contralto solo—"The Wind Has Such a Rainy Sound."
Quartet—"Hope Is Like a Harebell."
Duet—"Two Doves on the Self-same Branch."
Quartet—"Music, When Soft Voices Die."
Tenor and quartet—"When a Mounting Skylark Sings."
Quartet—"Going to Bed."
Baritone and Quartet—"Windy Nights."
Finale.
8.27: Violin solo—Miss Irene Morris, "Meditation" (Cottenet).
8.31: Soprano solos—Miss Frances Hamerton, (a) "The Reason" (Hickey), (b) "Ambition" (Hickey).
8.35: **Orchestral**—Grand Symphony Orchestra, "L'Arlesienne—Minuet" (Bizet) (Parlophone Record E10597).
8.39: **Instrumental trio**—Christchurch Broadcasting Trio, "First Movement—C Major Trio" (Mozart).
8.49: **Recital**—Mr. W. H. Moses, "The Saxon and the Gael" (Scott).
8.54: Tenor solo—Mr. Russell Sumner, "Beauty" (Herbert).
8.58: **Orchestral**—Dajos Bela Orchestra, "Serenade" (Moszkowski) (Parlophone Record A4015).
9.2: Weather report.
9.3: **Orchestral**—Berlin State Opera Orchestra, "Battle Symphony" (Beethoven) (Parlophone Record E10555).
9.19: **Contralto solos**—Miss Belle Renaut, (a) "Sun Above Me" (Pergolesi), (b) "To My Fair Lady" (Austin).
9.24: **Violin solos**—Miss Irene Morris, (a) "Chanson Louis XIII" (Couperin), (b) "Pavane" (Kreisler).
9.28: Baritone solo—Mr. T. D. Williams, "Glorious Devon" (German).
9.32: **Recital**—Mr. W. H. Moses, "The Children's Hour" (Longfellow).
9.36: **Instrumental trios**—Christchurch Broadcasting Trio, (a) "Serenade" (Lange-Muller), (b) "Romance" (Mozart), (c) "Second Valse" (Godard).

- 9.46: Tenor solo—Mr. Russell Sumner, "Five Eyes" (Gibbs).
 9.50: Organ solo—Sigmund Krungold, "Indian Love Call" (Friml) (Parlophone Record A2339).
 9.54: Baritone solo—Mr. T. D. Williams, "Song of the Flea" (Moursgorsky).
 9.58: March—H.M. Irish Guards, "Clonkerty Clonk" (Thayer) (Parlophone Record A2582).
 10.2: Close down.

4YA, DUNEDIN (463 METRES)—THURSDAY, MARCH 7.

SILENT DAY.

Friday, March 8

1YA, AUCKLAND (333 METRES)—FRIDAY, MARCH 8.

- 8.0 p.m.: Afternoon session—selected studio items.
 4.0: Literary selection by the announcer.
 4.8: Studio items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by Nod and Aunt Jean.
 7.15: News and market reports.
 8.0: Chimes.
 8.1: Orchestral—Philadelphia Symphony Orchestra, "Casse-Noisette" (Tschalkowsky). 1. Arab dance. 2. Chinese Dance. 3. Dance of the Flutes (H.M.V. record D1215).
 8.9: Vocal Duet—Miss Margaret Cameron and Mr. Arthur Colledge "Graceful Consort" (Haydn).
 8.13: Instrumental trio—Auckland Trio "Trio in D Minor" (Mendelssohn).
 8.22: Mezzo-soprano solo—Miss Phyllis Darling, "Far Across the Desert Sands" (Finden).
 8.26: Orchestral—Philadelphia Symphony Orchestra, "Casse-Noisette" (Waltz of the Flowers) (Tschalkowsky) (H.M.V. Record D1216).
 8.34: Bass solo—Mr. Arthur Colledge, "Old Barty" (Grant).
 8.38: Cello solo—Miss Mollie Wright, "Andantino" (Martini).
 8.43: Vocal duet—Jno. Hislop and Apollo Granforte, "O Mimi, Tu Pici Non Turni" (Ah, Mimi, you will never come back to me) ("La Boheme") (Puccini) (H.M.V. record DB939).
 8.47: Soprano solo—Miss Margaret Cameron, "From Mighty Kings" (Handel).
 8.51: Orchestral—Royal Opera Orchestra, "Faust Ballet Music" (Allegretto and Adagio) (Gounod) (H.M.V. record C1462).
 8.55: Weather report.
 8.58: Lecture recital—Mrs. Daisy Masham and Mr. William Gemmell, series of "Half-Hours with the Great Composers," 1. Henry Purcell.
 9.28: Orchestral—Royal Opera Orchestra, "Faust Ballet Music" (Allegretto and Maestosi) (Gounod) (H.M.V. record C1462).
 9.32: Mezzo-soprano—Miss Phyllis Darling, "Sacrament" (McDermid).
 9.36: Instrumental trio—Auckland Trio, (a) "Valse Mignonne" (Palmgreen); (b) "Polonaise" (Hansen).
 9.45: Bass solo—Mr. A. Colledge, "Rolling in Foaming Billows" (Hadyen).
 9.49: Soprano solo—Miss Margaret Cameron, "Villanelle" (Del Azua).
 9.53: Orchestral—Royal Opera Orchestra, "Faust Ballet Music" (Gounod). 1. Moderato con moto—Allegretto. 2. Vivo (H.M.V. record C1463).
 10.1: Vocal duet—Miss M. Cameron and Mr. A. Colledge, "When the Wind Blows in from the Sea" (Smart).
 10.4: Close down.

2YA, WELLINGTON (420 METRES)—FRIDAY, MARCH 8.

- 3.0 p.m.: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session conducted by Big Brother Jack.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. J. W. Fergie (Publicity Branch of the N.Z. Railways)—"The People's Railway."
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture—Orchestra, "Italians in Algeria" (Rossini).
 8.11: Soprano solo—Mrs. Ellison Porter, "Vissi D'Arte" ("La Tosca" (Puccini).
 8.15: Violin solo—Fritz Kreisler, "Indian Love Call" ("Rose Marie") (Friml) (H.M.V. Record DA785).
 8.23: Recital—Mr. Cedric Gardiner, "A Song of England" (Noyes).
 8.29: Grand Opera selection—Orchestra, "Salome" (Strauss).
 8.40: Contralto solo—Miss Madge Freeman, "Bois Epais" (Lully).
 8.44: Grand organ and cornet—Arnold Grier, "Softly Awakes My Heart" (Saint-Saens) (Zonophone Record A309).
 8.48: Tenor solo—Mr. Edwin Dennis, "Take a Pair of Sparkling Eyes" ("The Gondoliers") (Sullivan).
 8.52: Instrumental—Orchestra, repeat number.
 9.0: Weather report.
 9.2: Soprano solo—Mrs. Ellison Porter, "My Lover Rode By" (Galbraith).
 9.6: Vocal duet—Mr. Edwin Dennis and Miss Madge Freeman, "Quarrelling" ("The Country Girl") (Monckton).
 9.10: Suite orchestra, "Eine Kleine Nachtmusik" (Mozart): 1. Senerade. 2. Romance. 3. Menuett. 4. Rondo.
 9.20: Bass solo—Mr. Chas. Hickmott, "The Auld Plaid Shawl" (Haines).

- 9.24: Quartet—Philharmonic Quartet, "Santa Lucia" (Arr. Sawyer).
 9.28: Wurllitzer organ solo—Reginald Foort, "Schon Rosmarin" (Kreisler) (H.M.V. Record B2664).
 9.32: Humour—Mr. Cedric Gardiner, (a) "Catching the Train" (Adeler), (b) "He Tried to Tell His Wife" (Anon).
 9.39: Contralto solo—Miss Madge Freeman, "Villa" ("The Merry Widow") (Lehar).
 9.43: Waltz—The Troubadours, "Cielto Lindo" (Beautiful Heaven) (H.M.V. Record BA349).
 9.47: Tenor and chorus—Mr. Edwin Dennis and Philharmonic Quartet, "Love is Written Everywhere" (O'Hara).
 9.51: Musical comedy selection—Orchestra, "Ruddigore" (Sullivan).
 10.1: Close down.

3YA, CHRISTCHURCH (306 METRES)—FRIDAY, MARCH 8.

- 3.0 p.m.: Afternoon concert session—Selected studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's session conducted by "Mr. Storyman."
 7.15: News session.
 8.0: Chimes.
 Popular and dance programme, featuring the musical play, "Our Miss Gibbs" (Caryll-Monckton).
 8.1: Overture—Rebroadcast of 2YA, Wellington.
 8.6: Opening chorus and bass—The Radiolians and Mr. W. J. Richards, (a) "Moon Fairies" (Monckton), (b) "My Yorkshire Lassie" (Monckton).
 8.12: Cello solo—Mr. Harold Beck, "Apres Un Reve" (Faure).
 8.16: Soprano and contralto duet—Mrs. Claris Shaw and Miss M. Russell, "Bridesmaids" (Monckton).
 8.20: Humorous recital—Mr. James Rodgers, "A Modern Sermon" (MS).
 8.24: Instrumental Trio—Christchurch Broadcasting Trio, "Finale from D-Minor Trio" (Arensky).
 8.36: Soprano solo—Mrs. Claris Shaw, "Hats" (Caryll-Monckton). Duet—Tenor and Bass, Messrs Greg. Russell and W. J. Richards, "Correct" (Caryll-Monckton).
 8.42: Hawaiian Entertainer—Mr. Franc Hanalei, Hawaiian Music on Ukulele Guitar and Spanish Guitar.
 8.52: Quartet—The Radiolian Quartet, "Saturday Afternoon" (Caryll-Monckton).
 Contralto solo—Miss M. Russell, "Mary" (Caryll-Monckton).
 8.58: Weather report.
 9.0 p.m.: Instrumental item—Bailey-Marston Dance Band, "Mexican Serenade" (Terese).
 9.4: Tenor Solo—Mr. Greg. Russell, "Hughie" (Caryll-Monckton). Duet—Soprano and Bass, "Nor That Sort of Person" (Caryll-Monckton).
 9.9: Humorous Recital—Mr. James Rodger, "Some of Levinsky's Experiences" (Rose).
 9.14: Instrumental Trios—Christchurch Broadcasting Trio, (a) "Gavotte from 'Don Juan'" (Gluck); (b) "Serenade" (Drigo); (c) "Allegretto" (Brahms).
 9.24: Quartet—The Radiolians, "Places Oriental" (Caryll-Monckton). Contralto solo—Miss M. Russell, "In Yorkshire" (Caryll-Monckton).
 9.29: Cello solo—Mr. Harold Beck, "Serenade" (Popper).
 9.33: Soprano solo—Mrs. Claris Shaw, "Moonstruck" (Caryll-Monckton).
 9.37: Dance music—Bailey Marston Dance Orchestra, (a) "Sometimes I'm Happy" (Youmans); (b) "Pansie" (Nicholls).
 9.45: Hawaiian Entertainer—Mr. Franc Hanalei, Hawaiian music on Hawaiian guitar.
 9.55: Duet—Tenor and bass—Radiolian Male Duo, "English Gentleman" (Caryll-Monckton).
 Soprano solo—Mrs. Claris Shaw, "Arms and the Man" (Caryll-Monckton).
 10.0: Dance Music—Bailey Marston Dance Orchestra, (a) "Just Like a Melody" (Donaldson); (b) "Caper Sauce" (Losey).
 10.8: Contralto and bass duet—Radiolian Mixed Duo, "Our Farm" (Caryll-Monckton).
 Final duet—The Radiolians, "City of White" (Caryll-Monckton).
 10.12: Dance Music—Bailey Marston Dance Orchestra, (a) "It Goes Like This" (Friend); (b) "Magic Violin" (Nicholls).
 Dance music by Bailey Marston Dance Orchestra until 11 p.m.
 Announcement.
 "God Save the King."

4YA, DUNEDIN (463 METRES)—FRIDAY, MARCH 8, 1929.

- 3.0 p.m.: Town Hall chimes.
 3.1: Gramophone recital.
 3.15: Lecturette on "Fashions" by Miss Buccleuch, of the D.S.A. Ltd.
 3.30: Gramophone items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session conducted by Aunt Sheila and Big Brother Bill.
 7.15: News session.
 8.0: Town Hall chimes.
 8.1: March—Royal Opera Orchestra, "Marche Militaire" (Schubert) (H.M.V. Record C1279).

Waltz—Royal Opera Orchestra, "Eugén Onegin Waltz" (Tschalkowsky) (H.M.V. Record C1281).

- 8.9: Tenor solos—Mr. Harry Drew, (a) "Take a Pair of Sparkling Eyes" (Sullivan), (b) "Yeoman's Wedding Song" (Poniatowski).
 8.16: Trio—2YA Broadcasting Trio, "Slavonic Dance" (Dvorak).
 8.22: Mezzo-contralto solo—Miss Irene Horniblow, L.R.A.M., "Life and Death" (Coleridge-Taylor).
 8.26: Orchestral—Philadelphia Symphony Orchestra, "Toccata and Fugue in D Minor" (Bach) (H.M.V. Record D1428).
 8.34: Recital—Miss Beryl Cooper, "Song of the Market Place" (Anon).
 8.38: Violin solo—Miss Eva Judd, "Liebestraume" (Liszt).
 8.43: Baritone solos—Mr. Les. Stubbs, (a) "The Wanderer" (Schubert), (b) "Sea Fever" (Ireland).
 8.50: Pianoforte solo—Mrs. Ernest Drake, "Coronach" (Barratt).
 8.54: Baritone and soprano with chorus and orchestra—Apollo Granforte and Hilda Monti (a) "Rivedrai le Foreste Imbalsamate" (Once again shalt thou gaze on our forests); (b) "Su Dunque" (Arise then) ("Aida") (Verdi) (H.M.V. Records D1153).
 9.4: Tenor solo—Mr. Harry Drew, "La Donna E Mobile" (Rigoletto) (Verdi).
 9.8: 'Cello solos—Mr. P. J. Palmer, (a) "Madrigal" (Squire), (b) "Hymn to the Sun" (Rimsky-Korsakov).
 9.18: Mezzo-contralto solos—Miss Irene Horniblow, L.R.A.M., (a) "Silent Noon" (Stanford), (b) "A Japanese Love Song" (Thomas).
 9.25: Violin solos—Miss Eva Judd, (a) "Lullaby" (Scott), (b) "Poeme" (Fibich).
 9.30: Recitals—Miss Beryl Cooper, (a) "How Bannerman Rode the Gray" (Wener), (b) "Listening-in."
 9.36: Grand organ solo—Marcel Dupre, "Prelude and Fugue in G Major" (Bach) (H.M.V. Record D1402).
 9.45: Baritone solo—Mr. Les. Stubbs, "My Friend" (Behrend).
 9.49: Instrumental trios—4YA Broadcasting Trio, (a) "Evening Song" (Schumann), (b) "Ballet Music" ("Faust") (Gounod).
 9.58: Orchestral—San Francisco Symphony Orchestra, (a) "Serenade" (Moszkowski), (b) "Aubade" (Auber).
 Tone-picture—Royal Opera Orchestra, "Shepherd Fennel's Dance" (Balfour-Gardiner) (H.M.V. Record C1469).
 10.6: Close down.

Saturday, March 9

1YA, AUCKLAND (333 METRES)—SATURDAY, MARCH 9.

- 3.0 p.m.: Afternoon session—selected studio items.
 4.0: Literary selection by the announcer.
 4.8: Studio items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by Cinderella.
 7.15: News and market reports—sports results.
 8.0: Chimes.
 8.1: March—Orchestra, "Spirit of America" (Zamecnik). Waltz—Orchestra, "Valse Blue" (Margis).
 8.11: Vocal trios—Snappy Three, (a) "Jeanine, I Dream of Lilac Time" (Shilkret); (b) "Sonny Boy" (de Sylva).
 8.18: Tenor solo—Jno. McCormack, "The Far Away Bells" (Gordon) (H.M.V. record DA914).
 8.22: Humour—Mr. T. T. Garland, "Blow the Man Down."
 8.27: Suite—Orchestra, "Joseph and His Brethren" (Schmidt). 1. Prelude. 2. Caravan Dance. 3. Bacchanalian Dance.
 8.37: Vocal and instrumental—Bohemian Duo, (a) "Beloved" (Snyder); (b) "My Lady" (Rose).
 8.47: Bass-baritone solo—Peter Dawson, "The Admiral's Yarn" (Rubens) (H.M.V. record B2861).
 8.49: Humour—Mr. T. T. Garland, "An Absurdity."
 8.58: Weather report.
 9.0: Suite—Orchestra, "Three French Songs" (Bemberg): 1. Hindoo Song. 2. At Evening (soloist, Mr. Phil. Mohr). 3. Open Thy Blue Eye.
 9.11: Vocal trios—Snappy Three, (a) "Broken Hearted" (de Sylva); (b) "My Heart Stood Still" (Fields); (c) "Bluebird, Sing Me a Song" (Davis).
 9.20: Tenor solo—Jno. McCormack, "Mother Machree" (Ball) (H.M.V. record DA958).
 9.23: Selection—Orchestra, "Iolanthe" (Sullivan).
 9.33: Vocal and instrumental—Bohemian Duo; (a) "Dream River" (Fain); (b) selected.
 9.40: "His Master's Voice" Dance programme:
 Military Band selection—H.M. Coldstream Guards, "Poet and Peasant" (Suppe) (H.M.V. record C1315).
 Foxtrot with vocal chorus—Henry Busse's Orchestra, "One Step to Heaven" (Klages) (H.M.V. EA437).
 Foxtrot—Arcadian's Dance Orchestra, "There's Something About a Rose" (Fain) (Zonophone 5169).
 Waltz—Troubadours, "Diane" (Rapee) (H.M.V. EA269).
 9.59: Duet with violin, banjo, guitar and harmonica—Dalhart and Robison, "My Blue Home" (Robison) (H.M.V. EA295).
 Jazz piano solo—Pauline Alpert, "The Dancing Tambourine" (Ponce) (Zonophone EE98).

Foxtrot—Arcadians Dance Orchestra, "Chilly-Pom-Pom-Pee" (Bryan). Zonophone 5169).

- Foxtrot—Henry Busse's Orchestra, "How About It?" (Klages) (H.M.V. Record EA347).
 10.12: Humour—Norman Long, "Under the Bazunka Tree" (Lee) (H.M.V. Record B2454).
 Wurllitzer organ solo—Jesse Crawford, "High Hat" (Alter) (H.M.V. EA426).
 Foxtrot with vocal refrain—Geo. Olsen and His Music, "Old Man Sunshine" (Dixon), (H.M.V. EA422).
 Foxtrot with vocal chorus—Geo. Olsen and His Music, "Doin' the Racoon" (Klages), (H.M.V. EA446).
 Foxtrot—Louisiana Sugar Babies, "Persian Rag" (Kahn), (H.M.V. EA397).
 10.24: Tenor with orchestra—Jno. McCormack, "Somewhere a Voice is Calling" (Tate), (H.M.V. DA914).
 Waltz—Hilo Hawaiian Orchestra, "Kawaihau Waltz" (Kealakai), (H.M.V. EA397).
 Foxtrot with vocal chorus—Shilkret's Orchestra, "Baby's Blue" (Hupfeld), (H.M.V. EA422).
 Foxtrot with vocal refrain—Statler Pennsylvanians, "It Goes Like This" (Caesar), (H.M.V. EA446).
 10.35: Bass-baritone solo—Peter Dawson, "Now Your Days of Philandering Are Over" (Mozart), (H.M.V. C1401).
 10.39: Violin with kinema organ—Elsie Southgate, "Rose in the Bud" (Forster), (Zonophone 5109).
 Foxtrot—Nat Shilkret's Orchestra, "Nagasaki" (Dixon), (H.M.V. EA412).
 Guitar and piano—Roy Smeck and Art Kahn, "Itchin' Fingers" (Robison), (Zonophone EE119).
 Waltz—Nat Shilkret's Orchestra, "Till We Meet Again" (Egan), (H.M.V. EA412).
 10.52: Community Lancers—Bert Firman's Dance Orchestra, Figures 1, 2, 3, 4 and 5. (Zonophone Records 5117/8).
 11.0: Close down.

2YA, WELLINGTON (420 METRES)—SATURDAY, MARCH 9.

- 3.0 p.m.: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session, conducted by Uncle Toby and Aunt Gwen.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. N. R. Jacobsen, "Athletics."
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture—Orchestra, "Hungarian Lustspiel" (Kela Bela).
 8.11: Quartet—Melodie Four, "The Moon Man" (Macy).
 8.15: Tenor solo—Mr. F. Bryant, "Pale Moon" (Logan).
 8.19: Instrumental—Orchestra, (a) "Mignonette" (Friml); (b) "Destiny Waltz" (Baynes).
 8.29: Vocal quartet—Melodie Four, "Ice Cream" (King).
 8.33: Comic song—Mr. Arthur Chalk, "The Body in the Bag" (Weston and Lee).
 8.38: Novelty—Orchestra, "Virginia" (Haydn Wood).
 8.46: Soprano solo—Mrs. Eleanor Hempton, "Il Bacio" (Arditi).
 8.50: Baritone solo—Mr. R. S. Allwright, "Sleepy Hollow Tune" (Kountz).
 8.54: Instrumental—Orchestra, repeat number.
 9.2: Weather report.
 9.4: Tenor solo—Mr. Sam Duncan, "Angels Guard Thee" (Godard) (by request).
 9.8: Suite—Orchestra, "T'Chaka" (Ring): (1) Before Battle; (2) Monarch; (3) War Dance.
 9.16: Bass solo—Mr. W. W. Marshall, "Will o' the Wisp" (Cherry).
 9.20: Humour—Jno. Henry and Blossom, "Blossom's Film Scenario" (Henry and Reeve) (H.M.V. Record B2384).
 9.27: Comic song—Mr. Arthur Chalk, "The Sizzle of a Sausage" (Weston and Lee).
 9.32: Musical comedy selection—Orchestra, "Cabaret Girl" (Kern).
 9.42: Soprano solos—Mrs. Eleanor Hempton, (a) "The Feast of Lanterns" (Bantock); (b) "My Lady Chloe."
 9.48: Cinema organ solo—Chas. W. Saxby, "Classica" (arrgd. Ewing) (Zonophone Record A334).
 9.55: Quartet—Melodie Four, "When All the World's at Peace" (Grandjean).
 9.59: Instrumental—Orchestra, dance novelties.
 10.5: "H.M.V." dance programme.
 Orchestral—New Light Symphony Orchestra, (a) "Scene de Ballet Marionettes" (Glazounow); (b) "Persiflage" (Francis) (H.M.V. Record B2754).
 Male quartet—The Revellers, "Oh, Lucindy" (Hollingsworth) (H.M.V. Record EA430).
 Foxtrot with vocal refrain—International Orchestra, "Shine on, Harvest Moon" (Norworth) (H.M.V. Record EA407).
 Waltz with vocal refrain—The Troubadours, "Some Day—Somewhere" (Pollack) (H.M.V. Record EA430).
 10.22: Male quartet—National Cavaliers, "Beautiful" (Gillespie) (H.M.V. Record EA430).
 Foxtrot with vocal refrain—Hamp's Kentucky Serenaders, "Blue Grass" (De Sylva) (H.M.V. Record EA407).
 Foxtrot—Geo. Olsen and his Music, "Who?" (Harbach) (H.M.V. Record EA79).

- Waltz with vocal refrain—The Troubadours, "Neapolitan Nights" (Kerr) (H.M.V. Record EA421).
- 10.35: Tenor with orchestra—Jno. McCormack, "The Far Away Bells" (Gordon) (H.M.V. Record DA914).
- Waltz—Hilo Orchestra, "Louisiana Lullaby" (Zoeller) (H.M.V. Record EA874).
- Hawaiian orchestra—Hilo Hawaiian Orchestra, "Hawaiian Nights" (Roberts) (H.M.V. Record EA810).
- Foxtrot—Hilo Orchestra, "My Bird of Paradise" (Berlin) (H.M.V. Record EA874).
- Violin with cinema organ—Elsie Southgate, "I Hear You Calling Me" (Marshall) (Zonophone Record 5109).
- Foxtrot—Statler's Pennsylvanians, "Happy-Go-Lucky-Lane" (Lewis) (H.M.V. Record EA853).
- Foxtrot—Geo. Olsen and his Music, "Sunny" (Harbach) (H.M.V. Record EA79).
- 10.58: Vocal with guitar—Harry McClintock, "The Big Rock Candy Mountains" (McClintock) (Zonophone Record EE125).
- Foxtrot—Harry Reser's Banjo Boys, "Down South" (Myddleton) (H.M.V. Record EA853).
- 11.5: Close down.

3YA, CHRISTCHURCH (306 METRES)—SATURDAY, MARCH 9, 1929.

8 p.m.: Afternoon session—Selected studio items.

- 4.25: Sports results.
- 4.30: Close down.
- 6.0: Children's session conducted by Chuckle and Aunt Pat.
- 7.15: News session.
- 7.30: Sports results.
- 8.0: Chimes.

VAUDEVILLE PROGRAMME.

"The Revellers" Concert Party in
HUMOUR AND SONG.

- 10.0: "His Master's Voice" Dance programme.
Band—American Legion Band, "March Salutation" (Seitz), (Zonophone Record EE74).
- Foxtrot with vocal chorus—Nat Shilkret's Orchestra, "Lonesome in the Moonlight" (Russell) (H.M.V. Record EA431).
- Foxtrot—Nat Shilkret's Orchestra, "Fascinating Vamp" (Nussbaum) (H.M.V. EA367).
- Foxtrot—Nat Shilkret's Orchestra, "What's the Reason?" (Atteridge) (H.M.V. EA378).
- 10.13: Tenor solo—Maurice Gunsby, "Lay My Head Beneath a Rose" (Falkenstein) (Zonophone EE17).
- Foxtrot—Coon Sander's Orchestra, "Ready for the River" (Kahn) (H.M.V. EA378).
- Foxtrot—Paul Whiteman's Orchestra, "It Was the Dawn of Love" (Davis) (H.M.V. Record EA381).
- Waltz—Rhythmic Eight, "Neapolitan Nights" (Zamecnik), (Zonophone EE106).
- Waltz with vocal refrain—Goodrich Silvertown Cord Orchestra, "The Church Bells are Ringing for Mary" (Colby) (H.M.V. EA381).
- 10.27: Comedian with orchestra—Frank Crumit, "The Song of the Prune" (Crumit) (H.M.V. EA366).
- Cinema organ solo—Chas. W. Saxby, "For My Baby" (Kahal) (Zonophone 5143).
- Foxtrot—Arcadian's Dance Orchestra, "Singapore Sorrows" (Le Soir) (Zonophone EE106).
- Waltz—Victor Arden and Phil Ohman's Orchestra, "Chiquita" (Wayne) (H.M.V. EA396).
- 10.40: Tenor with orchestra—Franklyn Baur, "Beloved" (Kahn), (H.M.V. EA392).
- Foxtrot—Paul Whiteman's Orchestra, "Louisiana" (Razaf) (H.M.V. EA386).
- Male trio with piano—California Humming Birds, "I Just Roll Along" (Trent) (H.M.V. EA356).
- Foxtrot—Paul Whiteman's Orchestra, "Dixie Dawn" (Trent) (H.M.V. EA386).
- 10.53: Male trio—California Humming Birds, "She's a Great, Great Girl" (Woods) (H.M.V. EA356).
- Waltz—Rhythmic Eight, "Momsy" (Yellen) (Zonophone EE104).
- 11.0: Close down.

4YA, DUNEDIN (463 METRES)—SATURDAY, MARCH 9, 1929.

- 7.15: News session.
- 8.0: Town Hall chimes.
- 8.1: Relay of orchestral music from Octagon Theatre orchestra under the conductorship of Monsieur Henri de Rose (Mus.Bac.).
- 8.11: Soprano solos—Mrs. D. Carty, (a) "My Ain Wee House" (Wilson); (b) "Hame O' Mine" (Murdoch).
- 8.18: Recital—Mr. Lester Moller, "How to Attain Old Age" (Leacock).
- 8.23: Chorus with orchestra—Light Opera Co., Gems from "Countess Maritza" (Smith) (H.M.V. Record EE11).
- 8.27: Light songs—Miss Minna Ahlers, (a) "Sweet Le Le Hua" (Traditional); (b) "Jackoranda" (Anson).
- 8.33: Humorous Scottish song—Mr. Buster Brown, "Back, Back to Where the Heather Grows" (Lauder).
- 8.57: Relay of orchestral music from the Octagon Theatre.
- 8.47: Soprano solo—Mrs. D. Carty, "Under the Deodar" ("The Country Girl") (Monckton).

- 8.51: Tango Argentino—International Novelty Orchestra, "Y Como Le Va?" (Valverde), (H.M. V. Record EA364).
- 8.55: Recitals—Mr. Lester Moller, (a) "Goodbye—God Bless You" (Field); (b) "A Quate so Story" ("Punch").
- 9.3: Weather report.
- 9.5: Chorus with orchestra, Light Opera Co., Gems from "Rose Marie" (Friml) (H.M.V. Record C1205).
- 9.9: Light song—Miss Minna Ahlers, "Without You, Sweetheart."
- 9.13: Humorous Scottish songs—Mr. Buster Brown, (a) "Inverary" (Lauder); (b) "The Wedding O' Lachie McGraw" (Lauder).
- 9.21: Band and whistlers—Pryor's Band, "The Whistler and His Dog" (Pryor) (H.M.V. Record EA26).
- Male voices—Revellers, "Dream River" (Brown) (H.M.V. EA384).
- "Columbia" Dance Programme.
- 9.30: March—H.M. Grenadier Guards Band, "Twist and Twirl" (Kottauin) (Columbia Record 0987).
- Foxtrot with vocal chorus—Denza Dance Band, "Dance of the Blue Danube" (Fisher) (Columbia Record 01151).
- Foxtrot—Biltmore Hotel Orchestra, "Sweet Sue—Just You" (Young) (Columbia 01249).
- Foxtrot with vocal refrain—Paul Whiteman's Orchestra, "Just a Sweetheart" (Dreyer) (Columbia 07015).
- 9.40: Tenor solo—Alfred O'Shea, "Love's Garden of Roses" (Wood) (Columbia 04117).
- Vocal duet—Layton and Johnstone, "Because my Baby Don't Mean 'Maybe' Now" (Donaldson) (Columbia 01339).
- Piano duet—Constance Mering and Murial Pollack, "High Hat" (Foxtrot) (Alter) (Columbia 01224).
- Foxtrot—Picadilly Revels Band, "Dolores" (Kassel) (Columbia 01157).
- Waltz with vocal refrain—Paul Whiteman's Orchestra, "Where is the Song of Songs for Me?" (Berlin) (Columbia 07015).
- 9.57: Soprano and male quartet—Norah Blaney and Ramblers, "Just Like Darby and Joan" (Leslie) (Columbia 01170).
- Piano solo—Gil Dech, "Sometimes I'm Happy" (Youmans), (Columbia 01205).
- Foxtrot with vocal refrain—Paul Whiteman's Orchestra, "Roses of Yesterday" (Berlin) (Columbia 07014).
- Novelty foxtrot—Debroy Somers' Band, "Laughing Marionette" (Collins) (Columbia 01341).
- Waltz with vocal refrain—Paul Whiteman's Orchestra, "The Sidewalks of New York" (Lawlor) (Columbia 07014).
- 10.14: Tenor with orchestra—Alfred O'Shea, "Love, Here is My Heart" (Ross) (Columbia 03589).
- Xylo-rimba orchestra, "Along Miami Shore" (Waltz) (Warren), (Regal G20328).
- Marimba orchestra—Rio Marimba Orchestra, "My Isle of Golden Dreams" (Blaufuss) (Columbia 02685).
- 10.24: Humour—Flotsam and Jetsam, "Optimist and Pessimist" (Hilliam) (Columbia 0995).
- Hawaiian—South Sea Islanders, "Dreamy Hilo Bay" (Clark), (Columbia 01162).
- Instrumental Hawaiian selection—King's Hawaiian Players, "Hilo March" (Berger) (Columbia 01226).
- Pipe organ solo with vocal chorus—Milton Charles, "Are You Happy?" (Ager) (Columbia 01184).
- 10.38: Tenor solo—Chas. Hackett, "The World is Waiting for the Sunrise" (Lockhart) (Columbia 03596).
- Vocal with piano—Vaughan de Leath, "I Just Roll Along" (De Rose) (Columbia 01136).
- Waltz—Xylo-rimba Orchestra, "My Sweetheart" (Nelson), (Regal G20328).
- Vocal with piano—Vaughan de Leath, "Watching for the Boogie Man" (Johnson) (Columbia 01136).
- 10.51: Piano-accordion solo, Guido Deiro, "Toselli's Serenade" (Arranged Deiro) (Columbia 01308).
- Duet with piano—Layton and Johnstone, "Good News—Varsity Drag" (de Silva) (Columbia 01308).
- Vocal duet—Jack Lumsdaine and Len Maurice, "Goodnight" (Wald) (Columbia 01191).
- 11.0: Close down.

Sunday, March 10

1YA, AUCKLAND (333 METRES)—SUNDAY, MARCH 10.

3 p.m.: Afternoon session—Selected studio items.

- 4.30: Close down.
- 6.0: Children's session, conducted by Uncle Leo.
- 6.55: Relay—St. Andrew's Church, Divine Service. Preacher, Rev. George Budd. Organist, Dr. Neil McDougall.
- 8.30: Overture—Ketebeys' Concert Orchestra, "Chal Romano" (Ketebeys) (Columbia Record 02693).
- 8.38: Vocal duet—Madame Mary Towsey and Mr. John Bree, "When the Lilac Bloom Unclothes" (arr. Clutsam).
- 8.42: Violin solo—Albert Sammons, "Elegie" (Massenet) (Columbia Record 02687).
- 8.45: Baritone solo—Mr. John Bree, "Eleanore" (Coleridge Taylor).
- 8.49: Instrumental quartet—Lener String Quartet, "Quartet in G Minor" (Adagio and Finale) (Debussy) (Columbia Record 04211-2 and 3).
- 9.3: Soprano solo—Madame Mary Towsey, (a) "None but the Aching Heart" (Tschaiakowsky); (b) "O Mio Fernando" (La Traviata) (Donizetti).

- 8.10: 'Cello solo—W. H. Squire, "Chanson Hindoo" (Korsakov) (Columbia Record 03607).
 9.14: Baritone solo—Mr. John Bree, "To Mary" (White).
 9.18: Orchestral—Columbia Symphony Orchestra, "Maritana Overture" (Wallace) (Columbia Record 02682).
 9.26: Vocal duet—Madame Mary Towsey and John Bree, "I Would That My Love" (Mendelssohn).
 9.30: Close down.

2YA, WELLINGTON (420 METRES)—SUNDAY, MARCH 10, 1929.

- 3.0 p.m.: Afternoon session—Selected studio items.
 4.30: Close down.
 6.0: Children's Sunday Service, conducted by Uncle George.
 7.0: Relay of service from Taranaki Street Methodist Church—Preacher: Rev. Clarence Eaton. Organist and choirmaster: Mr. H. Temple White.
 8.15 (approx.): Studio concert.
 Instrumental—Berlin Opera Orchestra, "Prelude—The Mastersingers" (Wagner) (Parlophone records A4029-30).
 Soprano solo—Madame Emily Briggs, "I Will Extol Thee" (Costa).
 Pianoforte solos—Ignaz Jan Paderewski; (a) "Nocturne in F Sharp Major" (Chopin); (b) "La Campanella" (Poginini-Liszt) (H.M.V. record DB1167).
 Vocal duet—Madame Emily Briggs and Mr. S. E. Rodger, "What Have I to do With Thee, O Man of God" ("Elijah") (Mendelssohn).
 Viola solo—Lionel Tertis, "Sonata in A Major" (Mozart, arrgd. Tertis) (Columbia record 04156).
 Contralto solo—Miss Edith Buckmaster, "The Home Songs" (Little).
 Flute solo—John Amadio, "Flute Concerto" (Mozart) (H.M.V. record C1533).
 Baritone solo—Mr. S. E. Rodger, "A Psalm of Life" (Cowan).
 Overture—Grand Symphony Orchestra, "Fra Diavolo" (Auber) (Parlophone record A4022).
 Soprano solo—Madame Emily Briggs, "Serenade" (Gounod).
 Orchestral—Symphony Orchestra, (a) "Ritual Fire Dance" ("Love the Magician") (De Falla); (b) "La Vida Breve" (Spanish Dance) (De Falla) (H.M.V. record D1453).
 Vocal duet—Martinelli and De Luca, "Invano Alvaro" (In vain, Alvaro) ("Le Forza dell Destino") (Verdi) (H.M.V. record DB1172).
 Violin solos—Erica Morini, (a) "Introduction and Tarantelle" (Sarasate); (b) "Romanza Andaluza" (Sarasate) (H.M.V. record D1445).
 Contralto solos—Miss Edith Buckmaster, (a) "The Little Silver Ring" (Chaminade); (b) "A Pearl for Every Tear" (Liddle).
 Orchestral—Marek Weber's Orchestra, "Vienna by Night" (Komzak) (H.M.V. record C1507).
 Baritone solo—Mr. S. E. Rodger, "The Devout Lover" (White).
 Band selection—H.M. Coldstream Guards, "Semper Fidelis March" (Souza) (H.M.V. record B2647).
 Close down.

3YA, CHRISTCHURCH (306 Metres)—SUNDAY, MARCH 10, 1929.

- 3.0 p.m.: Afternoon session—Selected gramophone items.
 4.30: Close down.
 5.30: Children's song service conducted by Uncle David.
 6.15: Hymn tunes.
 6.30: Relay of service from the Church of Christ, Moorhouse Avenue—Preacher: Rev. J. Crawford. Organist: Miss E. Hepburn. Choirmaster: Mr. H. Ames.
 (approx.): Studio concert.
 Overture—Berlin State Opera House Orchestra, "The Merry Wives of Windsor" (Nicolai), (Parlophone Record E10588).
 Contralto solos—Miss Nellie Lowe, "Woe Unto Them" (Mendelssohn).
 Orchestral—Berlin State Opera House Orchestra, "Tristan and Isolde" Prelude (Wagner), (Parlophone Records E10508/9).
 Baritone solo—Mr. A. G. Thompson, "Is Not His Word Like a Fire?" ("Elijah")—Mendelssohn).
 Mezzo-soprano solos—Miss Mavis Spiller: (a) "Hear Us, O Saviour" (Hamblin), (b) "Creation's Hymn" (Beethoven).
 Orchestral—Berlin State Opera Orchestra, "Iris—Dances" (Mascagni), (Parlophone Record AR1012).
 Contralto and baritone duet—Dulcet Duo, "The Enchanted Hour" (Leoni).
 Choral with orchestra—Pertile, Ferraaris, Righetti and Baromeo—"Un Ballo in Maschera" (Verdi); (a) "La Rivedra nell'estasi"; (b) "E Scherzo, od e Follia." (Parlophone Record R20007).
 Contralto solo—Miss Nellie Lowe, "Like as the Hart" (Allitsen).
 Orchestral—Berlin State Opera Orchestra, "Lohengrin" (Wagner), (Parlophone Record E10587).
 Baritone solo—Mr. A. G. Thompson, "It is Enough" ("Elijah")—Mendelssohn).
 Violin solo with instrumental trio—Dajos Bela Trio, "Meditation" (Thais), (Parlophone Record E10580).
 Mezzo-soprano solo—Miss Mavis Spiller, "I Shall Not Pass Again This Way" (Baynton Power).
 Baritone solo—Giovanni Inghilleri, "Othello—Il Credo" (Verdi), (Parlophone Record AR1014).
 Chorus with orchestra—Berlin State Opera Chorus, "Aida—Triumphal March" (Verdi), (Parlophone Record R20013).
 Close down.

4YA, DUNEDIN (463 METRES)—SUNDAY, MARCH 10.

- 5.30 p.m.: Children's Sunday service, conducted by Big Brother Bill.
 6.30: Relay of service from St. Andrew's Street Church of Christ. Preacher, Pastor W. D. More. Organist, Miss Stokes.
 8.0 (approx.): Relay of band concert from St. Kilda (St. Kilda Band, under the conductorship of Mr. James Dixon).
 9.15: Close down.

Some Descriptive Notes

"CHE faro senza Euridice?" ("What shall I do without Eurydice?") is from Gluck's "Orpheus." It is to be sung by Miss Dulcie Mitchell at 3YA on Wednesday, March 6. The background of the song is this: Eurydice, the wife of Orpheus, is dead. The sorrowing husband is allowed to descend into Hades and bring her back, but he must not, in doing so, look on her face. He finds her, and bids her follow him. She, not understanding his averted look, thinks that he no longer loves her, and weeps so that he forgets his vow, and shows his love in one glance. She falls lifeless. "Che faro?" expresses the husband's sore grief. In the end, the god of Love, touched by his distress, again restores Eurydice to him.

LISTENERS have previously enjoyed a harpsichord solo, played by Friedman. Now, from 3YA on Wednesday next, March 6, they will hear another novelty in the form of a harpsichord and viola da gamba duo.

The piece to be played was specially written by Handel for these old-time instruments. The harpsichord was, of course, the prototype of the modern piano. It had a keyboard, but its strings were plucked and not struck with a hammer, as is the case in a piano. The viola da gamba, or "leg viol," was so-called because it was played resting between the legs. Imagine the familiar 'cello, with a longer neck, sloping shoulders, and six strings, and you have an idea of the viola da gamba. The viola da gamba was the most important instrument of its type, since it was the one most used for solo work, but it is specially interesting on the present occasion because it is now very rarely heard in solo items. The viola da gamba produced many notable virtuosos, and it was the popular instrument of accompaniment after the lute, and the foundation of the ensemble.



**The
Very
Best
Value
Of All!**

LISSEN B BATTERIES

LISSEN B Batteries cost much less than other Batteries of even lower voltage, and they give service equal to, if not better than, others at this price.

If you want value in Radio B Batteries choose a Lissen.

Prices: 60 volts 13/6, 100 volts 22/6

Lissen Batteries and Radio Parts have a world-famous reputation for SERVICE and VALUE.

LISSEN Radio Parts—There's one for every Radio Need!

Your Radio Dealer can supply you—or send to—

ABEL, SMEETON LTD.,
CUSTOMS STREET EAST :: AUCKLAND.

Orchestra Practico.

THE controversy surrounding the mysterious American station which is occasionally to be heard "heterodyning 1YA" with music between 7.15 and 8 p.m. during the news session, grows more thrilling week by week, in fact, the mystery of how the apple got into the dumpling is not a patch on it.

May I suggest that in order to set all minds at rest and to save us hearing the same music twice over in one evening from 1YA's excellent orchestra, that they should only try it over in the next room at such times as the station is not on the air. Ootherwise, no complaints!—G. FRASER (Ohura).

Maori Language and Pronunciation.

IT was very interesting to listen-in to Mr. Hare Hongi's pronunciation and so clearly expressed explanations of the meanings and the myths stored up in Maori places and names. It must have surprised some to hear Paraparamu properly pronounced, for we are all accustomed to hearing Pakehas pronouncing it Parapa-rum. Then there is Rongotai (near Lyall Bay, Wellington), always pronounced as Wrong-go-tie or Rong-go-tai. It is hoped that teachers of languages will listen-in to a master like Hare Hongi, who so clearly renders in English the interpretation and also gives us the true Maori pronunciations.

The Natives of our country are now dying out, and the language and customs will die out with them, unless we do something to preserve these. In the coming years only highly educated scholars and research students will be able to discuss this so beautiful and mellifluous language, and the pity of it!

The Radio Broadcasting Company is to be congratulated on securing the services of one who is so widely recognised as being a scholar in and authority on, the Maori language, life and customs.

We would appreciate it very much if all Pakehas were to pronounce the beautiful words Kia Ora in a phonetic

Our Mail Bag

Will correspondents please practice brevity, as heavy demands are now made on space. All letters must be signed and address given as proof of genuineness; noms de plume for publication are permitted. Address correspondence Editor, "Radio Record," P.O. Box 1032, Wellington.

manner, instead of mutilating it, as commonly and wrongly pronounced Key-Ohra and Kai-Ohra.

Wishing your readers those who are interested in the study of the Maori race the best of luck.—RORE JOS-EPH (Maniapoto Tribe, Te Kuiti).

Shakespearean Relay Appreciated.

IN enclosing postal note for the "Radio Record," I wish to express my appreciation of the programmes, especially from 4YA and 2YA. I consider that the Dunedin programmes are of a very high order and if fewer gramophone items were included, excellent. 4YA is always to the fore in long-distance transmissions and rebroadcasts and from my point of view, gives a very satisfactory service. I wish to congratulate the management of 2YA on the success of the relay of the "Merry Wives of Windsor." Reception was well-nigh perfect here, and the only fault was that the relays were too short. Let us hope a similar relay may be arranged from 4YA when Mr. Wilkie's company is here. It is by such special attractions that new listeners are found and I am sure the results would amply warrant the cost of the relay. Trusting the Radio Broadcasting Company will do its best to arrange a relay for 4YA.—G. F. HALL (Dunedin).

Widen the Service.

I NOTE that the Postmaster-General has decided that there shall be no B grade stations, and this plainly indicates that the Government considers the present service in terms of number of the YA stations the most satis-

factory arrangement. With the exception of 2YA the service-range of the YA stations is totally inadequate for the needs of this country, and development is by far too slow. It is to the advantage of both the Government and the Broadcasting Company that this service be improved, and that immediately. Listeners' licenses appear to be gradually increasing in numbers, and if the authorities are going to wait until they have saved enough cash before they extend the service, then heaven knows when New Zealand will get a really satisfactory radio service. It is apparent that the licenses taken out in the four radio districts are more or less in proportion to the power ratings of the stations in those districts, and if a 5kw. plant was installed in each large centre, the licenses would double in number within the first year following the change due to the vastly increased service range.—"COMMON COUNTRY LISTENER."

Set Working When Disconnected.

I THINK Mr. R. O. Boyens, of Invercargill, will find that when he has his 'phones or speaker disconnected the sounds he talks of are probably coming from the L.F. choke, which when in use has a powerful magnetic field caused by the current flowing through it. Lately, one or two of the bolts, or screws, may have loosened a little and the magnetic strains "pulled" and "pushed" at the then laminated core. The core, too, may have loosened, perhaps ever so slightly, but enough to move backwards and forwards as the magnetism attracts and repels. In effect, a "diaphragm" is formed responding to the plate current and setting up sound waves in the same manner as a loudspeaker.—R. J. CHILDS (Wellington).

Crystal V. Oscillator.

RE the test last night from 2YA, Crystal v. Master Oscillator. I would like to let you know how the reception was in my locality. The first part of the programme was perfect, the items being very distinct, with not one fading note, Mr. J. S. Webb in the play being particularly clear and distinct, every word coming out clearly, but after changing over to the master oscillator the programme was spoilt by short, spasmodic fading, when the voice was practically inaudible, but would come on again in a few seconds. Except for this fading, which continued through the latter half of the programme, the reception of the master oscillator was good, but the crystal gave a perfect reception in every way.—CECIL RIDLAND (Paia, Otago Central).

A Reverse View.

I FOLLOWED your test of 2YA on crystal control and master oscillator control last Thursday. Master oscillator control was far ahead of the crystal control. The record was much clearer, and also the band, which was far sweeter. 2YA faded and distorted with both controls, but the fading and

distortion cleared up far quicker on oscillator tube control, due probably to the fact that on crystal control 2YA tunes sharper and takes longer for distortion periods to clear up. I think the fading is past 2YA control, and we will have to put up with it, as 2YA fades with both controls. Only master oscillator control always suited this district best. 2YA always was far sweeter and mellow here before crystal was adopted, for both afternoon and evening sessions.—A. R. GARDINER (Purua, Banks Peninsula).

Rebroadcasts Not Desired.

I THINK it is time 3YA stopped rebroadcasting 2YA's transmission every other Saturday. Instead of getting the choice of two programmes we only have one, as both stations have the same on. The other two stations, 4YA and 1YA, are not worth bothering about on account of their heavy fading periods. I think it is done to save expenses. This is mine and several others' opinion, as it must be a save not having any artists to pay at 3YA—only a set going to pick up 2YA. I do not see how it benefits crystal set users, as they must get a lot of distorted music, like last Saturday evening, when it was so bad that 3YA had to put on records.—A.R.G.

ONE of the loudspeakers now being used in Melbourne at a talking moving picture theatre is so large that a boy can sit comfortably in the mouth of it.

EMMCOSTAD

for all types of valves

EMMCOSTAD LINE.

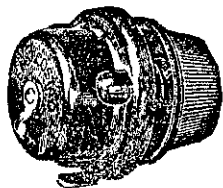
Designed for controlling the filament current for all types of valves, for use in resistance coupled amplification, and for use in "B" Battery Eliminators, the Emmcostad line is unequalled for performance on this market. Wherever a universal radio resistance is required, ask for an Emmcostad, and specify the number. The Emmcostad has a bakelite knob and casing, one-hole mounting, will not pack and is unaffected by heat or moisture.

Power Studs, large size 12/6

MADE BY ELECTRICITY METER MANUFACTURING CO., LTD.

Distributors for New Zealand:

JOHNS LTD., Chancery Street, AUCKLAND.
THOS. BALLINGER & SONS, LTD., Victoria St., WELLINGTON.
L. B. SCOTT LTD., Worcester Street, CHRISTCHURCH.



EMMCOSTAD LINE

ALL EMMCO PRODUCTS
ARE FULLY GUARANTEED

Phenomenal Success

The tremendous demand for Siemens' Super-Radio Batteries is proof conclusive that Radio Listeners everywhere are quickly learning the many advantages of this better battery.

If you would enjoy perfect reception, place your order now.



SIEMENS

SUPER RADIO

HT DRY BATTERY

Specially designed for High Power Receiving Sets. Extra large capacity unit cells.

36 cells—50 volts (nominal).

Price 31/6

Weight, 20 lbs.

N.Z. Agents:

CORY-WRIGHT AND SALMON,
Engineers, Wellington and Auckland.

The Full Wave Variometer Set

A REQUEST was made last week for a variometer crystal set that would give double the strength of an ordinary set, and so to meet this request the full wave set, in some respects similar to the full wave crystal set, is given this week. Before proceeding with the details the writer considers it worth while to take a little space to explain the action of the variometer.

A variometer consists chiefly of two coils of wire connected in series. When a current of electricity is passed through a coil it creates around itself a magnetic field, and if placed near to another coil will influence by its magnetic field. If two coils are placed in series and in such a position that they cannot influence one another the total inductance is half that of one coil. When one is placed within the other, the strength of the magnetic field is increased, and if the inner one is movable, the intensity of this field can be regulated at will. The regulating of the magnetic field determines the wave-length, and so the variometer came into being as a wavelength control.

In general, it gives smooth tuning, not quite so fine as a moving condenser but finer than the slider. Some few years back, this type of inductance was very popular, but of latter years it has been displaced by the fixed coil tuned with a condenser. However, many of our readers consider the variometer still maintains the pre-eminence.

A Simple Variometer.

IN our issue Vol. 2, No. 26, a simple variometer crystal set was described, and it has proved so successful that interest was created in the full-wave variometer. The constructor who intends building up a full-wave set must bear certain points in mind. His crystals must be perfect, that is, they must pass current in one direction only. If one crystal passes current in the wrong direction, no matter how small it will be, this current will return through the circuit to the other crystal and will offset its strength by the amount that is eked back. This explains why many constructors have not had success with the full-wave crystal set.

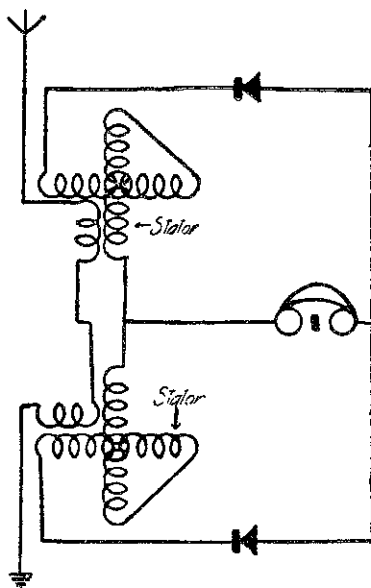
A crystal can be quite easily tested by the 'phones and cell method. A distinct click should be heard in one direction, while on the terminals being reversed, nothing at all should be heard. If the faintest suggestion of a click is perceptible, the crystal is not perfect, and the total result will be less than that of an ordinary crystal set. Permanent crystals are generally more suitable for this type of circuit than the wat-whisker or even the perikon type. The reason for this is that if the contact is not being made with the most sensitive point on the crystal, efficiency is being lost, and some of the signals are working back and spoiling reception from the other.

Another point to be noticed is that the inductances (coils or variometer) must be balanced. If the readings are at different points on each dial, this indicates that the coils are not balanced, and turns must be added or taken off until both read at the same points. If the constructor bears these

two points in mind, he will have little difficulty in making the set, and in getting very fine results. Some claim that a loudspeaker can be worked at comfortable strength from a set of this type.

The Circuit Diagram.

IT is not proposed in this article to give full constructional details of the variometers. These were fully described in the number already referred



to, and if the constructor would turn this up, he will find no difficulty.

The variometers need not necessarily be constructed exactly as shown. If a 3in. or 4in. cylindrical former is taken and 18 turns of 24-gauge wire (silk or cotton-covered) be put on, then the wire taken over to the other half of the former and another 18 turns put on, the wire passed through and on to a 3in. or a 2in. former, and 14 turns put on, corresponding to the other half, and 14 more turns put on, and the wire carried out, an efficient variometer can be made. A space has been left between each half of the winding. This is to allow of a central rod being passed through to control the inner or rotor coil. Over the first half of the coil comprising the stator, wrap a couple of layers of shellaced brown paper or empire cloth. Over this wind 15 turns of wire. Connect one end to the aerial, and the other to the primary winding of the other variometer. The free end passes to earth.

The rest of the connections to be made can be quite easily ascertained from the diagram. Connect the beginning of the rotor stator to the crystal. The other free end, that is from the rotor, is connected to the 'phones and to the stator of the other variometer. The rotor of this latter passes to one crystal. The free ends of the two crystals are now joined, and this wire

passes to the free end of the telephones.

The constructor will possibly have to experiment a little to get the right number of turns for his particular station, but the above are a guide, and although not the same as those given previously, should do equally well. This set gives plenty of scope for the enthusiast, and in presenting it, "Galena" would like to hear the results of some of the constructors.

Points Regarding Wave-Traps

P.R.S. (Auckland) writes asking the following questions:—

1. I wish to build a crystal set and wave-trap inside a Lucos coil screen, but find that a 3-inch former at 60 turns that signals are loudest when the coil is halfway in. What can I do to get the same signals full in? I want 1YA only.

ANSWER: It appears as though there are too many turns on the coil, although the correspondent has not made his point clear as to what he means by the coil halfway in. Generally, to reduce wave-length take off turns, and when the condenser reduces it to 0, it would indicate that there are too many turns. A wave-trap should not be shielded.

2. My B battery registers 18 volts, using a Philips 141 valve. Is it necessary to incorporate a choke and condenser?

ANSWER: No. A choke and condenser is necessary only when a large output, greater than that which the valve in question can handle, is to be dealt with.

3. An ingenious diagram embodying wave-trap, crystal set, and direct aerial, is sent, and the correspondent wants to know if it is correct.

ANSWER: It is O.K.

4. Is a fixed crystal a Foromodensar all right as both can be fitted into the tin?

ANSWER: This we cannot say. The best plan is to try.

5. You say, "To find the number of turns on a coil, divide the wave-length by 7." What size does this imply?

ANSWER: If tuned with a .0005 condenser, and the coil wound on a 3-inch former, this would give the requisite number of turns.

6. Is it possible to adjust the condenser so that by means of the D.P.T.D. switch it would be unnecessary to tune on each occasion?

ANSWER: It would be possible, but it is rather too complicated to be worth while.

A Hint for the Crystal Set Owner

ONE or two of the makers of commercial sets employ the sliding contact on a plain solenoid type of coil for tuning purposes. One slide of the coil has been scraped, and a sliding arm is usually adjusted from the outside. After several months of use the exposed copper becomes coated over with a thin film of oxide and tuning becomes difficult, signals dying out, and the next moment coming back.

Matters can generally be improved by rubbing this layer of bare wire over with fine sandpaper, and wiping over with a clean cloth. Also clean the underside of the sliding arm where contact is made.

Easter Vacation Trips by RAIL

Four weeks now . . . and then Easter—the last chance for a healthful vacation before summer sunshine gives way to winter gloom.

Cheap railway fares will be in operation from 26th March to 1st April, available for return until 4th May.

Literature featuring the principal Tourist Resorts will be Mailed on application to the Officer-in-Charge, Publicity Branch, New Zealand Railways, Wellington.

A Home-made Dynamic Cone

Constructional Details of Radio's Most Popular Speaker

By "PENTODE"



PROBABLY no other accessory has aroused such universal interest among all the wireless enthusiasts throughout the world as the moving coil speaker.

There is no doubt, that, when properly used, it gives the most faithful reproduction of the original, and although it is not a new invention it is the very latest development offered by science to a critical public. No one can deny that the reproduction of gramophone records by any of the recently introduced electrically controlled gramophones is far short of listening to the original. Each of these instruments uses a moving coil speaker fed by a powerful amplifier, similar, but on a larger scale, to that used in any multi-valve receivers. The amplifier is, of course, partly responsible for the high degree of perfection, but the speaker does its share in reproducing faithfully what is fed into it by the amplifier. This is more than can be said of any other type of speaker. The tendency nowadays among the greater part of the wireless enthusiasts is to improve their amplifiers. Power valves are used, reliable audio transformers are substituted, etc., but improvement in actual reproduction can only be advanced to one point, namely, the efficiency of the loud speaker to handle faithfully all that is delivered to it. After this, further improvement to the amplifier is futile. It is the ambition of many to own a high-class speaker, one which will give true reproduction providing the amplifier approaches perfection. Knowing that the loud speaker is as near perfect as possible, it gives one far more comfort to realise that everything depends on the amplifier. Adjustments

can be made, and their effect noted, knowing that as far as the speaker is concerned it is quite reliable.

Types of Dynamic Cones.

BEFORE dealing with the constructional details of a dynamic speaker, it would be just as well to enumerate the various types existing and describe the working principle of each.

The moving coil speaker was discovered years ago, before the advent of broadcasting, but it is not until recently that it has been taken seriously, and improvements made. The first commercial speaker was known as the Rice Kellogg, and at the time of its release it created world-wide interest. In England it was manufactured by the B.T.H. Company, who had the patent rights in that country. To many the price seemed exorbitant, but the whole unit also contained a power amplifier as well as the speaker, and the speaker could not be obtained without this amplifier.

Previous to this came the Magnovox public address speaker, but this, of course, although operating on the moving coil principle, was a horn type of speaker, and was limited to the reproduction of the frequencies that the design of the horn would allow. The only advantage this speaker possessed was the enormous volume obtainable and was chiefly used for speech.

Since the introduction of the R.K. only improvements in design and assembly have been evolved. The principle in all cases is identical.

If a coil of wire through which an insulating current is passing is suspended in a powerful magnetic field with the lines of magnetic force cutting through the turns of wire at right

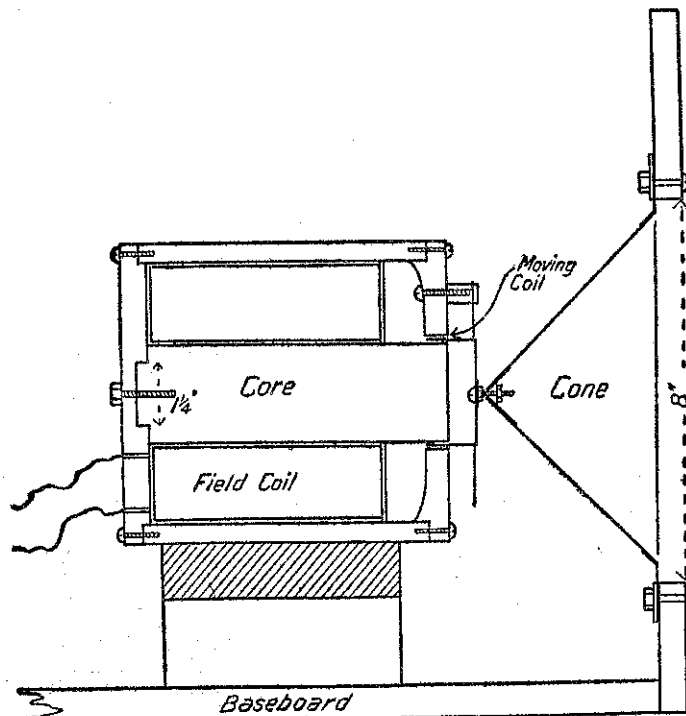
angles, the coil will move backward and forward in a piston movement, in time with the frequency of the alternations of current. Now, if a cone or other rigid surface is attached to the coil, the air will be made to move in the vicinity of the apparatus depending upon the movement of the coil and cone. Again, if the alternations of current were varying at the rate of 256 times a second, the coil and cone would move accordingly, and the note, middle C, would be heard. This is the simple principle upon which the moving coil speaker depends and from which the wave is derived.

In some types of speakers this magnetic field is produced by permanent magnets, while others use electro magnets. Since it is the latter type in which we are interested the writer will briefly show how the principles are embodied in practical methods. The whole speaker can be divided into two sections. In one the question of the strong magnetic field is studied, while

involved will it seem. Let it be said that most of the manufactured ones are built having a high degree of efficiency, but there is no reason why anyone handy with tools and possessed with a fair amount of patience—this latter virtue is important—should not build a good instrument providing they do not aim to have the finished article as neat and compact as the very best commercial ones. Here are a few of the most important points upon which the efficiency of a speaker depends:—

1. The magnetic field in which the moving coil, or "voice coil" as it is called in America, is suspended.
2. The method of suspension and centring of the coil and cone.
3. The material of which the cone is made and the shape of the same.
4. The number of turns of wire on the moving coil and their relation to the output of the amplifier.

In each of these cases it will be found that manufacturers have taken



the other deals with the moving coil and cone.

FIGURE I. shows a coil of wire wound around an iron cone. At one end an iron plate is fixed to an iron cover surrounding the whole. At the opposite end is a similar iron plate, except that a small air gap exists between it and the iron cone. Now, it is in the air gap that the magnetic field has to be produced, and it is in this gap that the moving coil has to be suspended.

Attached to the moving coil either direct or indirect, is the cone and various suspending and centring devices that will be mentioned later. Now, to many, the construction of a speaker of this description will seem well-nigh impossible. The more one studies the various factory-built units the more

great precautions. Take point No. 1. This magnetic field in the type of speaker under consideration, is produced by direct current flowing through the larger coil inside the "Pot." This is called the field coil.

The amount of magnetism depends upon two or three factors not in the least being the quality of the iron of which the pot is made. Dynamo steel is best but difficult to obtain and machine. To obtain the same effect with ordinary cast iron, a larger amount has to be used, therefore necessitating a larger pot.

The density of the magnetism in the gap also depends upon the width of the gap. Now to suspend a coil in a gap of 5-64 of an inch is an operation a little too delicate for the amateur, so to get the same magnetic density in

Radio and Gramophone Power Amplifiers.

At the request of numerous clients we now offer an amplifier suitable for use in the home or small halls.

This amplifier works direct off the electric light, and does not employ any batteries.

It can be used as an amplifier for the GRAMOPHONE or RADIO.

It is an ideal amplifier for owners of console gramophones who desire to bring their machine up-to-date, at a small expense.

THOS. BALLINGER & CO., LTD.
58-62 VICTORIA STREET :: WELLINGTON.
WHERE THE QUALITY GOODS ARE SOLD.

larger gap means using a larger field coil and also a larger field current.

These were the two points referred to when it was suggested that the amateur should not attempt to copy, in size and field coil current economy,

value to work on. Two end plates will have to be cut from $\frac{1}{2}$ inch steel or iron and have to be shaped as shown so that the length of pipe will fit into a 3-16 inch rabbit in the end pieces. Into the middle of one end a 2 1-16 inch hole.

Volts	S.W.G. Gauge	Lbs. Layers	Turns	Resistance Ohms	Current
6	18 d.c.c.	4 $\frac{1}{2}$	15	1,000	2.9
12	20 d.c.c.	4 $\frac{1}{2}$	20	1,700	8.4
120	34 enam.	3 $\frac{1}{2}$	67	19,000	1500
230	38 enam.	3	92	37,000	6500
					2.1 amps.
					1.4 amps.
					67 m.a.
					30 m.a.

the speakers manufactured by well-known firms who spend thousands in stalling machinery to do operations almost impossible by the human hand.

Now that these points have been cleared up let us get to work on a mov-

The centre of the other end is recessed 1 $\frac{1}{2}$ inch diameter, into which the specially shaped core piece must be bolted from the outside. This core is 1 $\frac{1}{2}$ inch diameter and must be machined accurately and cleaned on both faces of the gap so that a uniform space of 5-32 inch is left.

All machinery must be done accurately so that when the whole is bolted together it is quite rigid. It is essential that the joints are perfect otherwise a magnetic loss will occur and the efficiency of the speaker impaired. While in the hands of the engineer get him to drill three $\frac{1}{8}$ inch holes equidistant in the front piece as shown and $\frac{1}{2}$ inch from the edge of the gap.

This section of the construction is passed over quickly as it will be assumed that the reader has entrusted this part to a professional turner who can obtain all information from the diagrams. The main point to impress is that the gap when finished will be an even 5-32 inch all round and $\frac{1}{2}$ inch deep.

A suitable cast "pot" is obtainable from the Precision Engineering Co., Wellington, for about £3 10.

The Field Magnet Wiring.

NOW comes the field winding and "Pentode" has thought it advisable to give a table of the wire to be used and number of turns, etc., for different supplies of D.C. The field winding can be used as a choke in the smoothing system when working from the AC and this is an economical way of producing the magnetic field. Others will want to use their A battery to energise the magnet and reference to the table will show the number of turns and gauge of wire, etc. Choose the D.C. voltage supply available and work according to that specification.

Say it is desired to work off the 6 volt A battery. Then 1000 turns of 18 D.C.C. SWC wound in 15 layers will be suitable and will consume 2 amperes while in use.

This may seem a considerable drain but, as has been mentioned before this is due to the relatively large gap being used and also to make up for losses due to incorrect core material.

A word to those who contemplate using the pot magnet as a choke in a smoothing system. Calculate the total current in milliamps that will be passing through the coil. Say it is 30 m.a., then by using the 230 volt winding the voltage drop across the choke will be 230 volts and this will have to be made up on the rectifying valve end.

It is expected that most constructors will use the 6 or 12 volt table. If the reader considers 2 amperes too much of a drain on his 6 volt battery, he can use the 12 volt winding which takes only $\frac{1}{2}$ amperes but the sensitivity of the speaker will be cut down accordingly.

Before the field coil can be wound a bobbin has to be made so that it will slip over the centre core into the pot itself. A piece of wood slightly in excess of 1 $\frac{1}{2}$ inch diameter can be used round which a strip of 20 gauge brass or copper sheet has been wound. Two end pieces 4 $\frac{1}{2}$ inch diameter in which a 2 inch diameter hole has been cut out of the centre are soldered on at each end forming a spool. These end pieces can be cut from No. 16 gauge metal. A section of the winding space of the finished spool must be 3 $\frac{1}{2}$ inch x 1 3-16 inch.

The wooden former round which the spool has been made can be kept in place until winding has been completed making use of it to mount the

whole on a winder. Drill two holes in one end of the spool to pass the beginning and end of the wires out. Now glue three or four layers of brown paper over the inside of the spool; ends as well so that everywhere the wire touches will be thoroughly insulated. Give the whole a liberal coating of shellac varnish.

It must be realised that whenever the field current is shut off quickly a great voltage potential is built up at either end and special care must be given to insulation. Six volts is thought to be nothing, but it is this built-up voltage when the circuit is broken that is liable to do damage.

Some form of winder will be needed and this will have to be left to the

RADIO DIRECTORY

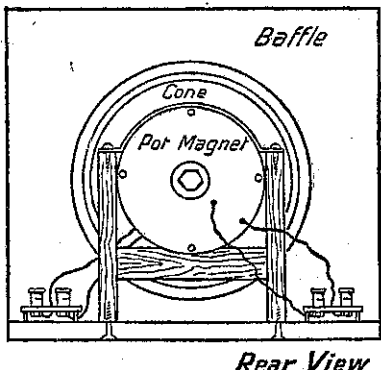
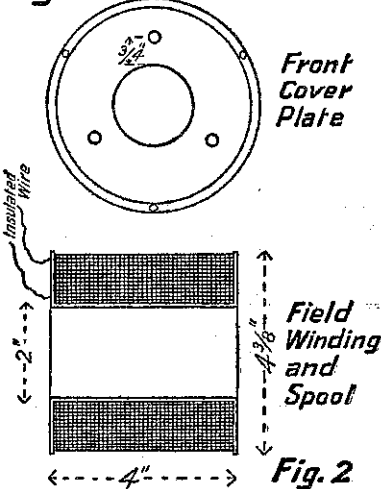
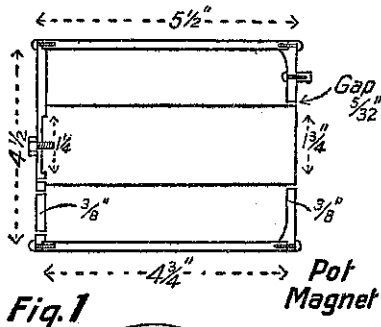
What to Buy and Where

CITIES

- ALTONA & HAMMARLUND-ROBERTS SETS.** Johns, Ltd. Chancery Street, Auckland.
- ATWATER-KENT RADIO** Frank Wiseman, Ltd. 170-172 Queen Street, Auckland.
- BREMER-TULLY RADIO** Superadio, Ltd. 147 Queen Street, Auckland.
- BURGESS RADIO BATTERIES,** All Radio Dealers.
- CROSLEY RADIO** Abel, Smeeton, Ltd. 27-29 Customs St. E., Auckland.
- CROSLEY SETS** Lewis Eady, Ltd. Queen Street, Auckland.
- FERRANTI RADIO COMPONENTS** A. D. Riley and Co., Ltd. Anzac Ave., Auckland, and all leading dealers.
- GREBE RADIO** Howie's, Dilworth Building, Custom st., Auckland.
- MULLARD VALVES** All Radio Dealers.
- PREST-O-LITE. Car and Radio Battery Service** L. J. Purdie & Co., Ltd. 97 Dixon Street, Wellington.
- RADIOLA RECEIVERS and Expert Radiola Service.** Farmers' Trading Co., Ltd. Hobson Street, Auckland.
- RADIOTRONS AND MARCONI VALVES** All Radio Dealers.
- T.C.C. CONDENSERS** A. D. Riley and Co., Ltd. Anzac Ave., Auckland, and all leading dealers.

COUNTRY TOWNS

- ANCHORADIO, BREMER-TULLY, RADIOLA, BROWN-ING-DRAKE, AND ATWATER-KENT RADIO** Radio House, Hamilton. G. S. Anchor, Manager.
- CROSLEY RADIO** J. C. Davidson, Main Street, Pahiatua.
- CROSLEY RADIO** F. H. Jellyman, Ltd., Devon Street, New Plymouth.
- CROSLEY RADIO** D. A. Morrison & Co., Victoria Avenue, Wanganui.
- PHILIPS VALVES AND APPARATUS** All Good Radio Dealers.
- SIEMENS BATTERIES, RADIOLA DEALER AND SERVICE** G. C. Carrad. 140 The Avenue, Wanganui.



ing coil speaker, considered by the writer to be the simplest as far as construction goes.

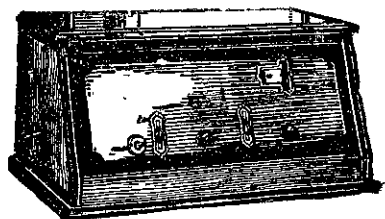
Obtaining the Pot Magnet.

THE first essential is to obtain the pot magnet. Starting with a length of iron water pipe with an internal diameter of at least 4 $\frac{1}{2}$ inches put into the lathe and clean off each end to a length of 4 $\frac{1}{2}$ inches. To anyone who has the necessary lathe, etc., the diagrams are of sufficient

discretion of the reader. The essentials are that it must be strong and the turns able to be counted as they are wound on. The winding just described by "Megohm" is very suitable. Using gauge wire no gearing is recommended, the wire being wound on in layers by hand. Slip a length of insulated slewing over the beginning and ends of the wire where they pass through the spool ends. If any layer becomes irregular wind one or two turns of brown paper before beginning the next. It is advisable to include a turn of brown paper between each layer, but if this is not done, don't be sparing with the shellac. When the correct number of turns have been wound on, finish off by winding insulating tape round the outside of the wire. Dismantle from the winder and knock out the wooden centre. Before sliding into the pot mark in the end of the pot where the two ends of the wire will core and drill two holes to pass the insulated field magnet wires for connections outside. One or two turns of stout brown paper over the iron core will let the spool slide on, a tight fit.

The Front Plate.

THE front plate needs a little attention before it can be finally screwed into place. Drill and tap an 1-8 inch hole down the centre of a short length of 3/4-inch diameter round



CROSLEY

6-60

Proves by comparison to be Radio's Greatest Value.

Crosley Radio Sets have always been good Sets—the 6-60 is easily the leader in its class. Reception on the 6-60 gives you an entirely new conception of Radio—reception which outshines that of any other similar Set.

Price: Set complete with full equipment (excluding masts)

£24/10/0

Terms: Deposit 70/- and 10/- per week.

Mail Coupon NOW for further details of this popular 6-Valve Set.

MESSRS. ABEL, SMEETON, LTD.,

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

Sirs:—Please send me particulars of the 6-Valve Crosley 6-60 Model, and other Special Values you are offering in Sets and Accessories.

Name
Address..... "R"

The Screen Grid Brownings-Drake

AS I am feeling in somewhat of an argumentative humour, writes "Diogenes" (Cromwell), and as I have something in the way of an argumentative subject before me, namely radio technicalities, may I presume to criticise the screen grid Browning Drake as recently published in the "Record." The fact that I do not know a tremendous lot about the subject may add to the interest of the argument, and I am sure I will have great pleasure in learning wherein I err.

As far as I can see, to apply the screen grid to the B/D circuit, your article proposes, and in fact, does, cut out the primary. It changes its function altogether, and pretty well makes it useless in order to gain a similar function elsewhere in the circuit. In other words, he makes the circuit no longer a Browning Drake, for what is a Browning Drake beyond a peculiarly wound primary?

My idea on the subject of making a screen grid B/D is not to alter the circuit at all, but to invent some method of winding B/D coils with an impedance of 200 thousand ohms, and use the valve in the ordinary way. I have heard that such a scheme has been published in a recent American magazine..

Answer to "Diogenes":

In correcting our diagram of the screen grid Browning Drake, "Diogenes" raises a good point, that is that the circuit is not really the Browning-Drake, but merely a screen grid circuit.

The difficulty, he has pointed out, is to get an impedance of 200,000 ohms to match that of the screen grid valve. If transformer coupling is to be used, it will be found that the aerial coil may consist of a primary and secondary, as in the ordinary Browning-Drake, but the transformer following the screen grid valve must be of a 1 to 1 ratio, and very tightly coupled. A good plan would be to wind on, say, a primary of 60 turns space wound. In the spaces, wind on the same number of turns to complete the secondary coil. This may be tuned in the usual manner.

If the coupling were not so tight as this, the primary also would need tuning.

To increase impedance of the radio frequency circuit, the coils should be space wound with silk-covered wire on celluloid formers, and all steps taken to reduce loss. This would raise the impedance, and get back more to the Browning-Drake scheme.

or square brass rod. Now cut off three pieces each being exactly 3-8-inch long. Three 1 1/4-inch bolts (1-8-inch Whitworth thread) are passed through the three holes in the end plate, from the inside, and fastened on the outside by the three tapped pieces of brass. About 1/4-inch of the threaded end of the bolt will be projecting outside. Tighten up each one firmly and screw the front plate firmly to the remainder of the pot. This completes the first half of the speaker and it can be put aside while the cone and moving coil are being constructed. A single article giving all the details would involve too much space, and the next issue will deal with the remainder, and give useful hints for its use.

Amplification from the Mains

Lecture to Wellington Amateurs

THE speaker at the last meeting of the Amateur Radio Society was Mr. Preston Billing, who took as his subject "Power Amplifiers." In introducing the subject, Mr. Billing explained that in the future power amplifiers were going to be exceedingly popular. They could be operated directly from the light socket, and were capable of handling tremendous volume without in the least impairing the quality. At the same time, they were simple to construct, and gave very long service.

Briefly touching on the theoretical side, such terms as "alternating current," "magnetic fields," and "magnetic flux" were explained, it being shown by diagrams the bearing of these in a magnetically-coupled transformer such as that used in the amplifier. When two coils were loosely coupled, that is, where coupled by their magnetic fields only, and a current was passed through one of them, induction took place in the adjoining coil, and there set up an electric current. In order to intensify the field between these two coils, a core (usually of soft iron or stalloy) was employed. The quality of the iron had a good deal to do with the quality of the electric current produced, and secondly upon the resultant tone. This explains why cheap transformers give a harsh and unsatisfactory tone.

It was explained that when the voltage was to be "stepped-up," the relation of this "step-up" was that of the number of turns on the primary compared to that on the secondary coil, that is, if 50 turns were put on to the primary and 150 on to the secondary, the output of the secondary would be three times the input of the primary, less the loss through the transformer.

Commenting on the general design of transformers, Mr. Billing said that there were mainly two types of cores, the rectangular and the shell. The latter was the one generally employed because of its greater efficiency. The types of iron used were sylicon and stalloy. The former was the more satisfactory but very much more expensive. To constructors who were mak-

ing their own transformers, a word of warning was voiced. Enamelled wire was that usually used, but if the enamel happened to be chipped off and one wire on a layer fell through to the next layer, a short circuit would occur, and very rapidly burn out the transformer. If the transformer was to be subjected to much movement, then the wire should receive a covering of cotton over the enamel. The current draw was small, but care had to be taken that the resistance would not cause the voltage to drop too greatly.

The principle of the gramophone pick-up was explained with diagrams, it being said that a good pick-up would give equal strength with a crystal set if telephones were used instead of an amplifier. Commenting on the amplifier, Mr. Billing suggested that a variable resistance should be placed across the primary of the first audio transformer. In effect, the gramophone pick-up was replacing the radio frequency and detector stages of the ordinary receiver, and should be considered as such.

Rectification was accomplished by a valve, either the filament or the non-filament type. Mr. Billing preferred the former, because they were capable of delivering a greater current at a higher voltage. The types were half-wave and full-wave. The full-wave was the more satisfactory because it was able to deliver double the current of the single-wave type.

In concluding, Mr. Billing mentioned two points on which the constructor should be careful:—

1. The transformer was delivering very high voltage, sometimes up to 1000 volts, and if great care were not exercised, the constructor might get a severe shock.

2. The chokes should be capable of handling 100 milliamperes and have a capacity of 30 millihenries.

Mr. Billing concluded by remarking that not 5 per cent. of the sets in use could reproduce faithfully all the frequencies that were sent out by the transmitting stations, and in view of this, much of the talk about distortion and unfaithful reproduction emanated as a result of the incapacity of sets.

Solving the Lead-in Question

PROBABLY most radio enthusiasts have at one time or another been confronted with the difficulty of getting the aerial down-lead into a room without drilling a hole in the woodwork of the window-frame, or similarly damaging the household property. Such a problem very often assumes serious proportions, especially when the household or property-owning "powers that be" resolutely refuse the enthusiastic amateur permission to bore a hole through the window frames.

However, the problem can be solved in the following way: Procure a brass or copper strip about one foot long and half an inch wide. A strip of metal about 28 guage is quite suitable. Bore a hole at either end and fasten

on two small terminals. Next obtain a foot of rubber tubing of a diameter rather less than the width of the metal strip. Remove the screws from each end of the strip, and slip the tubing over, allowing about 1in. to project at either end so as to expose the holes for the terminals.

It is now a comparatively simple matter to fix this type of lead-in through the top of the window. The metal strip will be pressed to the shape of the window frame when the latter is closed. With this window lead-in in position, the aerial down-lead is attached to the outer terminal and a lead from the inner terminal may be run to the set.

THE usual method of connecting the windings of a plug-in coil are, outer end of the winding to the socket, inner end of the winding to the plug of the coil.

On Short-Wave

(Continued from page 32.)

sia was at wonderful strength, but mostly talk, very little music; R8 to 9.

Monday, February 18.

7.15 a.m.: 3LO Melbourne, 31.6 metres, was heard, but much weaker than usual, about R6 to 7. KDKA was heard in the afternoon, but was much weaker than Sunday. He closed down at 3.30 p.m. New Zealand time. 3.30: A station was heard on 23 metres, but was too weak to get call, probably KGO again. 6.30 p.m.: DOR Germany talking, wonderful strength, R9. 7 to 15 p.m.: W2XG on word test, operating on two wavelengths, 26 and 42 metres; R8. 8.15 p.m.: PHI Holland, transmitting music same as usual, very few announcements; strength R7 to 8; strength increasing as time went on. Throughout transmission he was making carrier wave adjustments.

Tuesday, February 19.

6.30 a.m.: A carrier wave was heard on 31 metres, but listened for ten minutes, but nothing was heard. 7 a.m.: 5SW, after Big Ben struck the hour, some announcements were made, but I failed to get what was said; strength R6 to 7.

I did not listen-in during the evening.

Wednesday, February 20.

1.45 p.m. the carrier wave of KDKA was just audible. I did not listen again till nearly 4 p.m., when I heard him giving the weather report. He closed down at 4.10 p.m.; strength R7.

4.15 p.m.: W2XAF was heard about R7. An announcement was made something about being linked up with Montreal. Afterwards music could be heard, but there was a deal of noise, but after coming back to WGY studio he was quite distinct. At 5 p.m. he stated that they would now carry out 30 minutes' television test, and mentioned these tests were carried out Tuesdays, Fridays and Sundays for 30 minutes. He closed down at 12.37 E.S.T.

4.20 p.m.: A station was heard just below W2XAF, but strength was not too good, and also it was fading. He turned out to be 4XD, Nashville, Tennessee. On account of strength and fading he was not heard very well. By the latest list of SW stations in "Radio News" he is listed with a wavelength above 2XAF, so probably yesterday's station was a test.

7 p.m.: DHC, Germany, was heard to open up and call VK2ME. The best English spoken from this station was this night by a woman, she being, as stated, an operator from one of the exchanges in Berlin. She mentioned in her conversation with 2ME that the exchange where she was employed was worked solely by women. Strength from both stations was good; R9. Before VK2ME closed down he stated he would be on the air again at 10.30 p.m.

to carry out another test: he did not say who with.

11 p.m.: Station on 83 metres, who turned out to be 4BC, Dunedin; strength was R8 to 9; modulation good at times, but fading a little. He asked for reports and to send them to address 506 George Street, Dunedin.

11.15 p.m.: Just before closing down ANE was heard playing records; strength R7 to 8.

Thursday, February 1.

7.15 p.m.: DHC, Nauen, Germany, was carrying out another duplex telephony test with VK2ME, Sydney. Strength from DHC was wonderful, just like listening to our local station; R9. 2ME was quite good—R7 to 8—but lately 2ME has been making tests with different power and at times their signal strength varies. 8.30 p.m.: RFM, Russia, was at R7 to 8. 9 p.m.: JHBB, Japan, was heard on 30 metres at R7.

Friday, February 22.

I was up a little early this morning to see how PCJ, Holland, was coming in and at 6.15 a.m. he was about R5 to 6, but later on he increased to R7 to 8 and was heard calling India.

Notes from Southland

W.G.L. (Southland) sends his log for the week, the additions to Mr. Morrison's being:

Saturday, 16th: I tuned in to PCJ, Holland, who at 7.30 a.m. was broadcasting gramophone numbers; strength was then R7, and rather unsteady.

Sunday, 17th: WGY was again on the air. At 2 p.m. I tuned in to him and only the carrier was audible. At 3 p.m. he was R2, and at 4 p.m. was R7. I listened till 4.30 a.m. Somebody was on the air at about 32 metres; it was evidently a foreign station, as a man was speaking broken English. All I could understand him to say at first was "Hello," "Hello," "Hello," and counted up to 20 twice, and repeated "Hello" again, then counted 10. I closed down for a while, after which I tuned him in again; he was not understandable this time, but slightly louder. He would speak a few words, and then there would follow a long space. He was just above WGY or 2XAF's wavelength, his strength was quite good, about R2, but neither readable nor very clear. RF Mat., 8.30 p.m., was R2.

Tuesday, February 18th: RFM was R4, the best I have heard for over a week on account of rough weather.

Wednesday, 19th: At 11.30 p.m., 2ME Sydney was testing with PLE, Java, strength R7.

Thursday, 20th: At 8.15 p.m. 2ME, Sydney, was testing with DGW, South America. I heard 2ME say the American was testing on 26 point something metres. I couldn't hear the rest because of fading. I tried to get the American but could not. Strength for Sydney was R8, with fading. RFM was R3 and very poor.

THE D.X. CLUB**Views and News.****KFSD (San Diego).**

I THINK the station "San Diego calling" which "Grid Leak" heard is KFSD. I heard this station on February 2, just before they closed down at 6 minutes past 12, P.S.T. The announcer said that the station broadcast on a frequency of 600 kilos., which is approximately 500 metres.

I have heard a station on about 260 metres several times. The call sounds like KCJJ, California, but I can't find this on any list of stations which I have seen. They were broadcasting a mixed programme up till 8 o'clock, on Sunday, February 17, and after that it was somebody's dance hour.

From January 1 to February 13 I have heard the following stations:—KMOX, WENR, KWKH, KNX, KFOX, KJR, KHJ, KFRC, WLW, KEJK, KEX, KFKB, WMAQ, KGO, CNRV, KFWB, KTM, and WHER. KTM, on 780 kilos., will be the same as KZM, which Mr. Blucher reported, on 336 metres. Several weeks ago "Neutrodyne" said that WHER was WART, but I should be receiving a card soon, when I will be able to give more particulars.

Is there a place Talahassee in U.S.A.? I heard a station on 220-230 metres last week, and that was all I was able to hear.—"KAUSPANKA" (Hastings).

[No trace can be found of a place "Talahassee," with a broadcast station. Was it "Tennessee?"]

Notes Concerning the Americans.

I AM operating a six-valve factory-made set, under somewhat difficult conditions, with a poor aerial, some ten miles from Te Awamutu, in hilly country, but my results have been remarkably good. After some 15 years' service, including a considerable period as instructor to the British Army, I can say that I have never known such results. My log for January 31-February 3 is as follows: KGO, Oakland, California (254)—Splendid volume. (Comes in every evening).

KEX Portland, Oregon (254)—As loud at KGO, but fades more.

KWKH Shreveport, Louisiana (353)—More volume still.

KMRV Vancouver, B.C. (3 points lower than 3YA)—Did not know there was a station there, and was surprised when he said "Station KMRV Vancouver, B.C., Stand by for the time signal: Standard Pacific time being now 1½ minutes to 12 o'clock midnight."

KFON, KFOX Long Beach, California (approximately 235 metres)—Fair, fades badly.

KMOX St. Louis, Montana (275)—A great station. The announcer is a trick, very cheery. Had received a telegram from Winnipeg, re the programme. Hoped the naval boys in the Gulf were listening. Then went over to dance hall, where clapping, talking, etc., were quite audible.

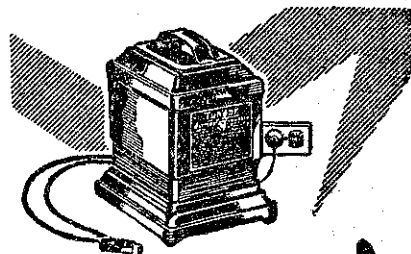
KSL Salt Lake City, Utah—A splendid station.

JOGK (comes in on KGO's wavelength), Japan—Good steady volume. An unknown American on practically the same length interferes.

KHJ (333); KNX (286).

All these stations heard on Thursday, January 31, Saturday, February 2, and Sunday, February 3, and their call signs checked by another. Volume from all was sufficient to be comfortably heard in this average-sized room, although yet only early in February.

Monday, February 4, 1929, 7.45 p.m.—Just logged WENR, Chicago (345). Baritone singing "When You Come to the End of the Day." Four other stations heard, not yet identified.—H.P.G. (Te Awamutu.)

**The Tungar****BATTERY CHARGER**

Keeps "A" and "B" storage batteries at full strength always.

**PRICES:**

2 Amp. £5/10/-
5 Amp. £8/10/-

Will also charge your car batteries.

N.Z. DISTRIBUTORS:

THE NATIONAL
Electrical and Engineering
Co. Ltd.

Auckland, Wellington, Christchurch, Dunedin, Hamilton, Wanganui, Timaru, and from

Radio and Electrical Dealers

Mullard
THE MASTER VALVE

The only Valve with the wonderful P.M. Filament. Gives longer life — more power — greater volume.

Short-wave Jottings

MR. A. P. MORRISON (Brooklyn) writes:—In recent reports I have stated that the new call-sign of 2ME was PK2ME, which at different times I had heard operating in Australia, but Mr. Sellens told me it was VK2ME, and since listening to them I have taken particular notice of the call, and found my mistake. VK2ME it is.

Most of the short-wave stations this last week have come in with good strength, with the exception of PCJ, Holland, last Saturday, 16th. He could not be heard at all by me. The following items of interest to SW listeners are from the last edition of "Radio News," "Old Faithful," of the short waves: Short-wave broadcasting, though a novelty to most of the general public as yet, is nevertheless practically as old as broadcasting on the present "regular" band which centres somewhere below 360 metres. As with the latter, station KDKA, whose transmitters at East Pittsburgh, Pa., was the pioneer and still a leader.

In the spring of 1922, only a few months after KDKA had commenced systematic broadcasting to the public on a longer wave, H. P. Davis, vice-president of the Westinghouse Electric Manufacturing Co., the owner of the station, conceived the idea of using radio relays to link together stations for simultaneous broadcasts. Dr. Frank Conrad, the technical authority to whom has been entrusted the direction of the necessary engineering development, was convinced at once that the short-waves (then dismissed contemptuously to the realm of amusement, rather than experiment) would offer a solution.

An experimental short-wave station, KDPM, was put in operation at Cleveland to work with KDKA. And in the following year at Hastings, Neb., KFKX undertook a regular schedule of rebroadcasting KDKA's nightly programme as transmitted and received on short waves.

It was not long before the success obtained warranted an attempt to relay a programme for international broadcasting; this was accomplished on December 31, 1923, when a New Year's Eve programme was transmitted by KDKA and successfully rebroadcast at Manchester, England. On December 12, 1924, the regular short-wave programmes were picked up and rebroadcast at Johannesburg, South Africa, at a distance of nearly 9000 miles, and in the following month KDKA was received and rebroadcast in Melbourne, Australia, thus spanning the diameter of the world. Each of the feats set a record in international radio telephone work.

Into the White Wastes.

SINCE 1923 the short-wave transmitter of KDKA has been engaged in a work which exceeds in human interest, undoubtedly, its many scientific and engineering achievements—that of keeping in touch with civilisation its pioneers in the frozen Arctic. It began with the distribution by the Canadian Westinghouse Co. of receivers to the Royal Canadian Mounted Police; now traders, explorers, missionaries, and others rely upon the messages thus sent to them for news and entertainment, especially in the midday night of the northern winter.

In fact, many lives have been saved through the directions sent out from this station for the organisation of relief expeditions at posts capable of aiding isolated parties whose plight would not otherwise have been known in time. At present KDKA is transmitting also "Far South" programmes for the benefit of Commander Byrd's expedition; these transmissions represent a most carefully-prepared series of distance programmes. To reinforce the service of KDKA, the Westinghouse stations WBZ, Springfield, Mass., and KYW, Chicago, are also equipped with short-wave equipment, which is kept ready for use.

MY log for the week is as follows:—

Thursday, February 14.

7.30 p.m.: DHC, Germany, was heard calling Sydney; a little later VK2ME was heard to reply; strength from both stations was good. DHC was a little stronger than Sydney; he asked 2ME to wait a moment because they had developed an interference at their receiving station, and that they wished to make adjustments to their aerial. It proved afterwards that this interference was too great, so the test was not carried any further.

9.30 p.m.: A Dutch station carried out a duplex telephony test with ANE, Java. The Dutch station was operating on 16 metres, modulation and strength were good from both stations; strength varied from R6 to 8. As regards call of station in Holland, I heard it a good many times sounding like POK; if that is the correct call, he is a new one to me. 10.30: RFM, Russia was heard at R8. Some good music.

Amateurs heard, 3AF testing with 2AX, Palmerston North.

Friday, February 15.

6.30 a.m. I looked for TLO, South Africa, but failed to find him. I have not heard him for a good many mornings now. 7 a.m. Big Ben was heard to strike at 5SW. Afterwards a lecture was delivered on religion; strength

has improved somewhat this last few mornings, and on this particular morning he was R7 to 8.

7 p.m.: D.H.C. Nauen, Germany, were conducting another test with VK2ME, Sydney; both stations at R8 to 9. This test concluded at 8.5 p.m., New Zealand time.

8.10, PHI, Holland, was heard with music, strength varying from R6 to 8. Fading was in evidence. One fault with this station, is that he does not give his station call frequently enough. Sometimes he plays as many as six items of music before he announces. 8.45: 20A, Lower Hutt, testing on 70 to 80 metres, band strength, R8, but modulation could be touched up a little, but for all that he is quite good. 10 p.m.: Japanese station on 30 metres strength R.6 to 7; call, I did not get.

Saturday, February 16.

Did not listen-in in the morning.

3.15 p.m.: A station was heard on 22 to 23 metres. When first hearing him, I thought it was W2XAD. After listening for some time, I heard California mentioned. I thought this must be Mr. Sellens's friend of Saturday, February 2, K.G.O. The next announcement I heard "Station KGO, California." The next item was by an Italian operatic singer, I listened to him for one hour. Strength was not great, so there was much said that I did not catch. At 3.15 p.m. he was R6 to 7, but to me he decreased in strength, and could not be heard after 4.20 p.m. As Mr. Sellens says, nothing was mentioned re these s.w. stations when he heard them, and such was the case with me.

This station, KGO, California, is one of the pioneer stations of America on its broadcast band. I remember, years ago, this station was one of the wonder stations. At that time I was in the Wairarapa, and I could bring him in as clear as a bell on one valve, transmitting dance music from St. Francis Hotel, California, but now he is not heard so much in New Zealand. The reason, I suppose, is too many transmitters around him. At any rate we hope his s.w. transmitter will be heard in New Zealand at good strength later on. His s.w. plant is now rated at 10,000 watts.

5 p.m.: W2XG, Rocky Point, was heard on word test. R8, on 33 metres.

5.15 p.m.: Station on 52 metres, with music, probably WLW, Cincinnati, strength R5 to 6.

9.30 p.m.: DOR, Germany, was heard on 41 metres, with his usual long talk. R7 to 8.

10.30 p.m.: JOAK, Japan, was heard on 37 metres, with some of his Japanese operatic music. R7.

Sunday, February 17.

3.30 p.m.: W2XAF was heard, but at that time strength was only R5 to 6, so did not bother with him.

3.35 p.m.: KDKA was tuned in with surprising volume for that time of the afternoon, and was transmitting dance music from William Penn Hotel, Pittsburgh. This concluded at 4 p.m., New Zealand time. Afterwards KDKA called the Byrd expedition, asking for

a report on reception of ex-Governor Hughes's speech (which was probably broadcast before I tuned KDKA in), but numerous difficulties were experienced by KDKA in hearing either of the s.w. transmitters of the expedition, namely WFBT and WFAT, operating on 33 metres. KDKA first tried to receive them at the control room at that station, but were not successful, so asked WFBT to give another long call in a series of dashes, and then KDKA. He would listen for them at their receiving station, situated five miles from Pittsburgh. They failed to receive a satisfactory message, so KDKA stated they had 40 to 50 messages for the expedition and that each message was numbered, first message number one, and so on, and stated if any message was not received on account of fading by them, they could call up their receiving station and the message would be given again. Five messages were given, and then KDKA called for WFBT (City of New York), to call the receiving station again, but was not successful again, so carried on with messages.

Before KDKA finished with the Byrd Expedition he called a Mr. Ross Skinner on board the Franconia (this gentleman is on a long voyage, I believe), and read a message to him, and then Mr. Skinner's sister, Nora, spoke to him for a little while. KDKA then carried on with the expedition messages, and before closing down at 5.25 p.m., New Zealand time, he asked WFBT to call the receiving station on 22 metres, and give them a report. KDKA was 100 per cent. readable with increasing signal strength.

7 p.m.: The 41-metre station DOR, Germany, was heard. This station gives its call the plainest of any foreign station I have heard, and anyone tuning him in while he is on these talks and pausing as he does would probably mistake him for the other German station, RSR. His strength is always good R8 to 9.

9.30 p.m.: Another Jap. was heard on 35 metres, but his transmission was very noisy, R6 to 7. 9.45: RFM Russia (Continued on page 31.)

Exide BATTERIES

MEAN DEPENDABILITY.

Installed at 2YA Wellington.

All sizes. From 9/- each.

EXIDE SERVICE STATION

79 Kent Terrace, WELLINGTON.

COMRIE, SMITH & WARDLE LTD.

'Phone 23-323. 77 KENT TERRACE, WELLINGTON.

MOTOR REPAIR SPECIALISTS.

All Makes of Radio Batteries, and Motor Accessories Stocked.

Whippet Service Station.

Authorized Chevrolet Station.

Printed and published for the New Zealand Radio Publishing Company at the registered office, Wakefield Street, Wellington, of the Wellington Publishing Company, by Archibald Sando, of 47 Freyberg Street, Lyall Bay, FRIDAY, MARCH 1, 1929.