



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

Vol. II., No. 28.

WELLINGTON, FRIDAY, JANUARY 25, 1929.

# Report on Copyright Convention



As all listeners are aware, the subject of Copyright is a very important one in connection with broadcasting, and last Session special temporary legislation was passed by Parliament to safeguard broadcasting from an Injunction threatened by Australasian Performing Rights Association, Limited. Parliament's object in passing the legislation it did last year, to be effective for twelve months, was to provide time for the report from Mr. S. G. Raymond, K.C., the Special Representative of New Zealand at the International Copyright Conference, held in Rome last year, to arrive and be considered. Mr. Raymond is a leading legal authority, and ably represented New Zealand at the Conference. His report has now been prepared and made available to the House of Representatives. It will be the foundation of the legislation that will be considered and adopted by Parliament in the next Session. In order, it is hoped, to put the copyright position on a basis of permanent satisfaction.

THE report, as presented, although concise in its treatment of the subject, is necessarily lengthy on account of the extent and ramifications of the matter dealt with. The first section deals with the Conference itself, and briefly discusses the delegations and the proceedings, which lasted in Rome from Monday, May 7, 1928, until June 2, when a Convention embodying the decisions reached was signed by representatives of nearly all the States of the Copyright Union. This convention is subject to ratification by the Governments of the various countries of the Union. The Rome Convention, if accepted by New Zealand, must be ratified, and ratifications exchanged at Rome not later than July 1, 1931. The next sitting of the Conference is fixed for Brussels in 1935. All the

## Recommendations of Mr. S. S. Raymond, K.C.

British delegates signed the Convention except the Irish Free State.

THE second portion of the report deals with the Dominions' entry into the Union, and discusses the advantages and results of such entry. Their entry is recorded as having introduced an entirely new element—an element putting forward views considered as little short of revolutionary by some of the older members of the Union. From the population point of view, their weight was, of course, insignificant compared with the other densely-populated countries; but the importance of their entry lay in the fact that at the Rome Conference the interests of the public—that great body of purchasers and consumers of copyright wares—were vigorously voiced by the Dominions for the first time in the history of Copyright Conferences.

### Evolution of the Conference.

THE third section of the report dealt with Movement in International Copyright from Diversity towards Uniformity Conditions. This section outlines the history of previous international conferences and the development at various stages to establish uniformity of practice in all countries subscribing to the Convention. The initial tendency of the Convention was to extend protection to, and advancement of authors' rights, and so long as authors and publishers were dominant at the conferences they were successful in having their views accepted by the National Legislatures.

That movement, however, sustained two main checks to its development. Each time the check was occasioned by the entry to the Conference of representatives of in-

terests differing from those of the copyright-owners. "The first interest to make itself felt was the industrial one. Between 1886 and 1908 the gramophone industry had sprung up and was well established, employing large numbers of workmen and much capital. It asserted itself so effectively at the Berlin Conference of 1908 that any person may now, subject to certain conditions, without the consent of the owner, make gramophone records of a copyright musical work upon payment of a royalty. This is the compulsory license system, bitterly opposed at the time, and still subject to bitter but hopeless attacks. It is secured by Article 13 of the Berlin Convention, and reappears in Article 13 of the Rome Convention, and is there for good and all, for its revocation can only be obtained by the unanimous vote of the nations of the Union.

"The second check to the progress of the movement towards uniformity occurred at the Rome Conference. This time the debate was on radio-diffusion, and it was at the hands of the Dominions of Australia and New Zealand, representing the public interests, that the check was administered. These Dominions were unfettered by the over-emphasised traditional respect for copyright-holders' rights, and unhampered by capitalistic interests, so powerful in the counsels of the Old World countries. They were combating a world-wide association, having great capital revenues, and they succeeded by asserting the principle of home rule in radiophonic control, and thus stemmed the tide of copyright uniformity. The problem as it appeared to the New Zealand delegate was how to reconcile the just claims of the owners of copyright with the public interest."

### Effect on Broadcasting.

THE fourth section of the report deals with the results of the Convention and the technical means to be adopted to bring New Zealand legislation within the Convention.

(Continued on Page 2.)

(Continued from Page 1.)

Coming to the points of particular interest of listeners, the report deals with the broadcasting part of public performances. Under the heading of "Public Performing Rights," it says:—"Copyright," according to the English and New Zealand statutes, includes "the sole right to perform the work or any substantial part thereof in public." The public performing right so secured to the copyright-holder by these statutes is far greater than what the Convention of Rome requires. Public performances may be given in three ways: By broadcast; by mechanical instruments; directly—i.e., where the performer is in the presence of his audience. Let us consider each of these methods separately.

### 1. Broadcasting.

"Under existing New Zealand legislation the copyright-holder has sole right of communicating his work to the broadcaster. He may ask any price or terms he pleases, give preferences, or prohibit without reason assigned, the broadcasting of his work. He has absolute control. An attempt to establish by the convention copyright-holders' rights in radio diffusion substantially the same as those now existing in New Zealand provided the hottest controversy at the Rome Conference. It was championed by France and actively supported by nearly all the countries of the Union; it was opposed by New Zealand, Australia, and Norway.

"On the one hand, it was claimed that the author's rights over the products of his brain should be complete and that his right of property was sacred. On the other hand, it was urged that the broadcast was a public utility subject to public control upon just terms; that broadcasting was yet in its infancy, and the conferment of absolute rights which might conceivably be abused would be a mistake, and that the proper course to adopt was to reserve powers to the Legislatures of the various countries to deal with these rights.

"Ultimately an article in the following terms was agreed upon:—

#### "Article 11 bis.

"(1) Authors of literary and artistic works shall enjoy the exclusive right to authorise the communication of their works to the public by radio communication.

"(2) The national legislation of the countries of the Union may regulate the conditions under which the right mentioned in the preceding paragraph shall be exercised, but the effect of those conditions will be strictly limited to the countries which have put them in force. Such conditions shall not in any case prejudice the moral rights (droit moral) of the author, nor the right which belongs to the author to obtain an equitable remuneration, which shall be fixed, failing agreement, by the competent authority."

"This article your delegate considers satisfactory. It reserves power to each country's Legislature to control within its own national area the exercise of the right. That was the provision contended for by New Zealand throughout the Conference. Power is thus given to adopt a compulsory-license system, or any other system; and in this connection comparison with Article 13 and consequent English legislation is instructive. The principle of compensation was never contested by New Zealand, as that country does not contemplate turning highwayman, but wishes only to secure itself against monopolies.

### 2. Mechanical Music—Public Performances.

"Public performance of this class is generally accomplished by gramophone amplified. By Article 13 the exclusive right is conferred upon authors of musical works to authorise the public performance of the said works by means of these instruments, but reservations or conditions relating to the application of this article may be determined by the domestic legislation of

each country in so far as it is concerned.

"In relation to Article 13, it is to be noted:—

- (a) The only works protected by this article are "musical" ones. All others, such as lectures, readings, and speeches, delivered through the gramophone, are unprotected by the convention.
- (b) The reservation has been used in Britain and other countries for purposes of acquiring the right to make records by compulsory license.
- (c) It is competent to the Legislature to authorise compulsory license or other system of acquiring public performance rights of gramophone records.

### 3. Direct Performance.

"Article 11 of the Rome Convention repeats Article 11 of the Berlin Convention, 1908, and affords copyright protection for public performances of dramatic, dramatico-musical, and musical works. It is to be noted—

- (a) Other public performances, such as lectures, readings, and speeches, are unprotected by the convention.
- (b) There is no express reservation to each country to deal with direct public performance rights under this article as there is under the Broadcasting 11 bis and the Mechanical Music Article 13.

"It will no doubt, therefore, be claimed by the Performing Rights Association that the New Zealand Legislature is not entitled to control in any way the exclusive right of the author conferred by this article.

"The following propositions can, however, your delegate considers, be maintained with regard to the group of public performances now being considered—namely, direct performances:

- (1) That if the exclusive right conferred by Article 11 is or may be so exercised as to become an abuse, then the New Zealand Legislature can control it.
- (2) That what constitutes an abuse is a question exclusively for the Legislature, subject to its acting honestly and reasonably.
- (3) That the New Zealand Legislature may provide for compulsory license or other scheme upon payment of a royalty, percentage on door or other receipts, or other compensation to the copyright-holder, to be assessed in such manner as the Legislature thinks fit.

The propositions are maintainable because they are accepted and have been acted upon by various countries of the Union.

#### Various Viewpoints.

"Some countries hold that power is inherent in the State to suppress or otherwise deal with abuses, as, for instance those arising out of monopolistic or trade conditions. In some countries legislation is not necessary—the power is what we call a common-law power; in others, legislation is requisite. All these countries, however, hold that an international Convention cannot interfere with this power, whether exercised through the Judiciary or Legislature.

"On May 11, 1928, in the early days of the Conference, a proposal standing in the name of Australia and New Zealand was moved by the New Zealand delegate as follows: 'While recognising the rights given by Articles 11 and 11 bis, the countries of the Union do not relinquish the power to take measures against any abuse which may arise in the exercise of the said rights.'

"The leader of the Conference (M. Giannini, of the Italian Delegation) opposed the proposal on the ground that, as every country's Legislature and Judicature have inherent power to deal with abuses, the proposal was not necessary or proper for inclusion in a convention. The proposal was rejected.

"Adopting M. Giannini's view, it follows that determination of whether an abuse arises or may arise must be left to the Legislature or Judicature of each country to determine, and necessarily a very wide latitude in determining must be given to each country."

"Norway's Memoire.—Proposition (3) is somewhat more difficult. The arguments for it are set forth in a memoire placed by the Norwegian delegation before the Conference. The arguments are developed with much skill and knowledge in the memoire, and, briefly, are that when the substance of Article 11 was adopted at the first International Conference—that of Berne, in 1886 (see Article 9, Berne Convention, 1886)—the royalty system, or something similar, was operating in various countries; that the Berne Conference was occupied with establishing the right of a foreign author to equal copyright protection in other countries of the Union to that of natives, and not with establishing a uniform code throughout the Union; and that accordingly the royalty or other system was not within the purview of, or dealt with by, the Berne Conference or by the subsequent conferences at Paris in 1896 and Berlin in 1908.

"The Norwegian arguments were not contested at the Rome Conference.

"Norway and Denmark, and it may be other countries, act upon this view without objection. It therefore seems to the New Zealand delegate that it may safely be adopted by New Zealand.

"Before parting with this branch of the subject, it is to be observed that Dr. Raestadt, the Norwegian delegate, writer of repute on international law, concurred with your delegate in the view that the arguments advanced in the Norwegian memoire had no application to broadcasting. In 1886 control by each country's Legislature was applied; in 1928 the same convention existed, and control was excluded unless expressly reserved. Norway therefore acted with Australia and New Zealand in insisting upon the reservation ultimately incorporated in Article 11 bis—the broadcasting article.

#### Suggestions for Legislation.

SUGGESTIONS for legislation are dealt with as follows:—

"Copyright legislation hitherto has mainly concerned itself with protecting against piracy of literary and artistic works as expressed in print, musical sheets, engravings, photographs, etc., and public performances of musical, dramatic, and similar class of works by (Concluded on page 31.)

## Save Money on Household Removals by Rail

Avoid the risk of breakages over long rough roads.

When moving furniture it pays to consign by rail.

A recent reduction in rate of over 6/- in the £ ensures economy. Roomy, smooth running furniture vans ensure safe transit.

Quotations and information gladly supplied by any Stationmaster, Business Agent, or District Manager.

# Vigorous Campaign to Exterminate Pirates

## Department Specially Active



DAILY paper some time ago asked the question "Is it profitable to hunt radio pirates?" and, quoting the New South Wales figures, arrived at the conclusion that the question was very doubtful. This was rather hasty, as it rather tended to cause the unlicensed listener to rest in his unlicensed condition, taking for granted that his authority was not playing a false. Fortunately for that paper no reference was made to New Zealand. Conditions here are different.

There is only one answer to the question asked, judging from the achievements of the New Zealand Post and Telegraph Department.

**It is decidedly unprofitable for anyone who shirks his moral and legal obligations and does not secure his license.**

Not that it is considered that pirating in this country is rife, but that a certain amount of this despicable business is carried on there is no doubt.

### Motives for Pirating.

TO analyse the motives for piracy is a very difficult problem—several suggest themselves—but the pirate will probably find a better one in his own case. One excuse sometimes put forward by these pests is that they don't know whether they are going to keep a set or not, but in some cases they seem a very long time in deciding, so long that the radio inspector has to visit them to know their intentions. There is no justification for this veiled piracy, and he who would try a set out for some considerable time and present the excuse when asked for his license that he was not satisfied with broadcasting is more than a petty thief.

### Interesting Excuses.

A CASE of this sort happened recently and may possibly be remembered by the party concerned if he should chance to see the incident in print. A letter reached the Department stating that in a certain street there was a party who was operating his set without a license. A visit from the radio inspector only resulted in the reply, "We are trying out several crystal sets, but have found that none of them are any good." However, he continued to try out crystal sets and has now had to pay the Government the cost of an amplifier as well as the cost of a license to "experiment."

Another excuse may be poverty, but very few indeed of those brought before the Court make this excuse, for they are met with the calm rejoinder, "Then don't try to live beyond your means," and somehow or other the thirty shillings and the fine, usually in the region of £2, have to be found even though they cannot be afforded.

But the real cost of Court proceedings is far in excess of the fine and the costs—it involves the forfeiture of self-respect. Frankly, it is not worth "convicted and fined" for shirking to bear one's share in the expenses which go to provide enjoyment and instruction. Then it is not fair to the other fellow who pays his license; he knows that he is paying for your entertainment, and

sooner or later he will tire of this injustice and do one of two things: either he will send a note, signed or unsigned, to the district radio inspector, or will fail to renew his own license—only to be caught, for no pirate can exist for very long—the P. and T. see to that.

### Activities of the Department.

RADIO pirates, intending radio pirates, and those who are keen to see the extermination of the pest, may be interested to know the activities of the Department in guarding licensed listeners. On the registration of the license the name of the licensee is filed in the district in which the set is to be operated. The filing is systematically completed by streets in the case of the towns, and, in the case of the country, by areas.

For the purposes of inspection, the country is broken up into districts with a varying number of radio inspectors on full or part-time, according to the size of the district to be covered. Each of these districts receives the license cards as they come to hand, and they are systematically filed.

Filing does not consist of placing the cards in a box, tying them up in red tape, and leaving them for twelve months. There is no procedure like that. The regular inspectors, whose duties take them through the areas to be covered almost daily, are constantly referring to these cards, and can almost tell from memory every new aerial that is erected. Quite frequently certain blocks are inspected, and then the cards are taken out and aired, sometimes to the disgust of the radio pirate who was resting on the assumed lethargy of the Department.

These inspectors do not work by hours and catches, have been reported by inspectors who were on their way to the theatre. Because your licensed friend says that there has not been a radio inspector to visit him during the whole course of his license period, or because an official-looking man, with an ominous loop antennae has not frequently passed the door, it does not signify that these men sit in their offices and contemplate the latest figures.

Every district is regularly covered by inspectors daily, though these may be only part-time. In the cities, officials working on commission, pass your door, twice daily, Mr. Radio Pirate, and sooner or later there will be something to pay.

### Systematic Inspection.

IN addition to these every-day happenings, each district is annually "cleaned up" by a large party, who scour out every nook and cranny where a pirate may be resting in his false security.

But the department has a force that is even stronger than all this—the feelings of the licensee who is not getting a fair deal, and who signs him-

self "Fair Play." Sometimes these complaints are the outcome of misguided information, perhaps a child at school who likes to think he is a "pirate," and who tells his friends, in spite of the fact that his own father owns a license, "Don't tell, but we are pirates." Very many cases of this type have been reported, and have proved foundationless. Nevertheless, many a £2 has been gained through this potent medium.

There are cases that will escape efforts at detection. These fall under our first definition, and from a social point of view are a menace, but even these are insecure, as the following case will exemplify.

### Boasted of Security.

ONLY last week there was a conviction and fine of a pirate who boasted of his security, and, considering his equipment, no pirate could have felt more secure. For the aerial, a mattress was pressed into service, while a wire that would have escaped the most critical observation, ran down the wall to earth. Yet he was discovered, but how—that is the secret of the inspector, for he intends to catch others by the same means.

Yet another pirate known to the department is waiting to pay the extra large license fee.

An inspector received notice that the occupants of a certain house were using an unlicensed set, but on paying them a visit was calmly informed that there had not been a set used on the premises, and there was no intention of using one. The neighbour had a licensed set, so the radio man paid them a visit via the back door, "just to get a view of the back of the suspect's yard," but could see no traces. Viewing the house from another street did not add to the information already in the inspector's possession. He went away apparently baffled, yet the house is under observation, and sooner or later the owner of the unlicensed set will have to pay more than he would like to.

### The Question of Flats.

THE regulations provide that each flat or premises supplied with a radio receiving device be provided with a license. Interpreting this ruling:

The landlord, who lives on the upper floor, owns a crystal set, and wishing to share it with his tenant below runs a lead of flex through the floor into the next apartment. The tenant thus listens-in through the 'phones. He is liable to the two pounds fine if he does not provide himself with a license. A set cannot, unless specially licensed, be used to supply other families. To run a lead into the neighbour's house puts him under the obligation of securing a license.

Another question that might be asked by an owner: "I have a license for my XYZ 8 valves; can little Tommy experiment with crystal sets without having to get an extra license?" Yes, one license per family only is required, so that shortwave, longwave, and crystal set may be used. But any of these cannot be removed even to an adjoining whare, if the entertaining is to be done outside the licensee's family.

### The Effect of Pirating.

SO much, then, for the activities of the Department. What is the effect of pirates generally on broadcasting in New Zealand?

The radio service is maintained wholly and solely by listeners. Any one pirating upon that service is absolutely robbing his fellows of the better service that his own contribution would enable them to receive. What could the Broadcasting Company of New Zealand do with extra revenue? The whole cry of the listener is for better programmes; the whole effort of the Broadcasting Company is to provide those better programmes. They can be provided only by increased revenue.

That increased revenue is available to the company if those who are benefitting by this service recognise their obligations and cease to pirate upon their fellows and the company. With the necessary attitude on the part of the public towards this petty thieving, with the necessary vigour on the part of the authorities in waylaying the offenders, the numbers of pirates is being speedily reduced, and with the extra fees available a forward move in radio will be possible, which will contribute most markedly to the general good. The quality of the programmes and the length of the programmes could be improved with the extra revenue. More new high-class artists could be imported from Australia, or even further afield, and utilised at various stations month and month about.

That system in itself would be the best answer to the demand for variety.

**FADA RADIO**  
*Expressiveness*  
*Defined*  
*to the Last*  
*Audible Dimension*



# Can You Write Radio Plays and Poems?



At the suggestion of the IYA Musical and Dramatic Committee, a competition is being conducted by the Broadcasting Company, and prizes are being offered for the best one-act radio play. The entries are to close on

February 28.

In this connection we cannot do better, for the information and guide of intending competitors, than publish the text of a recent talk by Mr. F. E. McCallum, a member of the IYA Musical and Dramatic Committee, from IYA, when he gave some very useful hints on the writing of one-act plays. Mr. McCallum spoke as follows:—

## Some Hints for Competitors.

**THE** reasons that the company has decided on this competition are: Firstly, to endeavour to discover what literary talent is lying dormant for want of an outlet; secondly, to provide for competitors an interesting and remunerative subject for their efforts; thirdly, to secure for listeners a play or plays of a type both interesting and suitable for broadcasting. It has been mentioned that the play should be of local interest, but I would remind you that this is not a condition of the competition.

"In order to assist competitors we have drawn up a few preliminary suggestions. These deal mainly with what is necessary in a one-act play, how to go about writing a short play, and the type required or most suitable for broadcasting. For this purpose I can-

not do better than to include some extracts from Mr. John Hampden's commentary on writing one-act plays:—

"The one-act play, is as distinct from the long play as the short story is from the novel. The difference is not merely one of length. A true one-act play is not a condensed three-act play, nor can it be elaborated into a three-act play. The difference is not in continuity of action. The difference is a question of structure and of nature. A one-act play deals with a single dominant dramatic situation, and aims at producing a single effect, though the methods used may vary greatly, from tragedy to farce, according to the nature of the effect desired. And since the play is to be enacted in a short space of time, the greatest artistic unity and economy are essential to success. The attention of the audience must be seized at once and held to the end. There is no time for weak exposition, or dull or superfluous speeches, because the play is too short to recover from any such defect.

First, as to the material. If you can take this from the life around you, and create plot and characters of your own, so much the better. Accurate observation is the basis of good writing, and you will almost certainly write about the things which you know best. Everyday life is full of suggestions for plays—to those who know how to use them—though it may be necessary to warn a beginner of the danger of trying to put on the stage the incredible people and improbable events which are not at all common in real life!

"There is another method, to take an incident from a story and dramatise it. This is inadvisable for purposes of broadcasting, as the author's permission must first be obtained or otherwise his copyright is infringed, far better is it to devise your own plot. You will be well advised to begin by writing a scenario, that is, a brief outline of your projected play, and work your plot and situations up from that. In most types of play, characterisation is of very great importance. The characters in your play must be different from each other and from you, and the differences will appear in their attitudes towards each other, and towards what is happening; in their actions, their opinions, and their modes of speech. This is particularly important when writing for broadcasting, as it must be remembered that the ear is the only organ used to distinguish the characters.

"A simple and obvious method of differentiating a character is to make him speak in dialect (if you know one) or in bad English. Self-important people use formal, and sometimes affected, modes of speech; a talkative, shallow man may gabble on while everyone else is awed into silence, and thereby make their silence more impressive; a coward will meet a sudden danger in a very different way from a brave man; and so on. Moreover, the characters must be fairly consistent, and if any

changes are to appear in them the audience must be carefully prepared in advance. If one of your persons suddenly does something which belies his whole character, merely in order to make your plot work out, then your play will be a failure. If, for example, your unselfish man is going to act selfishly in a particular instance—then the motives and circumstances which work the change in him must be carefully and convincingly shown. Above all make your characters human. The entirely faultless hero and the entirely fiendish villain belong to melodrama, not to real life. We all know the hero who is invariably lassoed from an aeroplane, just as the howling Redskins set fire to the brushwood piled around him, and after a few chapters of similar events we wish he would get killed for a change. Leave him to "blood and thunder" stories make your hero a human being in whom your listeners will be interested. A one-act play should have a beginning, a middle and an end. This piece of advice is necessary, because many first plays by young writers do not possess any of these desirable things.

"Well, we have now dealt with the beginning and middle of the play, let us consider the conclusion. Climaxes might be divided into those which involve surprise and those which fulfil expectation. At the climax the play reaches its highest level of emotion. Don't forget to build your play gradually to reach that emotion.

"I would like to close by wishing all competitors the best of luck in their efforts and advise them, in the event of their not succeeding in having their play accepted the first time, to try again."

## Conditions of Competition.

- (1) Play not to exceed 25 minutes in performance, but 20 minutes' duration preferred.
- (2) Not more than five characters, but three characters preferred.
- (3) Writers are advised (it is suggested) to depend on smartness of dialogue and originality of plot rather than on "situations," "sounds," "noises," etc., permitted, providing they are workable.
- (4) A New Zealand setting of the play is preferred.
- (5) A guarantee of originality from the writer to be asked for.
- (6) Matter to be written on one side of the paper only. Typewritten copy preferred.
- (7) Each entry to bear a non-deplume only, and the name of the writer to be sent in a sealed envelope addressed to the station director in each or any of the centres, specially addressed "One-act Play Competition."
- (8) The first prize to be £5 5s., the second £2 2s., and the third £1 1s. The company to have the sole broadcasting rights for New Zealand. Other

rights of every kind to be the property of the respective authors.

(9) Judging to be done by the Literary and Dramatic Sub-Committee, whose decision shall be final.

(10) The Radio Broadcasting Company reserves the right to broadcast the successful plays.

## Prizes for Best Poems

**ANOTHER** competition is being conducted by the 2YA Musical and Dramatic Committee. In this instance prizes are to be given for the best original poems, humorous and dramatic. Cadbury's Limited have kindly donated the prizes, which in each case will be boxes of chocolates valued at: First prize, £3; second prize, £2; third prize, 10s. 6d.

Entries close on March 1. The conditions covering both poem competitions are:—

Entries not to require more than eight nor less than three minutes to broadcast.

The judges to select the three best entries in each section and announce their award as to the order of merit after the selected entries have been broadcast.

All entries to be original and specially written for the respective competition in which they are entered. Previous publication to be a disqualification.

The selected compositions to be broadcast by performers approved by the Broadcasting Company, the authors to be eligible.

Parodies not to be eligible for entry.

With the exception of the right to broadcast in New Zealand, which shall be exclusively vested in the New Zealand Radio Broadcasting Co., Ltd., all other rights and interests to be vested in the the authors.

If in the opinion of the judges the entries are of an inadequate standard, any or all of the awards may be withheld.

Acceptance of the judges' decision as final to be a condition of entry.

Publication of the prize-winning compositions in the "Radio Record" to be subject to the consent of the authors concerned.

THE RADIO BROADCASTING CO.  
OF N.Z., LTD.

INVITES Applications for the position  
of MONITORING OFFICER AT  
2YA, WELLINGTON.

Applicants must have a technical knowledge of Radio, and also a sound Musical Training.

Applications, stating age and qualifications, should be addressed to the—

GENERAL MANAGER,  
Radio Broadcasting Co. of N.Z., Ltd.,  
Box 1079,  
Christchurch.

## Before Making Your Will, Read "Five Advantages"

Will-making and estate-protection are highly important matters.

The wise testator will give careful study to the unique benefits offered by the Public Trust Office.

Five of the special advantages are explained in the new leaflet, copies of which may be obtained from any Office or Agent of the Public Trustee, or free by post from the Public Trustee, Wellington.



# Radio Round the World

IN reviewing its year's operations the New South Wales Broadcasting Company, which will shortly go out of existence under the nationalisation scheme, claims, as evidence of its popularity, an increase of 20,000 listeners in the State during the past twelve months. There are now 92,000 registered in New South Wales.

WHEN the new trunk lines between Auckland and Hamilton are completed in about eight weeks' time there will be a possibility of putting a Wai-kato concert on the air in Auckland. So great was the success of the Wanganui-Wellington relay that the Broadcasting Company may be expected to leave no stone unturned to give Auckland a similar treat.

QUITE a novelty in broadcasting was introduced by the B.B.C. on November 30 last, when it relayed a rehearsal of the new musical play "Virginia." Listeners were enabled to hear all that goes into the final moulding of a stage production—repetition of choruses, directions by the producer, in fact, all of the realities behind the scenes. It is needless to say that the whole broadcast was conducted with the usual B.B.C. thoroughness.

THE Polish Government announces the erection in the near future of a short-wave station in the neighbourhood of Gdingen (near Zoppot). This transmitter will also be used on the telephony service between Gdingen and Warsaw, as this line is at present overworked.

THE International Broadcasting Union at its recent meeting at Lausanne, Switzerland, recommended that all radio stations broadcast communications in Esperanto, the "international language," as often as possible. Results of a survey showed that 168 stations in various countries were sending out messages in Esperanto.

A SCHEME for radio programmes without the necessity of owning a receiving set, with its troublesome accumulators, is put forward by a company in the North of England. Through a super-receiving station relays would be made to houses at 1s. 6d. a week, one station serving up to 5000 houses. A house wired for this would have radio in every room and all that would then be necessary would be a loudspeaker, which could be plugged into the radio sockets on the walls of the rooms.

THE "Electrical Review" stated in a recent issue that broadcast radio telephone stations in service in Russia, and in the course of construction at the beginning of 1928, numbered 64. The wavelength used ranged from 60.12 to 1700, ten stations using 100 metres or over, while the power used ranges from 0.02 to 40 k.w. A factory in Leningrad has just completed a 25-kilowatt broadcasting station which can also work as a telegraph station with a power of 35 kilowatts. Progress in Russia radio has shown remarkable stimulation during 1928.

EXPERIMENTS in the wireless transmission of power are reported to be in progress at Birmingham University, the particular object of the tests being the provision of power for tramcars. It is not intended to transmit power over a great distance but simply to eliminate the present mechanical trolley link between car and conductor rail by the substitution of high-frequency waves. A 20,000-cycle Poulsen arc is being used, the receiver power being converted by a mercury arc rectifier.

## QUIESCENCE ON TELEVISION FRONT.

THE abrupt termination of arguments between the B.B.C. and Baird Television early in November, has been followed by a prolonged truce. Meanwhile, there are growing rumours of at least two new systems of television to be exploited by established wireless firms. It is stated authoritatively that one of these, coming from America, is a good way ahead of the Baird system, and will emerge from the laboratory stage early in the New Year.

A JAPANESE radio-engineer has invented an instrument the ultramicro-meter, which is designed to measure infinitesimally small movements or displacements. The essential feature of the instrument is a valve-generator with carefully tuned circuits. The movement to be measured is made to produce either a change in the capacity-value of the eddy-current loss set up in a conductor placed in the field of an inductance coil. This naturally causes a change in the plate-current output from the valve generator which is first magnified by the amplifying action of the valve, and is then applied to a sensitive recording galvanometer or oscillograph tube.

THE broadcasting of denominational church services in Australia is still in a condition of flux, and important changes are under consideration. The proposal is to discontinue the broadcast of sectarian services from the "A" class stations, and substitute a "National Religious Service." The ordinary church services will be transmitted through the "B" class stations. The National Services will avoid anything that even remotely savours of sectarianism, and will be organised by leading orators on religious and social topics. Already a broadcasting station has been leased by the Roman Catholic Church in Sydney for Sundays and a portion of the evening sessions during week-ends. The same procedure to a large extent is being followed by the Theosophical station, 2GB. With a Roman Catholic and a

Theosophical station already on the air in Sydney, leaders of the different Protestant churches are giving serious consideration to the attitude they are to adopt in future regarding the broadcasting of their services.

THE Cenotaph service which the British Broadcasting Corporation relayed, Sunday, November 11, was looked forward to with keen interest in France, where the British programmes are as much favoured by the natives as by the great British colonies. Every Armistice Day hundreds of people have been unable to find places at the morning service at the British Embassy Church, and this Sunday, at an overflow service, the ceremony at the Cenotaph was broadcast in the spacious courtyard of the Embassy itself. There a great gathering of Britons abroad observed the traditional silence and followed an English service on what is really British soil.

At Maisons-Laffitte, a suburb of Paris known as the "Newmarket of

France," the Cenotaph ceremony was broadcast in the Anglo-American church, Holy Trinity, as a part of the morning service, which was suspended during the period of the broadcast. These re-broadcasts, it may be added, were undertaken by two British listeners, and proved a great success.

THE ceremony of the Keys, which for centuries has been enacted every night at the Tower of London—it is really the "locking up" of the ancient building—has twice been broadcast during the last two years. There is something in it which thrills, the tramp of the feet as they resound through the dimly-lit passages, the stern challenge of the sentries "Who goes there?" and the reply "The Keys—King George's Keys." The microphone, or rather the six microphones which are required for this broadcast, take us back through the ages as nothing else can do, for which reason doubtless there have been many requests that it shall be repeated again.



"Isn't that dance band just wonderful! Listen to that glorious saxophone, its simply thrills me to pieces; Jimmy, let's dance!"

When jazz, such as only the city's star orchestra can play it, comes through your Philips "Baby Grand," you cannot resist the call of the dance.

No wonder, for dance music is not mere syncopation with a Philips Speaker—you hear the individual instruments, each sparkling with life as if you stood beside the player.

P.C.J.J. MODEL	JUNIOR	BABY GRAND
£6/10/0	£5/5/0	3/15/0

## PHILIPS

### LOUD SPEAKERS

8R28N

Advt. of Philips Lamps (N.Z.) Ltd. (Radio Dept.), Hope Gibbons Bldg., Courtenay Place, Wellington.

# 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, JANUARY 25, 1928.

## COPYRIGHT LAW.

IN another portion of this paper we publish a very full summary of the Report and Recommendations made by Mr. S. G. Raymond, K.C., the representative of New Zealand at the International Copyright Conference held in Rome last year. It will be remembered that Parliament, in order to provide time for the decisions of the Conference to be available for its consideration, passed temporary legislation, which will be reviewed during the forthcoming Session of Parliament. It will then be necessary for a more permanent basis to be determined upon.

Mr. Raymond's report is a very informative and comprehensive one, and will be the foundation upon which Parliament will consider the question. In his summary of the proceedings of Conference, Mr. Raymond points out that the initial efforts of the Conference to protect in absolute fashion the rights of authors and creators of artistic works have been trenched upon on two separate occasions. The first was in connection with the development of the gramophone industry, when, owing to the unreasonable restrictions imposed upon artistic and musical works by authors, a system of compulsory license was instituted. This has had the effect of securing to the public use of artistic and musical works. Unfortunately radio was not then in existence, and was not foreseen, consequently when radio developed, the same system of compulsory licensed use of musical copyright was not available. In those circumstances, the right to broadcast musical works has been limited and subject to the yea or nay of the musical author. It will be a matter of general agreement that the creator of any musical work shall be rewarded for his genius, but, having regard to the interests of the public to share in musical joy, the opinion has developed that there should be no unreasonable restriction of the right to use musical matter. If the public were prepared to pay a reasonable price for the privilege, then it is held there should be means to secure the general use of that music. Development of this line of thought was strongly made at the International Copyright Conference by the delegates from Australia and New Zealand, and as an outcome the Conference recognised the right of each individual country to administer in detail the conditions under which the rights of ownership should be exercised. It is thus the determination of Conference that, while preserving the copyright of the author, each individual nation is at liberty to impose rules and regulations by which the

interests of the public in the use of musical matter shall be preserved, and provision made for, if necessary, the compulsory use of such matter, with adequate payment in return therefor. This is a very important principle, and congratulations are due to the capacity of New Zealand's representative, which enabled him to strongly represent New Zealand's point of view at the Conference, and have this point of view recognised. Credit should also be given to the Radio Broadcasting Company, Limited, for its original resistance of the claims made by the copyright owners. Its development of the claims of the public to fair treatment have won for the world recognition of a new principle.

SUGGESTIONS are advanced in the document, which has been presented already to Parliament, for legislation to deal with the position in New Zealand. These suggestions set out that the existing copyright law, conferring absolute right upon the holders of copyright, needs alteration to meet present-day conditions. It is proposed that these alterations be along the lines of establishing some system of compulsory license on the lines of that afforded to gramophone companies, and that a competent authority be established to deal with the question of compensation, in default of ready agreement on the part of owners of copyright with those desiring to broadcast the music in question. These suggestions will be the basis of New Zealand's legislation which, it is pointed out, should be uniform with that of Australia.

## Radio Licenses Steadily Mount

Total Now at 45,000 Mark

THE latest figures relating to radio licenses, as supplied by the Post and Telegraph Department, are as follow:—

	Receiving.	Transmitting.	Dealers'.	Total.
WELLINGTON .....	17,467	59	605	18,131
AUCKLAND .....	14,602	60	423	15,085
CHRISTCHURCH ....	8,275	37	282	8,594
DUNEDIN .....	2,063	25	164	3,152
	44,307	181	1,474	44,962

## Featherweight World's Championship

2BL will be on the air on Saturday, January 26, to broadcast a description of the featherweight worlds championship contest between Fedil la Barba and Billy McAlister.

## Filing Covers

THE provision of our cover for filing copies of the "Radio Record" at a price of 1s. 6d., post free, has apparently met a felt want, as extensive orders have been received, necessitating the printing of extra supplies. These are now available, and orders will be promptly attended to. The filing cover is a substantial cardboard job, neatly printed with the title of the paper and pierced for ties or laces. The file will enable readers desirous of preserving copies of the "Radio Record" to maintain them neatly and compactly.

Orders should be forwarded to the Manager, Box 1032, P.O., Wellington. A few have asked for covers for the old style of our first year's issue. These are available at 2s.

## The Study of Fish

One of the finest talks given on the air for some time past was that given last week from 2YA by Dr. Johannes Schmidt, of the Danish scientific vessel, Dana. Dr. Schmidt proved enthrallingly interesting in his remarks and many expressions of appreciation have been received from listeners.

The lecture was rebroadcast by 3YA, reception by crystal-set users in Christchurch being absolutely perfect. Dr. Schmidt's address and the quality of the radio transmission received warm encomiums from the Christchurch Press.

THE RADIO BROADCASTING CO.  
OF N.Z., LTD.

APPLICATIONS are invited from Youths with sound knowledge of Radio, preferably with Amateur Operator's Certificates, for the position of RELAY OPERATOR at one or other of the Company's Stations.

Applications, stating age and qualifications, should be addressed to the—

GENERAL MANAGER,  
Radio Broadcasting Co. of N.Z., Ltd.,  
Box 1079,  
Christchurch.

For the latest  
in Valves . . .

**Mullard**  
THE MASTER VALVE

**"B" Class Stations****Mr. Owen Writes Six Years of Progress****An Application Made Visits Broadcast Stations The B.B.C. in Retrospect**

**F**OLLOWING on a conference of the radio trade which was held in Wellington to discuss the question of arrangements effected by the Department with Amalgamated Wireless (Aus.) Ltd. in connection with patent rights, discussion occurred on a proposal to establish a company to operate the question of B grade stations in New Zealand. The prime mover in the campaign is Mr. L. E. Strachan, of Christchurch, Director of Station 3ZC. In last week's issue Mr. Strachan discussed in general terms the principle of B class stations being allowed to operate a service and derive revenue from the sale of publicity over the air. Application was made to the Department by a deputation of radio dealers for permission to do this. If this is granted it is intended to form a company with extensive capital, to provide a continuous programme from early morning until midnight from four stations operating throughout the Dominion.

In an explanation of the proposal given to the daily Press Mr. Strachan states that it was not intended that the B stations would conflict in any way with the service provided by the Broadcasting Company in New Zealand, for the company would be quite prepared to utilise the present silent hours and keep off the air during the hours that the YA stations are broadcasting. They had a definite offer from one of the big Australian stations to join up with them in the matter, and if this were brought about it would mean that in all probability Australian artists would be sent to the Dominion to broadcast from the B grade stations.

The Department now has the question under consideration.

**Correspondent Replies to Criticisms.**

**I** WISH to thank you for the space given my last letter and your reply to same, and would ask for a little space to reply to Mr. N. Winstanley's letter, which appeared in your last issue. I am afraid your correspondent merely glanced through my letter, as he has quite missed my point, that is, that I was referring to conditions as they exist locally. If he could bring his set to this district and tune in 2YA at night between eight and ten o'clock, he would be in for quite a surprise. In fact I think the moving coil speaker which he is so proud of, would just keep on moving until it arrived home in Picton. He further criticises my receiver in its inability to receive Australian stations. Here again he passes judgment on something he obviously knows nothing about. He grows quite indignant at the idea of a portion of the license fees being spent on a station from which he will derive no benefit. He does not seem to realise that we have been helping to pay for his entertainment all along, and going wanting ourselves. But we are not asking for any of Mr Winstanley's money; all we ask is that a portion of our own license fees be returned to us in the way of a subsidy towards a B station in this district or, failing that, that the company proceed immediately with the erection of a relay station.

**W**RITING from London to a Wellington friend, Mr. J. H. Owen, ex-president of the Wellington Radio Society, says:—"With a letter of introduction from Capt. P. P. Eckersley, the Chief Engineer of the B.B.C. to the Engineer in Charge of the Daventry station, I left this morning by train from Euston to Northampton. A car was kindly put at my disposal and we soon covered the twelve miles to Daventry, passing through the quaint villages of Flore and Weedon with their quaint old houses of thatched roofs and mellow russet-coloured bricks. 5XX, Daventry, 1562 metres, 192,000 watts, and 5GB, 491 metres, 610,000 watts, are quite close to each other on a low hill 600ft. above sea level. The T aerials are 500 feet high and well braced with staunch guys which are well insulated. In a gale the top sways over two feet from the perpendicular. Both buildings are simple and plain, brick structures. The dozen or so engineers in charge live on the premises, and have a billiard room and library for use in leisure time. At 3.40 the car was in readiness and after a hasty cup of tea I was driven to Rugby, 12 miles, and in one and a half hours Euston was reached at 6 p.m. It was a most interesting experience and I shall have lots to tell of the stations when I return. To-morrow evening I go to the B.B.C. at Savoy Hill, from 8.20 to 9.30 p.m. to hear a vaudeville programme being broadcast. It is not easy to get these passes, due to the fact that studio space is very limited in the present quarters. In three years time the B.B.C. will be housed in their new permanent quarters near Laugham Place where their largest studio will seat 1000 people."

**Furniture Conveyance**

**A** WELL-KNOWN resident of a northern town recently transferred his home to Auckland. He obtained alternative quotations for the transport of his furniture from the Railway Department, and from a well-known carrying firm. In a letter to the Department he admits his surprise when he learned that the railway charge (plus cartage to and from rail) was substantially cheaper.

The Department states that a strong impression exists that its charge for the conveyance of furniture is high. As a matter of fact, a recent reduction of 32 per cent. (more than 6s. in the £1) enables the railway to quote a particularly attractive price for this class of traffic.

In conclusion, I would like to state that I am quite in accord with your views that relay stations would meet the position here and elsewhere where similar trouble is experienced. If such stations can give a satisfactory service, then I think, as I stated in my first letter, that B stations should not be subsidised. But until the relay service is started, several of the B stations are providing a necessary service and should be paid for it.—J.L. (Hastings).

**T**HE advent of Christmas marked the seventh year of broadcasting in England. In fact, it was on November 14, 1922, that the first B.B.C. programme was transmitted. That evening the announcer said that broadcast messages would be sent twice each night, at 6 and 9 p.m. The call sign would be 2LO, and the wavelength 360 metres. "And," comments the editor of "Popular Wireless," "I shall never forget how after the official announcement, he (the announcer) began a little talk by saying: 'You know, this broadcasting is going to be jolly good fun!'"

But wireless in England has not been "jolly good fun," but as that same editor remarks: "There is rather a lack of spontaneity, and a lack of that intimate comradely feeling which was so great a feature of the atmosphere of broadcasting when the old B.B.C. first began its duties," and adds:

"Perhaps aloofness is the keynote of the present atmosphere of broadcasting."

Suggesting a remedy, "Popular Wireless" makes the recommendation that the announcer be given more scope to

exercise his personality, perhaps in a joke, while reading the news bulletin, "and above all a little warmth."

During the six years of progress since 1922 the growth of the English broadcasting has been very rapid. From the very few officials in that year to the huge staff of to-day, from the small studio "decorated with soap boxes and suspended microphones" to the multiplicity of elaborate studios at Savoy Hill, the B.B.C. has advanced.

What the next six years will bring forth can only be a matter of speculation; certainly rapid advancement is assured, and that only through a little co-operation and a little warmth.

**Australian Features**

Coming features from the Sydney stations are announced as follow:—

**January 24.**

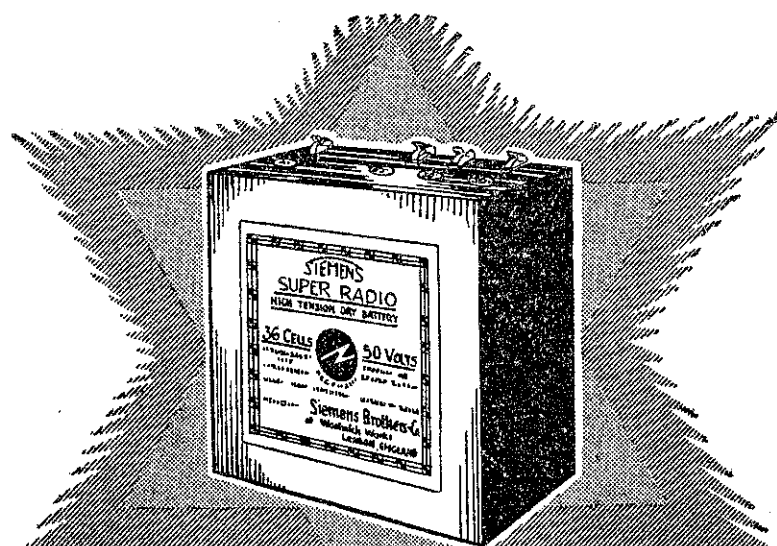
2FC, 8.37: Francis Hoban, pianist.  
2BL, 8.15: The Blue and Gold Dandies Revue.

**January 25.**

2FC, 8.0: Prologue and incidental music from the Prince Edward Theatre.  
2BL, 8.0: Savoyan Dance Band.

**January 26.**

2FC, 8.0: Radio Revue.  
2BL, 8.0: The Kookaburra Sextet.



**The Most Powerful H.T. Dry Battery in Existence**

Siemens Super Radio 50 Volts Dry Battery ensures clear, "noiseless" reception. Long life and general satisfaction assured. Made of finest materials throughout by a firm with over 50 years' experience of battery manufacture.

**SIEMENS**

N.Z. Agents:  
**CORY-WRIGHT & SALMON, Engineers, Wellington.**

# How can Radio Help Musical Societies?



THE proposal made by Mr. C. B. Plummer was first published in the Auckland "Sun." After outlining the central thought, namely, that listeners should pay an extra 2s. fee in order to help the musical societies, and in return be assured of the broadcasting of their concerts, Mr. Plummer said that in some respects the idea followed the proposal of Sir Thomas Beecham in seeking to establish English opera by subsidy and the assistance of the B.B.C.

It was stressed that, in view of the very precarious condition most of the amateur organisations find themselves in, they consider it impossible to broadcast for fear of a falling-off in attendances. With a satisfactory subsidy forthcoming it was considered that orchestras and choral societies would be in a more or less assured position, and be able to supply programmes for broadcast purposes and safely run the risk of smaller audiences.

It was also claimed that this would have the result of raising the standard of music throughout the Dominion, the various societies being then in a position to secure better players, and also wider repertoires. Practically it would mean the linking up of all musicians connected with the New Zealand societies under the radio banner. "It might seem a bold scheme," stated Mr. Plummer, "but with the falling off in concert attendances as a result of broadcasting, the cinema, bridge, and other attractions, linking-up with broadcasting seems to be the only way of saving many of our musical societies whose existence at present is one continual struggle."

Mr. Plummer said he was aware that difficulties would be confronted, but was of opinion that, with the co-operation of all parties concerned, some such scheme could be devised. All the amateur musicians wanted was the pleasure of playing, and the only desire financially was to make ends meet.

In preliminary letters submitting his proposal to the Radio Broadcasting Company Mr. Plummer pointed out that for the payment of 2s. crystal owners in the four centres would receive high-grade concerts at 2d. each, while the owners of valve sets would receive fifty concerts for their 2s. As a basis for discussion he suggested that subsidies be paid to the different societies according to the expenses incurred in running their concerts. A

"At the first glance, New Zealand listeners-in will probably view with deep suspicion—and even unequivocal hostility—any proposition that threatens to raise their license fees. It should not be difficult to convince them, however, that Mr. C. B. Plummer's proposal to subsidise musical societies through a small levy on license fees has much to commend it. With agreeable candour it is admitted that the direct benefit will be in favour of the

organisation "off the air," can only be deplored. At the same time, the broadcasting authorities could more than fill the gap by adopting the suggestion made by Mr. Plummer.

The proposition is so obviously one to benefit the company that a liberal view on its part might reasonably be expected. If the desired schedule of subsidies can be distributed on a maximum levy of 2s. for each licensee, then the company should be prepared to concede at least half of that amount from each fee. The result would lessen the amount of the extra charge upon the license-holder, and the wider range of entertainment available would do a great deal to popularise listening-in, an object that, in the interests of its business, the company should steadily keep in view.

For music-lovers, there is a much wider purpose to be served. It is common knowledge that in the hurried processes of modern life people find little leisure to go forth to concert-halls. It is easier to play the gramophone, or to tune in on IYA. Musical societies have consequently faced with dismay a great falling-off in attendances, and an increasing difficulty in enrolling subscribers to give them support. Yet it is certainly not the conscious intention of listeners-in and gramophone lovers to stifle the musical talent developing in the community. Only behind a grossly material outlook could that intention survive. It is to be hoped that the great radio audiences will rally round.

**AN important proposal involving assistance on the part of radio to the musical societies throughout the Dominion has been made by Mr. C. B. Plummer, of Auckland. The suggestion is that listeners should pay an increased licensed fee of 2/- per annum, yielding some £4000 annually, and subsidy should be made from this fund to the organisations in different centres. In return, these societies should each provide four concerts annually for broadcasting, yielding a total of approximately 50 concerts per annum or one for every £80 subsidy. The proposal is important, and contains an idea which may lead to some concrete assistance being given. Various aspects are discussed in the following columns:—**

basis might be that societies whose expenses were more than £800 per annum should receive £100 per concert, this to be the maximum.

Mr. Plummer considered that such a proposal would render a wonderful service to the cause of music and that these additional concerts would stimulate an increase in radio licenses and so permit further improvement in the general programmes of the company. Mr. Plummer frankly admitted there might be difficulties in working out the idea, but he advanced the idea as a constructive effort to help matters.

## Press Views

Commenting editorially on the proposal, the Auckland "Sun" says:—

societies; but an indirect benefit in greater volume will go towards listeners-in and the Broadcasting Company.

"The broad plan outlined yesterday by Mr. Plummer provides for: slightly increased levy on license-holders. Allowing for an increase of 2s., it is estimated that this would provide a sum of £4000, to be devoted to the musical organisations in the four centres. In return for the subsidy the societies would be obliged to give broadcast concerts, of which there should be a total of at least 50 a year.

"Though an increase of only 2s. in the levy does not sound much, it will not be greeted with favour unless listeners-in first examine the situation closely, and realise the great wealth of talent the scheme will place at their disposal. New Zealand listeners-in have shown themselves to be severe critics of broadcast programmes. Because an artist is miles away in a studio, the great invisible audience shows no disposition to be forgiving. But because it lacks the spirit of charity, it can in no sense be called capricious. Listeners-in, speaking broadly, constitute a great and intelligent body. The failure of the authorities to gauge their standards caused trouble that is still remembered. A faint echo of it is heard even now, though it will be generally conceded that a much higher standard in broadcast programmes has within recent months been attained.

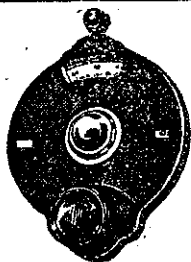
As the critical faculty of the radio audiences must be recognised, it follows that the response must be an adequate form of entertainment. Since the amateur musical organisations of New Zealand command a great variety of trained talent, it is surprising that the impulse now given by Mr. Plummer did not in the first instance come from the Broadcasting Company. Here in Auckland there has been difficulty over the engagement, for broadcasting purposes, of the Auckland Municipal Band, and the present deadlock, which is keeping an admirable

## Views of Mr. Harris

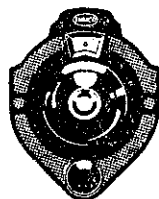
### Desire to Help Societies

COMMENTING on Mr. C. B. Plummer's suggestion to increase the listeners' fee by 2s. and thus provide £4000 additional revenue for subsidising the amateur musical societies in the four centres, Mr. A. R. Harris, general manager of the Broadcasting Company, stated that the object of the proposal was much to be commended. The company's experience had shown, he said, that there was a good deal of amateur talent in this country, and the choral and orchestral amateur organisations of the type referred to by Mr. Plummer not only deserved, but were worthy of the greatest public support in their object to develop this talent.

The broad outline of the proposal, said Mr. Harris, was for the amateur, choral and orchestral societies to permit the broadcast of a total of some forty-eight concerts from the four main centres in return for an estimated revenue of £4000. It seemed to him, however, that an expenditure of this amount would have to be spread over a greater number of concerts in order to give listeners an adequate return for the increased fee. The concerts presented would not, in actual practice, exceed an average of twelve concerts from any one station. The total cost made the cost per concert received by the average number of listeners somewhat costly in return for what the listeners as a whole



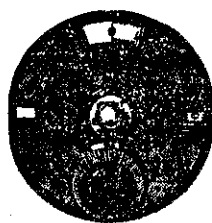
## EMMCO Vernier and Valmo Dials



Abroad, Emmco presents an up-to-date line of dials suited to all requirements.

In addition to the standard Vernier Dials, the Valmo patterns, designed for both clockwise and anti-clockwise movement, are worthy of note.

Ratio 10 to 1. Metal Rotor. Bakelite Finish.  
ALL EMMCO PRODUCTS ARE FULLY  
GUARANTEED.



MADE BY ELECTRICITY METER MANUFACTURING CO., LTD.

Distributors in New Zealand:

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



received. To be of real value, therefore, the amount involved would require to be spread over a greater period so that a greater average number of listeners could conveniently derive the benefit than would be the case with such a limited number of performances.

#### Value for the Listeners.

**CONTINUING.** Mr. Harris said that there was no doubt that part of the subsidy would be spent in expenses incurred by the societies on account of the public performance of the concert, which expenditure was of no direct value to the listener. Then again, full orchestras and large choirs, more so where performers are of varying ability, do not broadcast as satisfactorily as small orchestras or vocal quartets of selected combinations. From the listeners' point of view, the performance of amateur choral and orchestral organisations would not be as economical or as efficient, except perhaps for a few selected numbers, as the performance of a concert specially organised for broadcast purposes only.

"What applied to gramophone recording more or less equally applies to radio broadcasting," said Mr. Harris. "A microphone is the medium of pick-up in both cases, and in gramophone recordings, where small orchestras and small choirs of selected performers are utilised, the results are noticeably more efficient than is the case in full orchestras and large choirs. There is, of course, an atmosphere in the broadcasting of a public performance that has a psychological appeal to the average listener, but this is not a part of the musical development that amateur musical societies propose to foster. The average radio listener will naturally question if there is any logical reason, apart from the actual value received, why he should be specifically taxed to support amateur musical organisations. He will contend that it all depends on the amount of actual service that he personally receives in return for a given expenditure as compared with the service which he can obtain for the same expenditure in another form. Then, again, the expense incurred, other than the cost of the concert programme, must not be overlooked. A concert performed in a hall is of no value to the listener. What he wants is the broadcast of that concert so that he can obtain recreation at home. It is the broadcast of a programme or the placing of a performance on 'tan,' as it were, at any point in a particular area that costs the listener the most expense, and there are many instances where the additional cost of relaying a concert from a public hall might be better utilised, from the listeners' point of view, in special items from the studio where no such extra costs are involved."

#### Will Concerts Increase Popularity?

"IN respect to the subsidising of amateur musical organisations and their broadcast of special concerts improving the license position," said Mr. Harris, "we have broadcast special programmes and relays of public performances of every available character, and after careful analysis of the results we have no evidence that the broadcast of the type of programmes proposed, more so the choral performances, would make any appreciable increase in the patronage of our existing services. In saying this, we do not desire to infer that the concerts of amateur societies are not appreciated by listeners, as we know from those concerts we have re-

lated that they are very much appreciated. They are, however, not of the type to attract the general public, as is proved by the experience of the societies. So far from there being an increase in the number of licenses, it is more probable that there would be a reduction, not because of the amount of the increase, but because of the principle involved in a compulsory increase."

#### Value in Proposal.

**MR. HARRIS** again reiterated that he was very pleased the proposal had been made, and that it should have been so favourably commented upon by the "Sun." It showed the keen interest which was taken in broadcasting and its relation to music. He pointed out that the Broadcasting Company had musical and dramatic committees in Auckland and Wellington, representative of the more prominent organisations and the company was pleased to have the recommendations of those committees, which met regularly. It was the earnest endeavour of the Broadcasting Company to co-operate in every way possible with the musical organisations of the Dominion, such co-operation being of advantage to the general public, the Broadcasting Company, and the organisations concerned. The company had, in the past, given tangible proof of its keen desire to foster the musical art in New Zealand, and it hoped to do increasingly more in the future. It felt, however, that the object of the proposal would not be served by an increase in the listening-in fee.

"With a view to availing itself of all variety of entertainment offered and as an outcome of Mr. Plummer's overtures, the company is now considering what it can do towards assisting the more prominent amateur musical organisations in the main centres in return for broadcast performances, and a proposal along these lines will shortly be placed before the company's Musical and Dramatic Committees."

### Radio Factors

#### How Far can the Company Go?

**NOTHING** but good can result from a discussion of Mr. C. B. Plummer's proposal. The aspect which appeals to us is the recognition of the part which broadcasting plays in the musical life of New Zealand. This part has great negative and positive potentialities. Radio broadcasting can, it is thought by some, make or mar the various musical organisations. It is, however, not our opinion that broadcasting is a menace to the musical societies; that is the view held by some of the societies themselves, and that view, whether it be right or wrong, has to be taken into consideration. Personally, we think that the more the societies broadcast the more they will spread the love of music—which is, after all, the purpose of their existence in the community—and thus the more they, as societies, will benefit. But the immediate concern of the societies is finance, for musical societies, like all other organisations, must have the sinews of war. Though the members have banded themselves together for the purpose of fostering the love of

music, the society, as a body, is not entirely altruistic. A society must watch its finances. It may be that it takes a short-sighted view when framing its policy in respect to the best way of ensuring a satisfactory balance-sheet, but there it is.

**MR. PLUMMER'S** scheme has not met with unanimous approval, even by the musical societies which it is intended to benefit, but it has opened up a very interesting subject for consideration. The difference between the viewpoints of the societies is shown in Christchurch, where one gentleman expressed the opinion that even if his society received only £50 from the anticipated £4000, it would be in a very much more secure position than it is at present. Other societies, however, fear that if the scheme be put into operation, they will be faced with diminished audiences. The choral societies picture the effect of a half-empty hall on their membership, and on their singing, and feel that they cannot support the proposal at any price. If the attitude of these societies be persisted in, then there is no hope for any proposition, whether it be proposed by Mr. Plummer or by Mr. Harris, for the basis of both schemes is the broadcasting of the concerts.

If there be no chance of the concerts being broadcast, there can be no co-operation between the listeners and the societies. Opposition to the publicity medium of broadcasting is, of course, an entirely mistaken policy.

The analysis which Mr. Harris has made of Mr. Plummer's scheme pronounces it as hardly practicable, though he admits that the object of the proposal is very much to be commended. That the greatest musical organisation in New Zealand should be concerned, is only to be expected. The Broadcasting Company may assist, and is quite anxious to do so, but as the trustees for listeners' money it must see that the listeners get fair value in return for what is done. The Broadcasting Company does not approve of increasing the license fee. From knowledge born of experience, it knows that that proposal is doomed to failure.

**PENDING** publication of the proposals now under consideration by the General Manager for perhaps a direct subsidy on a basis within the present means of the company, it may be of value to outline some of the

factors which must be taken into consideration. If the company reaches the view that such a direct subsidy is feasible—and it will be agreed, we think, by the majority that an increased license fee is not feasible—then the basis of any payment of listeners' money must be simply in return for items broadcast, rather than an indeterminate subsidy. Some of the essential costs of musical societies in presenting public performances are for items which do not appeal to the radio listener in that they duplicate costs already incurred in providing a studio for the distribution of musical numbers. These items are such as the hire of the hall, the hire of costumes, advertising, management, etc.—all costs necessary to the presentation of the concert to the public, but not essential to a radio performance. Then again, in relaying a concert, expenses are incurred by the company which might be better spent on artists in the studio.

**IN** looking at this matter it has to be remembered, we think, that no subscription that radio can in point of fact pay is going to get these musical societies out of their difficulties. Neither the gramophone or the radio are in themselves responsible for their plight. There are the social habits of the people, and, above all, the economic factors governing the need of these societies securing sufficient from one or perhaps two public performances to cover the whole of long sustained preliminary expenses. In these days only those shows which run for long periods, and so spread their preliminary and overhead charges, have any chance of clearing expenses and making money. Amateur societies cannot secure long runs. Therefore, they are compelled to rely upon the voluntary assistance of members and a sympathetic public.

We think Mr. Plummer is to be commended for advancing his idea, and we sincerely hope that it may have a practical outcome. We have endeavoured to point out, however, some of the factors which must weigh with the management in its administration of listeners' funds specifically subscribed for the purposes of radio. These factors will necessarily limit the amount that may be offered at this stage as a subsidy.

## Magnavox Power Speakers

*Musical Richness. The most accurate Radio Reproducer.*

THE BELVEDERE DYNAMIC SPEAKER is a beautiful piece of furniture, as well. Here we have beauty, generous volume, and richness of tone, all without distortion.

**Get all your Set can Give**

DEMONSTRATIONS ARRANGED.

UNITS Model .....	£8/15/-
BELVEDERE Model .....	£17/10/-
BEVERLEY .....	£19

**F. J. W. FEAR & CO.** THE RADIO HOUSE

63 WILLIS ST., WELLINGTON.

Phone 41-466.

### Locating Trouble.

THE first thing to be done when the set suddenly fails is to ascertain whether the trouble is within the receiver or quite beyond your control. Make certain by tuning to some other station that the broadcasting station has not gone off the air. If no station is heard, and the set is operated from the power point, ascertain, by turning on the nearest light, whether the electric supply has failed. If it is a breezy day, be sure your aerial is still O.K.

### Test the Batteries.

HAVING eliminated outside causes, investigate the batteries to make sure they are not run down. A failing battery indicates itself by the slow fading out of the reception. Be certain that the loudspeaker or battery wires have not become broken or disconnected. Next turn your attention to the valves, and ascertain whether any filament is broken. In these days of low consumption valves this is not always easy merely by inspection; but by connecting a small battery and a pair of 'phones in series with the filament prongs of the valve it is possible to tell.

If no click is heard in the 'phones the filament is broken. By keeping a spare valve on hand, much lost reception will be prevented, and much worry avoided.

If an unwanted noise appears in the receiver, first tune to another station, and find whether the noise disappears. If it does, it is being caused by the broadcasting station or from some person listening to the station, and is beyond your control. The only remedy is to listen to some other station until the fault is rectified. If the noise still continues, irrespective of what station is tuned in, disconnect the aerial from the set and listen once more. If it is no longer heard, the trouble is due to a faulty aerial, or to atmospheric conditions, or to interference from electrical machines, violet ray plants, battery chargers, etc.

The fault can be sheeted home to the aerial by employing a temporary aerial. If the noise is arising from the usual aerial, the use of the temporary wire

in its place will remove the noise. Should the noise return when the temporary wire is connected, it is due to outside conditions, and cannot be removed.

### Beware of an Exhausted B Battery.

IF the noise still continues with the aerial removed, examine the bat-

teries—particularly the B battery—which, if run down, is a potent source of crackles.

An alternating current hum, which continues when the aerial is disconnected, is probably due to the eliminator being placed too near the receiver.

When all these possibilities have been exhausted, then is the time to send for the expert, or to examine the wiring of the set, AND NOT BEFORE.

In conclusion, a word of warning to readers owning sets made by reputable firms. If anything goes wrong, and, after applying these harmless tests, you decide that the trouble is within the receiver, do not interfere with the wiring of the set, or allow the well-meaning friend to "adjust and assist," but notify the vendors. They constructed the receiver, and understand it, and it is their place to set it in working order once more, but don't call an expert to turn on your aerial switch.

### Distortion from B Batteries.

MANY readers have doubtless wondered why, as their B batteries run down, some distortion in tone occurs. Speaking generally, this is due to the use of too much C battery negative voltage. Supposing, for example, that 15 volts of C battery are used at 135 volts on the plate (B battery)—it may be more or less, according to the circuit. As the B battery voltage drops it is obvious that there must come a time when 15 volts C battery will be too much. The remedy, therefore, is to reduce this bias-voltage until clear reception is obtained.

### Alternative to Earth.

WITH summer dry weather ahead some set owners may find it well

worth their while to consider the counterpoise as an aid to better reception. In some localities a counterpoise is superior to the usual earth, while in other localities at times it is useful to have a good counterpoise as an alternative to the earth. Even where a good earth connection gives good results, a counterpoise forms the basis of a number of most interesting experiments in reception. When a counterpoise comes under consideration, however, there are many experimenters who hesitate to erect it because it does not provide a ready means of "earthing" the aerial when the receiving set is not in use. Undoubtedly this is the chief disadvantage of a counterpoise. It is an easy matter, though, with an ordinary double-pole, double-throw earthing switch, to provide alternative leads to the set from earth connection and from a counterpoise, and at the same time to provide a means for earthing both aerial and counterpoise when the set is not in use.

When the earth lead is connected to the set the counterpoise lead is rolled up and placed out of the way. When the counterpoise lead is connected to the set the earth lead is placed out of the way.

The only difficulty about erecting a counterpoise is that the wire must be run as nearly as possible directly under the aerial and at an awkward height—namely, two or three feet above the ground. On many building allotments there is no room for it, especially if the aerial is lead partly across the roof of the house. Perhaps the best course in most cases is to do everything possible to improve the earth before trying the other expedient.

### Obtaining Pure Reproduction.

IN the attainment of pure reproduction as much care should be taken in arranging the position of the loudspeaker as in choosing that instrument. The speaker should not be backed against a wall, or any large surface. Frequently a certain note will come in disproportionately loud, which seems to indicate the speaker is resonant at this frequency. By moving the speaker a few inches at a time away from the nearest wall a spot may be found where this effect is minimised or even eliminated.

### A Trap for the Unwary.

A correspondent to the Auckland "Sun" writes:—

"I have discovered to my cost that these battery eliminators may on occasion be traps for the thoughtless or the worried. I run my H.T. from the mains, but not my L.T. The other night, the speaker being in full blast, some small domestic crisis arose. Someone said, 'For goodness sake stop that din!' Snap went the switch and the desired silence ensued. But this morning I found that the valves had been on duty all night and that my accumulator had not the kick of a fly left in it!"

A FRAME aerial is generally unsatisfactory when used in conjunction with a crystal set. If a good outdoor aerial is not practicable, you should use an indoor aerial of the type which hangs under the ceiling. Failing that, a long wire wound round the picture rail will give better results than a frame aerial.

# A Corner for Beginners

—By Observer—

## Important Notice Regarding Enquiries

AS our service is now being fully availed of and as almost every mail brings in a large number of enquiries on various topics, it has become necessary to adopt some system of uniformity. Correspondents are therefore requested to observe carefully the following points. Failure to observe these may mean delay in answering and even the loss of the letter.

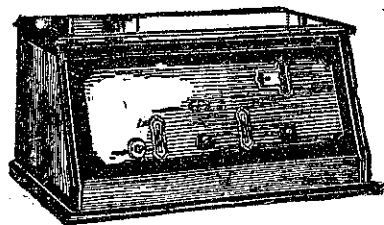
1. Addresses.—All technical correspondence, whether inviting reply or not, must, in future, be addressed: "The Technical Editor," "N.Z. Radio Record," Box 1032, Wellington. This includes letters to "Pentode," "Galena," and "Observer," as well as those that have in the past been erroneously addressed the Editor.

2. Each letter to bear (inside) the department to which it refers:—Construction, Crystal Corner, Questions and Answers, or General.

3. Letters inviting reply must be accompanied by a stamped and addressed envelope, but the right to answer any letter through the columns is reserved. Correspondents should watch the columns carefully as one letter may be answered in more than one section.

4. Advice requiring discrimination between factory-made sets or between makes of components cannot be given.

5. All letters to be signed, but a nom-de-plume may be added.



## Always!

## You're There with a Crosley

The Greatest 6-Valve Set Known

# CROSLEY RADIO

WITH COMPLETE EQUIPMENT  
(excluding masts),

## £24/10/-

TERMS if desired. 70/- Deposit, 10/- per week.

Fill in the Coupon Now!

## MESSRS. ABEL, SMEETON, LTD.,

Wholesale and Retail Merchants,  
27-29, Customs Street E., AUCKLAND.

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

Name

Address  "R"

## IN BRIEF.

ZL 1AP (Te Awamutu): Thanks for the information, but the error has been previously corrected.

## Baffle Board for Dynamic Cone.

COULD you give me particulars regarding the size of baffle and cabinet, to house a dynamic power 6 volt D.C. unit. I have the unit, but am not sure of the dimensions.—E.K. (Lyttelton).

ANSWER: The dimensions were given in Vol. II, No. 24. The optimum size for a baffle board for the unit in use is 2ft. 6in. x 1ft. 10in. of 1in. timber. A cabinet can be made to house both speaker and set, the set being on a shelf above the speaker. The size of the cabinet should not be smaller than that specified for the baffle board.

## Leclanche Batteries No. 2.

I WOULD be grateful if you would give me information re above. I can purchase very reasonably sufficient Leclanche wet batteries to give 90 volts. These are the same as the New Zealand Government uses in 'phones. Would this B battery be any good for my 5-valve Browning-Drake? I am told that the amperage would be no use for radio. Would you advise wet battery?—J.A.M. (Dannevirke.)

ANSWER: In Vol. II, No. 25, "Pentode" went to some length to explain the construction and the operation of primary batteries, of which the Leclanche cell is a type, and the correspondent cannot do better than to refer to this article. In answer to the questions: Yes, such a battery of cells could be used for the B battery, but there is the factor of maintenance and bulk. These cells require a fair amount of attention, especially because

of corrosion, while five dozen would require approximately eight feet square of space, a factor to be considered. These two factors would have to be balanced against the greater service, for the very small current draw would render them very efficient as far as length of service was concerned.

Actually, a "dry" battery is composed of Leclanche cells with the liquid concentrated into a paste. While the size of each cell is necessarily reduced to allow of a battery of reasonable proportions being constructed, the voltage remains the same, i.e., 1.5 volts per cell. Reduction of size means reduction of ampere hours or life of the battery, so that one would expect the batteries made to supply the greatest drains would be the largest. This is actually the case in the A, B and C batteries. The A cell most nearly approaches the wet Leclanche in point of size, and is so made to withstand the greatest amperage drain. The B is next in point of size per cell, while the C, which has but little drain, has the smallest cells. This explains the varying sizes of B batteries, e.g., heavy duty, etc.

In short, the advantages of the wet battery is its greater life and capacity but this is offset by the greater attention and space it requires.

## Signals Very Weak.

AT present I am working a five-valve set and am getting very poor results. It is very well situated, the aerial being on a hill overlooking the sea. The masts are 110 feet apart and 50 feet in height. Station 2YA is the

## Questions and Answers

best, and 4YA I cannot hear at all, though situated in the South Island. The Australians I can hear only on the 'phones. The batteries are quite in order, as I have had them tested. What type of set do you think would give the best results and what is the optimum height for the aerial, and what kind of wire should be used? 2YA has been great lately. Would it be possible for the announcer to give us the results of the Test cricket after the clock chimes eight in the evening. The Wanganui relay was perfect. Are we going to hear Dalton's Orchestra again, and when? They were great last week.—"AMATEUR."

ANSWER: Apparently there is something in the set which is not performing up to scratch; possibly there is a burnt out transformer. A case of signals being considerably weakened through this and other associated causes was related in our "Beginner Corner" a week or so ago. A systematic overhaul of the set is recommended, and this should be proceeded along the lines suggested by "Pentode" this week. The Australian stations are very weak at this time of the year, but it appears that there is more than this wrong with the set. To recommend any set and say that it would be capable of daylight reception of any station or stations would be making a claim that would be very difficult to substantiate. Usually a set with a radio stage of screen grid, and a pentode or two power valves in push-pull, will give very good results, providing it is carefully constructed. Pentode will describe such a set in a future issue. The question of aerials was dealt with in our special issue, and the correspondent could do no better than to procure a copy of this issue if he does not already possess one. The reference number is Vol. II, No. 22.

## Slope of Aerial.

MY aerial is suspended between two 30ft. masts. I am thinking of raising the end mast another 10ft., thus having a sloping aerial. Would you advise me to do this?—N.L. (Miramar).

ANSWER: The optimum arrangement for the aerial is to have both ends equally high, but where it is not possible to raise the lead-in end to any great height it is wise to raise the other end as high as possible in order to compensate for the lowness of the lead-in end. In no consideration should the distant end be lower than the lead-in end.

## Neutralising With 2R.F. Stages.

I BUILT two stages R.F., described by "Megohm" in "Radio Record" issue of May 25, 1928. I cannot stop the R.F. valves from oscillating. I have tried different capacities of neutralising condensers and have reduced the number of turns on primary, but all to no advantage. The valves in use are 201A in R.F. stages and Phillips 615 in detector. I have reduced primary from 15 to 12 turns and I have 15 turns on the tickler. Could you please offer a suggestion to help me?—C.H. (Christchurch).

ANSWER.—This correspondent is not alone in writing in to ask for help in the neutralising of two R.F. stages

receivers, so we feel some justification in treating the question fairly fully.

The first consideration is the valves, and in this respect the correspondent has erred. Reference to the notes of Mr. Fear's lecture before the Wellington Amateur Radio Society will show that the valves used are rather unsuitable for the radio side of such receiver as the 2 R.F. Browning Drake. The 201 type of valve is expressly stipulated by the makers to be a detector or amplifier, and has an internal resistance rather too low to be suited to the position given to them by the correspondent. In general a high impedance valve such as the 119 type should be used. Suitable valves were suggested by Mr. Fear and published in our issues of October 19 and 26, which the correspondent would be well advised to refer to. Reference to these notes will show that he has the wrong number of turns on the tickler. The 201 valve requires 17 turns, while the 199, 25.

As to the method of neutralising the usual balancing operation should be used, that is, the Rice method. Another suggestion is to take the grid return from the first radio frequency transformer through the r.f. choke to a biasing battery of 3½ volts. Each valve should be neutralised separately.

## Noise in Receiver.

Could you enlighten me in any way as to the cause and correction of the nuisance which I have experienced with my set from time to time, not very regular. I have a three-valve set, about five months old, batteries all O.K. The noise sounds like a planing machine in some timber mill or very loud beam wireless.—I am, etc., PUZZLED (Auckland).

ANSWER: It is quite likely that the noise is originating outside the receiver and it sounds like a power leakage. The correspondent should ascertain whether any of his neighbours are having the same difficulty in which case it is for the district engineer to settle. However, if this is not the case, the correspondent would do well to overhaul his set as "Pentode" describes in this issue. It is quite possible that the grid leak or the grid condenser is at fault. Were the grid leak the trouble a "motor boating" effect would be the result. This would give a noise or series of noises in the speaker resembling the undulations on the exhaust of a motor-boat. All the grid returns should be checked for breaks or imperfections.

## Capabilities of a Four Valve.

WOULD a four-valve regenerative set give me good speaker strength from the American stations, providing I have a good aerial and earth, and 112 volts on the plate? Would I get speaker strength from the Australian stations if I used a loop aerial?—"GRID" (Blenheim).

ANSWER: It is impossible to say what a receiver will do; so much depends on the components used and the handling the set is subject to. It is quite possible for a radio owner in one locality to get Japan on one valve, while for another with three valves it is an impossibility. It is very doubtful, however, that a loop aerial will give the Australian stations on the loud-speaker. Watch the DX notes, as quite frequently the types of receivers used are described and the locality is always given.

Longest  
Life,  
Honest  
Rated  
Capacity



Voltage	Capacity Amp.	Price
4	60	£3 10 0
6	60	4 10 0
6	80	5 5 0
8	100	6 5 0

## For SALES and SERVICE—

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.**  
CH-CH  
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.

# THE WOMAN'S POINT OF VIEW

By "VERITY"



## Making Stockings Last

The mother of a family spends a lot of time in darning stockings. Here is a quick way of dealing with those large holes that appear miraculously in the heels and knees of boys' and girls' stockings.

Get some cotton net the same shade as the stockings. Cut off a piece a little larger than the hole and stitch over the hole on the wrong side of the stocking. Then on the right side of the stocking darn into the net until it is closely covered.

You will find that not only is the darn very quickly done in this way, but it will last twice as long as an ordinary darn. It will also have a much neater appearance, and be much more comfortable for the wearer.

Suspenders are responsible for many of the ladders that appear in almost new stockings. French suspender makers have realised this and have thoughtfully improved their suspenders to prevent it. Between the button and the clip of the suspender they have put a short piece of satin ribbon. The

button is placed under the stocking top, the piece of ribbon over the stocking and button, and then the clip pulled firmly over the ribbon. This prevents the clip from coming into direct contact with the silk stocking and there is no drag to cause ladders.

You can make this improvement in your own suspenders by getting a few inches of ribbon and stitching it between the clip and the button.

## Raising the Nap

TRY giving your cloth coat or skirt an iron tonic when the first signs of shininess appear.

Cover the material with a damp cloth to soften the fibres, then pass a hot iron very close to the damp cloth, but not touching it. This brings up the nap and does away with the tired, shiny look.

Don't iron in the ordinary way; it would flatten out the nap instead of raising it.

## A Sober Stone

WELL within the last hundred years fashion has completely reversed the verdict of the ancients. They considered the amethyst one of the most precious gems, to-day it is one of the least esteemed.

That may be because its rich wine colour is too sober for modern taste

and partly because we have lost the touching faith of our forefathers.

Certainly, if only half the tales were true, the ancients had every reason to revere the amethyst, for its virtues were greater than those of almost any other gem.

It could, for instance, do what every barber longs to do, namely, restore the hair to a bald man's head. All the middle-aged mediaeval gentleman had to do when he was getting a little bit thin on the top was to wear an amethyst touching the skin on the third finger of the left hand and lo! the hair would sprout again.

## Intoxication Insurance.

Soldiers wore it because, as every fighting man knew, it ensured protection against sudden death in battle. Statesmen wore it as a preservative against treason and to obtain the favour of princes; conspirators wore it because it saved the wearer from being cast into prison. There was hardly a man who could afford not to be protected by wearing an amethyst.

But its most famous power was that of saving the wearer from the evils of intoxication, a power bestowed on it by the God of Wine himself. According to the ancient legend Bacchus once fell in love with a slender Greek nymph who rejected his proposals and appealed to the chaste Diana to save her from the god's unwelcome attentions.

Whereupon Diana changed the nymph into an amethyst. Bacchus was overwhelmed with grief at the loss of his beloved, and, gazing at the wine-red stone, vowed that henceforth none who wore it should ever be afflicted by intoxication.

Some say that the word "amethyst" means "not drunken," in allusion to this episode; others, less romantic, believe the name to be no more than the Greek form of a long-forgotten Oriental name.

## Why They Are Preferred

YOUNG men prefer blondes to brunettes—because they eat less.

This (says the British United Press) is the testimony of Mr. Kavouras, manager of the restaurant at the North Western University at Chicago.

"I have watched for a long time, and have not the slightest hesitation in stating that blondes have smaller appetites than brunettes," said Mr. Kavouras. "Is it not significant that the young men who bring girls to the restaurant in five cases to one are accompanied by blondes?"

## Cookery Nook

### Lemon Cheese Curd.

IT is always useful to have some sort of filling on the larder shelf for open tarts and sponge sandwiches.

Try this recipe for lemon cheese curd; it will be welcomed by the family as a change from the everlasting jam.

Grate four lemon rinds, adding the juice of six. Beat up the yolks of six eggs and the whites of two—separately, of course. Mix these ingredients thoroughly together and pour into a jug. Stand the jug in a saucepan of boiling water over the fire. Stir the whole time, always one way only, until the curd is a thick paste.

When it is cold, seal up with airtight covers. It will keep at least a fortnight, and this quantity will fill a couple of dozen pastry cases.

### Quick Bread.

Four cups flour, 1 teaspoon salt, 6 teaspoons baking powder, 1 teaspoon sugar, 2 tablespoons "Anchor" milk powder, 1½ cups water, 2 tablespoons butter.

Method.—Sift flour, milk powder, salt, baking powder, and sugar together, work in butter with finger tips. Moisten the mixture to a soft dough with the water; mix until smooth. Turn into a greased bread pan, and let the mix stand in a warm place for 20 minutes to rise. Brush the top of the loaf with a little melted butter. Bake in a moderate oven one hour. Take out of pan and turn loaf on its side to cool.

### Peppermint Creams.

HOME-MADE sweets are a very acceptable Christmas present, or are, for that matter, exceedingly popular at any time of the year. People have an idea that sweet-making is a laborious and sticky business, but it need not be so.

The simple recipe for peppermint creams, if carefully followed, will produce most satisfactory results:

Whisk the white of two eggs to a froth—this must be stiff enough to bear the weight of a knife blade upon it.

Put to this one teaspoonful of essence of peppermint, then sift in icing sugar, sufficient to make the froth into a stiff paste.

Sugar a rolling pin and board well, roll out the paste and cut into rounds the size of a penny. Arrange these on a large dish or some other flat surface till they are dry, when they will be ready to pack—or eat!

## Movies in the Home

WITH the Kodascope—the Cine-Kodak Home Projector—you can have a complete Cinematograph entertainment in your own home. It is simplicity itself. Both lamp and motor are run from the ordinary household current, or, where necessary, a 6-volt accumulator may be used for the light, and the Kodascope cranked by hand. All the best of the regular cinema successes are available in the Kodascope Library. Home Movies are easy. . . .



—the 'Kodak' way!

Cine-Kodaks and Kodascopes may be purchased by a small instalment and small monthly payments. Full particulars from all Kodak Dealers.

Ask your Dealer for a demonstration.  
Modern 'Kodaks' from 30/- Brownies from 10/6.

New Catalogue Free  
OF ALL KODAK DEALERS

A27

TAKE

# Pulmonas

RELIEF BY INHALATION

FOR COUGHS AND COLDS



## Books.

## COME BY CHANCE

(Mrs. Alfred Sidgwick.)

A SIMPLE tale, this last one of the prolific writer, Mrs. Alfred Sidgwick, and innocuous withal, making pleasant reading for those who like their facts watered down and calculated to induce not too strenuous reflection.

Nan Sothern's mother left her husband for an unlawful lover, and Nan had to a large extent to fend for herself from an early age. Some doubt existed as to her paternity, so the injured and deserted spouse boarded out the baby with some rough but kind Cornish folk, who allowed her to run riot, wear disreputable attire, and speak in the broadest of dialects, to the horror of an elderly aunt who ran her to earth in her happy habitation beside the sea.

Then came a few years of school and an experience of grey and sordid lodgings in London, with a mother and daughter who aped gentility and starved the child entrusted to them. At sixteen Nan was a pupil teacher in an establishment where her poverty was derided and her doubtful parentage thrust upon her in the unkindly way of the world.

From this she runs off, and adventure, more interesting if less respectable, begins. She joins her mother, a lovely lady entirely untroubled by inconvenient conventions, and the mistress of an Italian count, of unlimited means and ungovernable temper. The three travel in ease and opulence on the Continent, and to Nan they are kind, until a day comes when the indolent, extravagant, imperturbable Lella, whose amiability nothing disturbs, provokes her protector to wrath by flagrant infidelity, well-merited vengeance descends upon her, and she and her daughter are left in the lurch.

Undismayed, the scorner of the moralities pursues her untrammelled way, finding consolation with enviable celerity. Meantime seventeen-year-old Nan has made a friend, a nice young man, to whom she is offered, with a dowry of £5000, by the social derelicts who are her sorry protectors. Julian Hay, however, refuses the bribe and the bride, goes his own way, but turns up at the end of the story in the dear old way, to offer his home and heart to the poor, pretty, stranded little English girl. Willingly she accepts, poor child, having come through great tribulation; and he is strong and kind, and finds it no difficult feat to win her young and eager love.

This is what used to be called a "nice little story," and one warranted to pass the time on the long train or bus journey home.—R.U.R.

## Liver Soup

BROWN two tablespoons of flour in three ounces of butter; then add a quarter of a pound of liver, chopped small, a well-beaten egg, a teacupful of fresh breadcrumbs and cook till the liver is tender.

Mash this with some pepper and salt and simmer in a quart of stock for about an hour.

## DEAREST:

At this dull, but dazzling period, Fashion crouches inert, and only simplest, crispest beach and holiday frocks flaunt. Paradoxically, in this off season, when everyone strives to be far from the vulgar, madding crowd, not to be smart is to be ultra-smart. Off to the purple west we go, or are going, or will go; and from early morn to dewy eve public thoroughfare is trodden only by aching feet of weary wayfarers who are slaves of the ledger, the pen, the typewriter, or that mysterious utility, yclept, an adding machine.

IN these days of mid-summer, torrid enough in temperature to hasten heat apoplexy in suspended judgment for sins of youth, good citizens all rejoice if they can relax at the "heavenly bay," illuminated in memorable sketch by Katherine Mansfield's magical jugglery with words; scale high hills at the back of beyond, or for a while dodge dull care in dim, sweet corner of lake-lit loveliness, amidst bush that densely broods, its greenness of isolation emphasised by strayed flickerings of questing sun and melodious, sudden note of passing bellbird.

Soon, from sound of many waters, shadow of great rocks in sunbaked land, moonlit splashing in hot springs of our desire, red of rata trees, and sprawling, plummy grace of clematis, triumphantly Eve will emerge, body burned a beautiful brown, eyes valiant; ready for the road again, and the lurking or caressing Fate that, hooded, awaits us in the New Year, which we go on hoping will be the best yet.

TO dwellers in a city of a monotony that hurts, amid days of tropical intensity, the second coming of the capable comedian known to an admiring world as Clem Dawe, was hailed with delight. Packed was the Opera House, rapturous the acclamation, gratifying and indiscriminating the enthusiasm displayed. Much of the

success of the revue depends upon the unflagging ability, good humour and vim of the very accomplished exponent of low comedy who heads the show; he having it all his own way with an enraptured audience, which was convulsed by his contortions, tolerant with his mannerisms, all admiration for enveloping top-coat and pathetically Chaplin-ish boots, and enraptured by his occasional engaging grin.

WITH some merrie maids and men I attended this lively lowbrow show, and found it good. A delightful artist is Dorothy White, bland and sophisticated on occasion, delicious as a Cockney charmer, versatile to a degree, and reminiscent on occasion of Beatrice Lillie, English comedienne of repute, seen and admired here on the films.

Suffering from trivialities of frivolous menage, quite poignantly amusing to your Annabel was "Unnecessary Remarks," a diverting skit on conversational banalities, admirably acted by Clem Dawe and Miss White. Short our sojourn in this lachrymose vale, and apt at times to relapse into dullness. Why render it more exasperating by infuriating platitudes?

IN Nature's fairest, gayest weather, who wants to be informed emphatically that it's a Nice Day? Hot and breathless we scramble into a tram. "You caught it, didn't you?" inquires one's neighbour, as hilariously he hangs himself on a contiguous strap. "Come to have your hair cut?" intelligently observes a chance acquaintance encountered at pet shingler's. "On the contrary, to commit a murder!" would be a satisfying retort were it not that, if made to a literal Scot, it might land one in the kind but firm grip of Mr. Page, S.M. The world is so full of a number of things, why crowd it any more with such social amenities?

AS a theme for his kinema play, Mr. Anthony Asquith has selected the Underground Railway, that microcosm of love and laughter, tears and tragedy,

with its patient and persistent band of pilgrims who, without haste or pause, incessantly travel to and fro. Having regard to scope of his medium, Mr. Asquith has treated his subject in necessarily restricted fashion, but has achieved dramatic interest and the presentation of poignant emotion. As was to be expected, the film is British made, and its elucidation entrusted to a singularly happily selected combination of artists.

MR. HECTOR BOLITHO is scoring a success, all off his own clever bat, by the sweat of his literary brow. Which is not an easy thing to do in an unduly competitive world. In "Thistledown and Thunder" he ranges from rough-and-tumble clearing in backblocks of New Zealand to the African veldt; and, taking us along with him in breezy, conversational fashion, races through night-clubs in New York shows us his flat in Johannesburg, blows in at a Canadian cafeteria breakfast, and comments on the Grantchester of Rupert Brooke. Very light, very bright free-lancing, with much of England, the Thames, May Week, the Cam, and a few reflections on men and matters of the hour, interesting if superficial. Thus our fellow-countrymen on America:—

"The Englishman in Italy is just as ludicrous and pompous as the American in New Zealand. They must be met and judged in their own habitat. The Americans are materially generous and socially friendly: two virtues which make me feel that there is a good deal of priggishness in the Englishman's contempt of American *gaucherie*. Their hospitality is overwhelming. They invite ten people to meet you at lunch and then apologise for not arranging a party. The idea that any visitor should eat a humble chop, alone in an hotel, is nausea to them, and their entertainment is so lavish that one can never hope to return it."

All very amusing and profuse, but to some of us the chop and hotel appear preferable.—Your

ANNABEL LEE.

## Nut Bread

2 cups whole wheat flour, 4 teaspoons baking powder, ¼ cup treacle (molasses), 1 cup of nuts (chopped), 5 tablespoons dripping (shortening), ½ cup of sugar, 1 teaspoon salt, 2 eggs (beaten up), 1 small cup of water, 1 tablespoon "Anchor" milk powder.

Method.—Mix and sift together all the dry ingredients. Rub the dripping into the dry ingredients. Add the water and egg, and mix well. Add the nuts and beat thoroughly. Pour into a greased pan. Let it stand for 5 minutes, then bake for 45 minutes in a moderate oven (350 degrees).

COLOURED ribbons weighted with crystal drops make a striking finish to lampshades of coloured silk. The shades are tall and rather narrow, with the ribbons hanging from the edge like the strands of a maypole, before they are plaited,

**Anchor Skim Milk Powder**  
FROM ALL GROCERS.

Send for Free Recipe Booklet to "Anchor," Box 844, Auckland.

# Next Week's Features

## Notes from 1YA

**THE** two Tauranga artists, Madame Cora Melvin and Mr. Norman Day, who appeared at 1YA in June last year, will be welcomed again on Sunday evening, when they will contribute to the after-church concert.

**I**N keeping with the holiday spirit of Anniversary Day, a popular programme has been arranged for Tuesday evening. Madame Cora Melvin and Mr. Norman Day will be heard in a variety of duets and soprano and baritone numbers, while the well-known Auckland vocalist, Mr. Ernest Snell, will contribute several solos, including the popular "Saltarella" from the light opera "La Mascotte." Those prime favourites, "The Bohemian Duo," will again entertain listeners in harmony popular numbers, accompanied by guitar and ukelele, while Miss Doris Messer, who has not been heard from 1YA for some considerable time, will make a welcome reappearance in humorous elocutionary selections. On the instrumental side of the programme will be Mr. Cyril Towsey, pianist, and the Studio Orchestra. Orchestral music will also be relayed from the Majestic Theatre. Continuing in his talks on the "Maori," Mr. A. B. Chappell, M.A., has chosen for his subject "His Clothing."

**THE** Salvation Army Congress Hall Band will make its second appearance at 1YA on Wednesday evening, when Conductor Goffin will present another of his popular programmes. There will also be a cornet solo by Bandsman N. Goffin, "Normania." An entertaining vocal programme will be presented by the Olympians. The concerted numbers will include the old favourites "John Peel" and "Cuddle Doon." Miss Dorothy Youd will sing "Two Little Curly Headed Coons" and "Wings." Miss M. Williamson, contralto, will contribute "Someone Singing in My Garden" and "Salaam." Mr. Lambert Harvey will sing "She is Far from the Land" and "Sanctuary." Mr. G. Colledge's baritone solos will be "From Oberon in Fairyland" and "Arise, O Sun."

**SOME** interesting vocal trios will be sung on Thursday evening, the vocalists being Messrs. H. Richards, A. Ripley, and E. Thomas. These numbers will be "Lovely Night," "Little Tommy," and "Sunset." Solo numbers will be "My Heart's Desire," "Glorious Devon," and "Evening Song."

**QUARTET** numbers to be sung by the Clarions on Friday evening will be "Birthdays" and "Love's Old Sweet Song." The members of the party will also sing solos and duets, all being of a popular nature. Also on the programme will be the Studio Orchestra, whose selections will be of special interest, taken from the works of Grieg, Rossini, Moskowski, and German. Elocutionary numbers will be given by Mr. Tom Harris.

**BOOK** lovers will be pleased to observe that on Friday evening there will be a talk on one of their favourite authors, their beloved "R.L.S.," as they best know Robert Louis Stevenson. In his all too short life he enriched the literature of the world for people of all ages—childhood, youth, and old age—in verse and prose. His "Treasure Island" is one of the most famous of boys' books.

**THE** operatic number, "One Fine Day," to be sung by Miss Alma McGruer, is a sad-hearted song. Un bel di vedremo ("Madam Butterfly"), Puccini, Butterfly, deserted by her lover Pinkerton, sings of her steadfast faith that he will one day return. She tells of how she will go to meet him, hiding at first, and then springing out to greet him joyously.

**ON** Saturday evening the vocal portion of the musical programme will be provided by Mrs. Daisy Basham and Mr. Arthur Briggs, who have previously appeared at 1YA and earned the hearty approval of all listeners. They will again present a very diversified programme of solos and duets. Humorous elocutionary items will be given by Mr. F. W. Barker, "Mrs. Brown at the Play" and "Orange Blossoms."

**ON** Thursday, 31st, Mr. J. F. Montague will present the Auckland Comedy Players in two snappy one-act comedies, "Disgrace" and "They Write a Play." The first of these is based on one of the quaintest ideas imaginable—the pride of two eminently respectable parents in their son's profession, and he is a burglar who works in "the best circles," and who never descends to anything common or "low." Both parents are extremely worried when the play opens, because their "dear boy" is very late in coming home that evening. The climax is most unexpected and most diverting. The second play, "They Write a Play," is a two-character sketch full of bright and entertaining dialogue, and should appeal strongly to listeners-in.

**On** the elocutionary side, Mr. J. F. Montague, whose work is always of a high standard, will introduce an entirely new and striking number, "The Death of a Little Child," a piece full of pathos and beauty; and another new selection, "The Three Kisses," and also the great Shakespearean number, "Henry V at Agincourt" (the "Crispin" speech).

## Notes from 2YA

**OPENING** with the overture from "The Barber of Seville," the studio orchestra will present a very interesting programme on Monday evening, these selections being from the works of Rubenstein, Brahms, and Romberg, the latter being the composer of the music of "The Student Prince." The vocalists for a varied programme of

classical items will be Miss Jeanette Briggs, Miss Monica Malfroy, Mr. Roy Hill and Mr. John Prouse. Mr. Roy Hill, one of Wellington's leading tenors and one who specialises in classical songs, will sing, with 'cello obligato, Denza's "Had You But Known." The 'cello obligato will be played by Miss Lilla Hill, a sister of Mr. Hill and a young 'cello player of promise. Mr. Norman Aitken, the well-known elocutionist, will make a welcome reappearance on Monday evening. His items will be "By the Yukon Trail," by Milton Hayes, and "Charm," a humorous number, the "Philosophy of a Widow." Mr. Aitken's voice, allied to his artistic interpretation, always makes his items very popular with listeners of all tastes and shades of opinion.

**OUTSTANDING** amongst the orchestral items will be a concerto for piano and orchestra (by Schutt), which will bring under the notice of listeners for the first time a pianist of outstanding ability in the person of Mr. M. Dixon. Mr. Dixon is the soloist in this number and he will have the assistance of the 2YA orchestra under the baton of Mr. George Ellwood.

**TUESDAY** afternoon's programme will be provided by Messrs. F. J. Pinny Ltd., the entertainment consisting of player-piano selections, gramophone items, as well as vocal numbers by Mrs. J. E. Booth and Mr. H. E. Wilson. Mr. G. Austin Blackie, tenor, will be singing again for 2YA on Tuesday evening. His numbers will be "Laurette" and "I Hear You Calling me." Mr. Austin Blackie is one of New Zealand's finest tenors, and his first appearance at 2YA was acclaimed by all listeners. Other vocalists for Tuesday evening will be Mrs. H. Jackson, singer of popular songs, and Mr. F. Stanley (bass). There will also be Mr. "Rolly" Robertson in songs at the piano, and Palmer's Hawaiian Trio will play Hawaiian music. The Studio Orchestra will present a programme of popular items.

**MISS ETHEL FRIEND**, the Sydney contralto, will be singing again at 2YA on Thursday evening. She will treat listeners to a delightful rendition of "Forgetfulness," the negro spiritual "Deep River," Schubert's "To Music," and Windsor's "Three." The male voices for the evening will be those of the Lyric Four. Quartets will be "Two Roses," "Little Tommy," and "Kentucky Lullaby." A duet will also be sung. The instrumentalists engaged for the evening are the band of the First Battalion, Wellington Regiment, whose opening overture will be "Martial Moments."

**"BOOTS,"** a Kipling poem descriptive of the interminable marching which the infantry had to do in the South African War, will be one of the pieces to be given by Mr. J. S. Webb on Thursday evening. He will also recite how "The Sentimental Bloke Saw the Play."

**A ONE-ACT** operetta by Balfe, the Dublin-born composer who achieved fame when he wrote "The Bohemian Girl," with its never-failing melodic charm, is to be presented on Friday evening. The operetta is "The Sleeping Queen." In texture this little work is just as tuneful as the "Bohemian Girl," but somewhat lighter in character. It will occupy the first hour of the concert programme. The singers will be Miss Jeanette Briggs, Miss Ngaire Coster, Mr. W. Roy Hill, and Mr. J. M. Caldwell. The dialogue of the piece will be spoken by Misses Effie Brice, Ngaire Coster, Mr. Peter Dorian, and Mr. Cedric Gardiner. The studio orchestra will co-operate in the production of the operetta and in the concluding portion of the evening's programme it will also play Flotow's "Stradella," Saint Saens's "Ascanio Ballet Music," and selections from "The Mikado."

**ON** Saturday a bright and varied programme will be presented. The vocal section will be in the hands of the popular Melodie Four, whose quartet items will include "The Old Folks Medley," a special arrangement by Frank Crowther of "Get Out and Get Under the Moon," and "Banjos Down in Dixie." Tenor solos by Mr. F. Bryant will be "An Evening Song" by Blumenthal and "A Song and A Dream," by Cadman.

**MR. R. S. ALLWRIGHT** will be heard in a baritone solo, "Fleur-ette;" Mr. W. W. Marshall (bass) will sing "The Bandolero." Novelty items will be given by "Vermont," the well-known bird and animal imitator, and Mr. Jack Wilkinson will provide the humorous section of the programme. The orchestra will play Meyerbeer's well-known overture in the form of a March, Raff's "Cavatina," and Le-mare's famous "Andantino," two novelty items, "A musical Jig Saw" and "The Mouse and the Block." The musical comedy selection "Stop Flirting" will also be a feature of the orchestral programme.

**ON** Sunday evening, at the conclusion of the church service, a studio concert of selected gramophone items interspersed with vocal items by local artists will be presented. The soloists on this occasion will be Miss Rita Arnold, Mr. Ray Kemp, and Mr. Charles Edwards.

## Notes from 3YA

**MR. and Mrs. Leslie Scrimshaw**, soprano and tenor respectively, two popular performers in solo and duet items last year, will appear again on Monday evening. The duet will be the well-known favourite, "A Paradise for Two" (from "Maid of the Mountains"). Mrs. Bingham Puddey, always a popular artist, will sing "Invitation," "The Valley of Laughter" and "I Don't Know." The records this evening will include two songs by Peter Dawson, "The Floral Dance"

and "The Admiral's Broom." Mr. Jock Lockhart, well-known for his Lauder turns, will give an entertainment which will include much of his own original composition.

The instrumental music on Monday evening will be provided by the Studio Trio and the Christchurch Municipal Band. The trio's numbers will be Gounod's "Ballet Music from 'Faust,'" "Ave Marie" and "Bacchanal" (from "The Seasons," by Glazounoff). The band will present a programme of much variety.

**THE** Dulcet Duo—Miss Nellie Lowe and T. G. Rogers—are contributing to a miscellaneous programme on Wednesday evening. They will sing the fine operatic duet, "Home to Our Mountains" (from "Il Trovatore"). The solo numbers will include "A Spirit Flower," by Miss Lowe, and "The Sailor's Grave," to be sung by Mr. Rogers. Miss Doris Irvine (soprano) is also singing this evening, her numbers being "O Mio Fernando" (by Donizetti) and Leoncavallo's "Tis the Day." Another vocalist will be Mr. W. H. Inkster, a fine baritone. He will sing "Invictus" and "The Mighty Deep."

**THE** astronomical talk on Wednesday evening by the Rev. B. Dudley, F.R.A.S., will be about the "Flight of the Solar System." Mr. Dudley will also recite how "The Reverend Gent Gets Tricked."

An excellent programme will be presented by the Studio Trio on Wednesday evening.

**A** PROGRAMME of melodies by modern composers will be given on Thursday evening by Miss Frances Hamerton's Melodious Four. The concerted numbers will be taken from the works of Bantock, Davies, Rowley and Percival. Included among these will be some more of the popular "Nursery Rhymes" by Sir Walford Davies. Miss Hamerton will sing two songs by Besley and Dessaner's gipsy song "Make Haste," Miss Belle Renaut will sing Finden's "Song of the Bride," Jensen's "O Let Thy Tears," and Somervell's "Loveliest of Trees." Mr. Russell Sumner is singing Quilter's setting of the Shakespearean song "Hey, Ho! The Wind and the Rain," also Carse's "Sandalled Feet." The well-known "Eleanore," by Coleridge Taylor, and two of the always popular Hebridean songs, will be sung by Mr. T. D. Williams. Elocutionary numbers will be given by Miss Maiona Jones. Instrumental music will be supplied by the Bohemian Quintet.

**THE** vocalists who will contribute to the musical portion of the miscellaneous programme on Friday evening will be the Valencia quartet. The concerted numbers will be the "Gipsy Chorus," from Balfe's "Bohemian Girl," and "The Shepherds" (by Percival). Duets will also be sung. Miss Anita Graham's solo numbers will be "Waiata Maori," "Boat Song," and "Big Lady Moon." Miss Renetta Rings's two songs will be "Anytime's Kissing Time" (from "Chu Chin Chow"), and the "Indian Love Call" (from "Rose Marie"). Mr. W. Bradshaw will sing two old favourites, "Til Sing Thee Songs of Araby," and "Tom Bowling." "Bjorn, The Viking," and "The Admiral's Broom" will be sung by Mr. F. A. Millar, bass.

**TWO** entertaining items can be expected from Mr. Hiram Dunford on Friday evening. The first will be a talk on manners, and the other will be a sample of the work of the American humourist, Max Adeler, this piece being "The Swallowed Frog."

**A** FINE after-church concert has been arranged for Sunday evening. The vocalists will be Mrs. D. W. Stalard and Mr. and Mrs. T. G. Rogers. Their items will be augmented by special gramophone records.

## Notes from 4YA

**FOLLOWING** the relay of the service from St. Pauls Cathedral, when the preacher will be the Rev. Canon Nevill, the St. Kilda's Band's concert from the seaside rotunda will be broadcast.

**DURING** the next six weeks the St. Kilda Band, while training for and attending the band contest at Wanganui, will not be heard on Tuesday evenings. Instead, the City Salvation Army Band, under Bandmaster Millard, will fill the breach. This band is an excellent combination, whose performances from 4YA in 1927 were always a feature. A splendid programme has been arranged for Tuesday evening next, and an outstanding number will be a selection of New Zealand melodies arranged by Gore. Several well-known artists have also been engaged to assist the band, including Miss Netta Wilkie (contralto), Mr. R. A. Mitchell (tenor), and Mr. E. G. Bond (bass). Mr. Lester Moller will entertain with elocutionary numbers, and Rev. W. B. Scott will deliver the last of his series of talks on "Early New Zealand."

**HERMANN LOHR'S** delightful song cycle, "The Little Sunbonnet" will be presented by the 4YA Harmonists on Wednesday evening, and this will be supported by an interesting programme of popular music. The 4YA Broadcasting Trio will play Schubert's "Marche Militaire," and each member of the trio will contribute solo instrumental works. Elocutionary numbers will be given by Miss Madge Yates.

**THE** early portion of Friday's studio concert will consist of classical music, the vocal numbers being from the pens of Gounod, Verdi, Massenet, and Schubert, whose works will be represented by five numbers. The soloists will be Miss Molly Vickers (mezzo-soprano), Miss Irene Hornblow, L.R.A.M. (contralto), and Mr. Arthur Lungley (baritone). Miss Aileen Young will play on the piano "The First Movement" from Beethoven's Opus 27, No. 2.

**A** TYPICAL vaudeville programme will be presented on Saturday evening, in which popular song hits and humorous numbers will predominate. Miss Mona Melville, Miss Betty Roberts, and Mr. Norman Scurr will sing light songs, while Mr. J. Paterson will entertain with humorous Scotch songs and patter. Amusing sketches will be presented by Miss Sheila Neilson and Mr. J. B. McConnell.

## Some Descriptive Notes

**IN** the old slave days in America the thoughts of the negro often turned for consolation to his hopes of joy in a better world. The fervour and happy confidence of a simple-minded people is shown in the "spiritual" we are to hear from Miss Ethel Friend at 2YA on Thursday evening. Of this feeling "Deep River" is typical:

"Deep river, my home is over Jordan,  
Deep river, Lord, I want to cross over  
into camp-ground.  
Oh, chillun, oh, don't you want to go  
to that gospel feast,  
That promised land, that land where  
all is peace?"

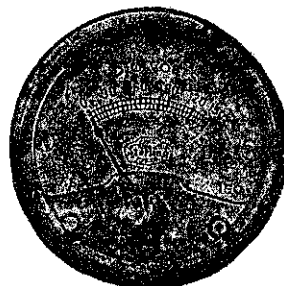
Walk into Heaven and take my seat,  
And cast my crown at Jesus' feet!"

**INTERESTING** circumstances surround the history of the overture to the "Barber of Seville," which is to be played by 2YA Orchestra on Monday evening. Rossini took only a little over a fortnight to compose "The Barber," overture and all. The overture, after being played on the opening night, was lost, it is said, through a copyist's negligence, and the music now played as a prelude to the opera belongs to another opera, "Elizabeth," brought out the year before "The Barber." Most of the music in the overture fits the light and sparkling work very well. There is first a broad, dignified introduction, and then a gay, quick movement.

**FEW** French composers of last century attained speedier or more consistent success than Massenet, some of whose works will be broadcast next week. He was a brilliant student, and of his score or more of operas the greater part enjoyed immense popularity. At the age of thirty-four he received the decoration of the Legion of Honour, and two years later he became a member of the Academy of Fine Arts—the youngest member ever elected. Not many of his operas have survived in England, but "Manon" was for long a great favourite at Covent Garden. Selections from this opera will be played by the Auckland Trio on Saturday, February 2. On Tuesday, January 29, the suite "Picturesque Scenes" will be played by the Studio Orchestra. Massenet's famous "Elegie" will be sung on Sunday evening, February 3, at 2YA by Miss Rita Arnold, contralto.

**GLAZOUNOV**, who wrote the suite "The Seasons," a selection from which will be played by the 3YA Studio Trio on Monday evening, January 28, is probably the most distinguished living Russian composer who does not work on very advanced "modernist" lines. He is a master of orchestral effect, and in his ballets and other light pieces he has produced music that follows very agreeably, yet with distinct individuality of its own, in the Tchaikowsky tradition. "The Seasons," a suite of orchestral pieces, was originally written for a ballet. There are the theme and variations belonging to winter, the variations being respectively entitled "hoar-frost, ice, hail and snow. Then comes spring; summer has three sections—Waltz of Poppies and Cornflowers, Barcarolle and variations; lastly, autumn has a "Bacchanal and a little slow movement."

**IN** "Haere Tonu," to be sung by Mr. Leslie Scrimshaw on Monday evening, we have a Maori war dance set to music. In this war song, the composer, Mr. R. A. Horne, General Manager of the "Bristol," Christchurch, has excelled himself. There have been many attempts to translate the distinctive and weird chants of the Maori into accepted musical notation, and few of these have succeeded. Mr. Alfred Hill, a musician of much power and insight, is responsible for two very fine Maori songs in "Tangi" and "Waiata Poi," the former probably being the best yet written, but in the majority of cases the mediocrity which is akin to failure has marked composers' efforts. But Mr. Horne, in the chorus of his song, has caught the true spirit and atmosphere of the haka, and the very fine adjuration to gird and charge has been musically interpreted with surprising fidelity to the original idea of the savage music of the Native race. The conclusion of the chorus, which embodies the great war cry, "Ake, Ake, Kia Kaha," is particularly effective, and the song ends on a note that suddenly drops an octave, conveying the final grunt of the Maori cry admirably. Mr. Horne has written a simple air with a swinging lilt that makes it "go" from beginning to end, and the accompaniment has been arranged with due regard to the value of chordal passages. The words are by Mr. E. D. Hoben, a brother of Mr. Francis Hoben, the well-known Christchurch musical critic, and tell, in neat verse, the story of how the Maori's ancestors fought of old.



Just Landed :

—STERLING—

## PANEL TYPE METERS

R640 Voltmeter 0-6	19/-
R344 Voltmeter 0-120	17/6
R646 Voltmeter 0-150	22/6
R644 Voltmeter AC, 0-15	30/-
R1647 Voltmeter 0-7½ and 0-150 (as illustrated)	35/-
R264-0-30 Milliampere	20/-
R1626 0-50 Milliampere	25/-

Latest design, Highly efficient, neat and compact, accurate readings.

Send for Price List.

**L. B. Scott Ltd.**

Manchester and Worcester Sts.,  
CHRISTCHURCH.

Pocket 0-50 voltmeters, high resistance, dead beat. A really high grade meter, each 7/6.

Postage on above meters 1/- extra.

# Full Programmes for Next

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

## Sunday, January 27

### 1YA, AUCKLAND (333 METRES)—SUNDAY, JANUARY 27.

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

4.0: Literary selection by the announcer.

4.8: Further selected items.

4.30: Close down.

6.0: Children's song service conducted by Uncle Leo.

6.55: Relay of evening service from Beresford Street Congregational Church  
Preacher, Rev. Lionel B. Fletcher; choirmaster, Mr. W. Gemmell.

8.30: Orchestral—Columbia Symphony Orchestra, "Wedding March" from  
"Midsummer Night's Dream" (Mendelssohn) (Columbia Record  
02663).

8.34: Vocal duet—Miss Cora Melvin and Mr. Norman Day, "One Little Hour"  
(Sharpe).

8.38: Baritone solo—Mr. Norman Day, "Little Mary Fawcett" (Wibby).

8.42: Pianoforte concerto—Ignaz Friedman, "Concerto in A Minor" (second  
and third movements) (Grieg) (Columbia Records 02704-5).

8.57: Soprano solos—Miss Cora Melvin, (a) "Solweig's Song" (Grieg), (b)  
"Song of the Nightingale" (Phillips).

9.5: 'Cello solo—W. H. Squire, "The Swan" (Saint-Saens) (Columbia Record  
04179).

9.9: Baritone solo—Mr. Norman Day, "The Farmer's Pride" (Russell).

9.14: Orchestral—Berlin State Opera Orchestra, "The Magic Flute" (Mozart)  
(H.M.V. Record E464).

9.22—Vocal duet—Miss Cora Melvin and Mr. Norman Day, "Farewell to Sum-  
mer" (Johnson).

9.26: God Save the King.

### 2YA, WELLINGTON (420 METRES)—SUNDAY, JANUARY 27.

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

3.1: Selected gramophone items.

4.30: Close down.

6.0: Children's song service conducted by Uncle George, assisted by Hataitai  
Methodist Sunday School Choir.

## It's Wonderful!

YOU GET ALL YOU WANT  
WITH THE NEW

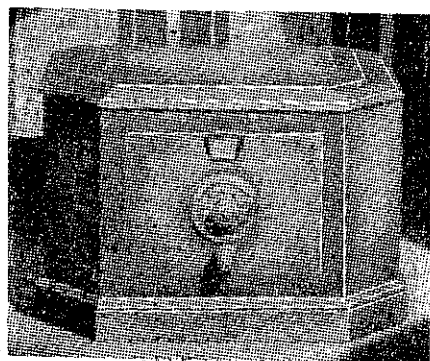
## All-Electric 6-valve Splitdorf RADIO RECEIVER

(Canadian Made).

NO BATTERIES  
NO TROUBLE

Just plug straight into  
your electric light soc-  
ket and get

Perfect  
Reception.



**BOND & BOND LTD., Auckland.**

N.Z. Agents.

7.0: Relay of evening service of St. Thomas's Anglican Church, Newtown.  
Preacher, Rev. Theodore Cribb, B.A. Organist and choirmaster,  
Mr. W. A. Gatheridge. Soloist, Mr. W. Goudie.

8.15 (approx.): Overture—Berlin State Opera Orchestra, "The Beautiful  
Galathea" (Suppe) (H.M.V. Record C1527).

Soprano solos—Mrs. E. Meban, (a) "Mellisande in the Wood" (Goetz);  
(b) "Obstination" (Fontenailles).

Pianoforte solo Alfred Cortot, "Rigoletto Paraphrase" (Verdi-Liszt).

Bass solos—Mr. J. M. Caldwell, (a) "Hear My Prayer" (Dvorak); (b)  
"Sing Ye a Joyful Song" (Dvorak).

Organ solo—Dr. Harold Darks, "Fantasia" (Mozart) (H.M.V. Record  
C1448).

Tenor solo—Mr. J. Fordie, "If With All Your Hearts" (Mendelssohn).

Overture—Grand Symphony Orchestra, "Fra Diavolo" (Auber) (Parlo-  
phone Record A4022).

Soprano solos—Mrs. E. Meban, (a) "Serenata" (Toselli); (b) "From  
the Land of the Sky Blue Water" (Cadman).

String quartet—Virtuoso String Quartet, (a) "Tambourin" (Gossee, arr.  
Sharpe); (b) "Molly on the Shore" (Grainger) (H.M.V. Record  
B2589).

Bass solo—Mr. J. M. Caldwell, "The Lord is My Light" (Alhltzen).

Instrumental octet—J. H. Squire Celeste Octet, "Angel's Serenade"  
(Braga) (Columbia Record 9116).

Contralto solos—Essie Ackland, (a) "Down Here" (Brahe); (b) "O  
That We Two Were Maying" (Nevin) (H.M.V. Record B2740).

Violin solo—Tosy Spiwakowsky, "Turkish March" (Beethoven) (Parlo-  
phone Record A2561).

Tenor solo—Mr. J. Fordie, "Good-Bye" (Tosti).

Instrumental octet—J. H. Squire Celeste Octet, "Serenade" (Titl) (Co-  
lumbia Record 9116).

Chorus—Victor Mixed Chorus, "Anvil Chorus" from "Il Trovatore"  
(Verdi) (H.M.V. Record B489).

Band selections—Band of H.M. Coldstream Guards, (a) "Air de Ballet";  
(b) "Callirhoe"; (c) "Pas de Cymbals" (Chaminade) (H.M.V. Re-  
cord C1501).

### 3YA, CHRISTCHURCH (306 METRES)—SUNDAY, JANUARY 27.

3 p.m.: Afternoon session—Gramophone recital.

4.30: Close down.

5.30: Children's song service conducted by Chuckle, assisted by children from  
the Presbyterian Sunday School.

6.15: Hymn chimes.

6.30: Gramophone recital.

7.0: Relay of evening service from St. Paul's Presbyterian Church (Preacher,  
Rev. W. Bower Black, L.L.B.; organist, Mr. Norman Williams).

8.15 (approx.): Studio concert.  
Orchestral—Philadelphia Symphony Orchestra, "Symphony in D Minor"  
(first movement) (Franck) (H.M.V. Records 1404-5).

8.30: Contralto solo—Miss Nellie Lowe, "Thanksgiving" (Cowan).

8.34: Tenor recitative and aria—Mr. T. G. Rogers, (a) "Deeper and Deeper  
Still"; (b) "Waft Her, Angels" (Handel).

8.39: Violin solo—Fritz Kreisler, "Caprice Viennois" (Kreisler) (H.M.V. Re-  
cord DB1091).

8.43: Contralto and tenor duet—The Dulcet Duo, "Glory to Thee, My God, This  
Night" (Gounod).

8.48: Duet in Italian—Florence Austral and Browning Mummery, "Home to  
Our Mountains" (Verdi) (H.M.V. Record D1302).

9.2: Contralto solo—Miss Nellie Lowe, "In the Chimney Corner" (Cowan).

9.6: Violin solo—Fritz Kreisler, "Humoresque," Op. 101, No. 7 (Dvorak)  
(H.M.V. Record DB1091).

9.10: Tenor solo—Mr. T. G. Rogers, "Father of Light" (Adams).

9.14: Tenor solo with violin accompaniment—John McCormick, "Softly Thru'  
the Night is Calling" (Schubert) (H.M.V. Record DA458).

Gramophone recital until 9.30 p.m.

9.30: God Save the King.

### 4YA, DUNEDIN (463 METRES)—SUNDAY, JANUARY 27.

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

6.30: Relay of evening service from St. Paul's Cathedral (Preacher, Rev. Canon  
Nevill; organist, Mr. E. Heywood, F.R.C.O.).

8.0: Relay from St. Kilda (weather permitting) of concert by the St. Kilda  
Band.

9.15: God Save the King.

## Monday, January 28

### 1YA, AUCKLAND (333 METRES)—MONDAY, JANUARY 28.

SILENT DAY.



# Week-all Stations-to Feb. 3

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

## 2YA, WELLINGTON (420 METRES)—MONDAY, JANUARY 28.

- 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 Jeff and Aunt Gwen.  
 7.0: News session, market reports and sports results.  
 7.40: Lecturette—Mr. H. C. South, "Books—Grave and Gay."  
 8.0: Chimes of the G.P.O. clock.  
 8.1: Overture—Orchestra, "Barber of Seville" (Rossini).  
 8.11: Lyric soprano—Miss Jeanette Briggs, (a) "Betrothal" (Liszt); (b) "Song to Spring" (Wolf).  
 8.18: Concerto for piano and orchestra—Mr. Mat. Dixon, "Concerto in F Minor" (Ed. Schutt).  
 8.26: Baritone solos—Mr. John Prouse, (a) "Eldorado" (Mallinson); (b) "Eventide" (Mallinson).  
 8.32: Orchestral—Orchestra, "Serenade" Op. 16, No. 3 (Rubinstein).  
 Flute solo with orchestral accompaniment, Signor A. P. Truda, "Fairly Tarapatapoum" (Foulds).  
 8.40: Mezzo-soprano solo—Miss Monica Malfroy, "A Memory" (Thomas).  
 8.44: Recital—Mr. Norman Aitken, "By the Yukon Trail" (Hayes).  
 8.50: Violin solo—Renee Chemet, "Serenade" (Pierne) (H.M.V. Record DA955).  
 8.54: Tenor solo with 'cello obligato—Mr. Roy Hill ('cellist, Miss Lilla Hill), "Had You but Known" (Denza).  
 8.58: Orchestral—Repeat number.  
 9.6: Weather forecast.  
 9.8: Lyric soprano—Miss Jeanette Briggs, (a) "Slumber Song of the Madonna" (Head); (b) "Lilacs" (Rachmaninoff).  
 9.15: 'Cello solo—Pablo Casals, "O Star of Eve" (from "Tannhauser") (Wagner) (H.M.V. Record DB1012).  
 9.19: Baritone solos—Mr. John Prouse, (a) "Leaving, Yet Loving" (Marzials); (b) "Ho, Jolly Jenkin" (Sullivan).  
 9.26: Suite—Orchestra, "Brahmsiana" (Brahms-Langey).  
 9.36: Humour—Mr. Norman Aitken, "Charm" (The philosophy of a widow) (Backcomb).  
 9.42: Mezzo-soprano solos—Miss Monica Malfroy, (a) "Cradle Song" (Kreisler); (b) "Off to Market, Johnny" (Humphries).  
 9.48: Tenor solos—Mr. Roy Hill, (a) "Five Eyes" (Gibbs); (b) "The Cloths of Heaven" (Dunhill); (c) "Windy Nights" (Villiers Stanford).  
 9.52: Choral with orchestra—Pertile, Ferraris, Righetti and Baromeo with chorus—"La Rivedra Nell Estasi" (Verdi) (Parlophone Record B20007).  
 10.0: Musical comedy selection—Orchestra, "The Student Prince" (Romberg).  
 10.10: Close down.

## 3YA, CHRISTCHURCH (306 METRES)—MONDAY, JANUARY 28.

- 3 p.m.: Afternoon session—Selected gramophone items.  
 4.25: Sporting results.  
 4.30: Close down.  
 6.0: Children's hour.  
 7.15: News session.  
 7.30: Talk—Mr. Charles Buckett, "The Value of Exercise."  
 8.0: Chimes.  
 Band programme by the Christchurch Municipal Band (Mr. A. Schnack, conductor) and assisting 3YA artists.  
 8.1: March—The Band, "Action Front" (Blackenburg).  
 8.7: Soprano solo—Mrs. Leslie Scrimshaw, "A Heart that's Free" (Robyn).  
 8.11: Bass-baritone solo—Peter Dawson, "The Floral Dance" (H.M.V. Record C1313) (Moss).  
 8.15: Humorous song to own accompaniment, Mr. Jock Lockhart, "Bits and Pieces" (MS).  
 8.20: Selection—The Band, "Melodious Gems" (Rimmer).  
 8.32: Mezzo-contralto solos—Mrs. N. Bingham Puddey, (a) "Invitation" (Barry) (b) "The Valley of Laughter" (Sanderson).  
 8.38: Tenor solo—Mr. Leslie Scrimshaw, "Haere Tonu" (Horn).  
 8.42: Instrumental trio—Christchurch Broadcasting Trio, "Ballet Music from Faust" (Gouod).  
 8.50: Bass-baritone solo—Peter Dawson, "The Admiral's Yarn" (H.M.V. Record B2661) (Rubens).  
 8.54: Hymn—The Band, "Sandon" (Dykes).  
 9.0: Weather forecast.  
 9.2: Overture—Light Symphony Orchestra, "At Dawning" (H.M.V. Record B2629).  
 9.6: Soprano solo—Mrs. Leslie Scrimshaw, "Golden Dancing Days" (Con Clarke).  
 9.10: Orchestral selection—Salon Orchestra, "Aloha Sunset Land" (H.M.V. Record B2581) (Hawelo).  
 9.14: Tenor solo—Mr. Leslie Scrimshaw, "A Little Irish Girl" (Lohr).  
 9.18: Selection—The Band, "Tancredi" (Rossini).

- 9.30: Mezzo-contralto solo—Mrs. N. Bingham Puddey, "I Didn't Know" (Trotter).  
 9.34: Instrumental trios—Christchurch Broadcasting Trio, (a) "Ave Maria" (Bach-Gounod); (b) "Bacchus" (from "The Seasons") (Glazounof).  
 9.42: Soprano and tenor duet—Mr. and Mrs. Leslie Scrimshaw, "A Paradise for Two" (from "Maid of the Mountains") (Tate).  
 9.46: Humorous songs and stories—Mr. Jock Lockhart, (a) "Indianapolis" (Weston Lee); (b) "Heather Dew" (MS) (own accompaniment).  
 9.55: Fantasia—The Band, "Lady Bird" (Robinson).  
 March—The Band, "Merry Monarch" (Blackenburg).  
 God Save the King.

## 4YA, DUNEDIN, 463 METRES)—MONDAY, JANUARY 28.

SILENT DAY.

## Tuesday, January 29

## 1YA, AUCKLAND (333 METRES)—TUESDAY, JANUARY 29.

- 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 Uncle Pat.  
 7.15: News and market reports—book review.  
 8.0: Chimes.  
 8.1: Overture—Orchestra, "Pique Dame" (Suppe).  
 8.11: Baritone solo—Mr. Arthur Fryer, "Oh No, John!" (Arrgd. Elgar).  
 8.15: Baritone with male quartet—Jno. Goss and Cathedral Male Quartet, (a) "Blow the Man Down" (Arrgd. Terry); (b) "Tom's Gone to Hilo" (Arrgd. Terry) (H.M.V. record B2698).  
 8.19: Soprano solo—Miss Beryl Adams, "Pipes of Pan" (Monckton).  
 8.23: Pianoforte solos—Mr. Cyril Towsey, (a) "Duetto" (Mendelssohn); (b) "The Bee's Wedding" (Mendelssohn).  
 8.28: Relay of orchestral entr'acte from Majestic Theatre Orchestra under the conductorship of Mr. J. Whiteford Waugh.  
 8.33: Talk—Mr. A. B. Chappell, M.A., "The Maori—His Clothing."  
 8.48: Musical comedy selection—Orchestra, "Cabaret Girl" (Kern).  
 8.59: Weather forecast.  
 9.1: Relay of vocal interlude from Majestic Theatre.  
 9.7: Tenor solo—Mr. Jack Maddox, "Nirvana" (Adams).  
 9.11: Orchestral—International Concert Orchestra, "La Spagnola" (Spanish Dancer), Di Chiara (Zonophone record EF15).  
 9.15: Contralto solos—Madame Irene Ainsley, (a) "The White Sea Mists" (Ronald); (b) "A Little Winding Road" (Ronald).  
 9.19: Presentation of excerpts from the opera "Mignon" (Thomas), produced under the direction of Madame Irene Ainsley.

### CAST.

Mignon	Madame Irene Ainsley.
Felina	Miss Beryl Adams.
William	Mr. Jack Maddox.
The Minstrel	Mr. Fryer-Raisher.

- Soprano, tenor and baritone trio—"Ah, What Graces!"  
 Contralto solo—"Know'st Thou the Land."  
 Contralto and baritone duet—"The Swallows."  
 Entr'acte—Orchestra, "Berceuse" (Sibelius).  
 Trio—"Here am I."  
 Contralto solo—"The Styrienne."  
 Tenor solo—"Farewell, Mignon."  
 Contralto solo—"The Gavotte."  
 Vocal duet—"Once More My Heart Knows Bliss."  
 Entr'acte—Orchestra, "Caprice" (Moszkowski).  
 Baritone solo—"The Berceuse."  
 Chorus—Finale.  
 9.50: Suite—Orchestra, "Scenes Pittoresque" (Massenet).  
 10.0: God Save the King.

## 2YA, WELLINGTON (420 METRES)—TUESDAY, JANUARY 29.

- 3.0 p.m.: Chimes of the G.P.O. Clock.  
 3.1: Afternoon concert of player piano selections rendered on a Super de Luxe Model "Meltona" recording expression player piano, and selected gramophone items, arranged by Messrs. F. J. Pinny, Ltd.  
 Selection—"Maritana" (Wallace), (Mastertouch Roll D1313).  
 Baritone solo with player piano accompaniment—Mr. H. E. Wilson, "Homing" (Del Riego) (Mastertouch D135).

Selected gramophone item.

Player selection—"A Garden Dance" (Vargas) (Mastertouch C811).

selected gramophone item.

Player selection—"In a Persian Market" (Ketelbey) (Mastertouch XC693).

Soprano solo—Mrs. J. E. Booth, "Golden Bird" (Haydn Wood).

Selected gramophone item.

Player selection—"Air de Ballet" (Chaminade).

Baritone solo—Mr. H. E. Wilson, "The Little Irish Girl" (Lohr).

Selected gramophone item.

Player selection—"Valse Bluette" (Drigo) (Mastertouch C766).

Vocal duet—Mrs. J. E. Booth and Mr. H. E. Wilson, "As I went A'roaming" (Brahe).

Selected gramophone items.

Player selection—"The Special Waltz Medley" (Faist) (Mastertouch D2079).

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 by Mr. A. E. Wilson, Tourist Department, "Tourist Resorts in New Zealand."

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

8.1: Overture—Orchestra, "Overture to an Irish Comedy" (Ansell).

8.11: Tenor solo—Mr. G. Austin Blackie, "Laurette" (Gayne).

8.15: Hawaiian selections—Palmer's Hawaiian Trio, (a) "La Paloma" (Yradier); (b) "Kiss and Make Up" (Bogate).

8.22: Humorous songs at the piano—Mr. R. T. Robinson, selected.

8.27: Humour—John Henry and Blossom, "The Stocking" (Henry and Reeve) (H.M.V. record B2393).

8.34: Bass solos—Mr. F. Stanley, (a) "Tommy Lad" (Margetson); (b) "The Tavern Song" (Fisher).

8.41: Orchestral selections—Orchestra, (a) "Valse Triste" (Sibelius); (b) "Celebrated Minuet" (Boeccherini).

8.49: Popular song—Mrs. H. Jackson, "A Little Birch Canoe and You" (Roberts).

8.53: Orchestral—Orchestra, repeat number.

9.1: Weather report.

9.3: Tenor solo—Mr. G. Austin Blackie, "I Hear You Calling Me" (Marshall).

9.7: Hawaiian instrumental selections—Palmer's Hawaiian Trio, (a) "Honolulu March" (Trdtl.); (b) "Under the Clover Moon" (Schwartz).

9.14: Humorous songs at the piano—Mr. R. T. Robinson, selected.

9.19: Suite—Orchestra, "Americana" (Thurban) 1. The Tiger's Tail; 2. When Malindy Sings; 3. The Water-melon Fete.

9.30: Bass solos—Mr. F. Stanley, (a) "The Lute Player" (Allitsen); (b) "Rolling Down to Rio" (German).

9.37: Solo and chorus with orchestra, Zonophone Light Opera Co., "Gems from 'The Yeoman of the Guard'" (Sullivan) (Zonophone record A321).

9.45: Popular songs—Mrs. H. Jackson, (a) "Just Like a Melody Out of the Sky" (Donaldson); (b) "Together" (Brown and Henderson).

9.51: Musical comedy selection—"Maid of the East" (Morgan).

10.1: Close down.

### 2YA, CHRISTCHURCH (306 METRES)—TUESDAY, JANUARY 29.

SILENT DAY.

### 4YA, DUNEDIN (463 METRES)—TUESDAY, JANUARY 29.

2 p.m.: Town Hall Chimes.

2.1: Gramophone concert.

4.25: Sporting results.

4.30: Close down.

6.0: Town Hall Chimes.

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

7.15: News session.

8.0: Town Hall Chimes. Concert by the City Salvation Army Band, under the conductorship of Mr. A. W. Millard.

8.1: March—The Band, "Advance" (Cotterill).

8.6: Selection—The Band "My Fortress" (Vanderkam).

8.21: Tenor solos—Mr. R. A. Mitchell, (a) "Silver Threads Among the Gold" (Danks); (b) "Like Stars Above" (Squire).

8.27: Violin solo—Toscha Seidel, "Slavonic Dance No. 2 in E Minor" (Dvorak-Kreisler) (Columbia Record 09504).

8.31: Contralto solo—Miss Netta Wilkie, "The Lost Chord" (Sullivan).

8.35: Cornet solo with band accompaniment, "The Song That Reached My Heart" (Arr. Goldsmith).

8.40: Recital—Mr. Lester Moller, "Matrimonial Meanderings."

8.46: Bass solos—Mr. E. G. Bond, (a) "O Pure and Tender Star of Eve" (Wagner); (b) "Philosophy" (Emmeil).

8.52: Hymns—The Band (a) "Norwood", (b) "Aberyswyth".

8.57: Weather forecast and announcements.

9.0: Address by Rev. W. B. Scott, "The Early History of New Zealand."

9.15: Antham—The Band, "We Praise Thee, O God" (Arr. Gore).

9.25: Tenor solo—Mr. R. A. Mitchell, "The Band of Armagh" (Traditional).

9.30: Saxophone solo—Andy Sanella, "Alleen" (Sanella) (Columbia record 01186).

9.34: Contralto solos—Miss Netta Wilkie, (a) "Sweet Early Violets" (Sherington); (b) "Still as the Night" (Bohm).

9.40: Soprano and tenor with harp and orchestra—Anita Atwater and Luis Sanchez, "Colonial Song" (A Song of Australia) (Columbia record 03592).

9.48: Selection—The Band, "New Zealand Melodies" (Gore).

10.0: Recitals—Mr. Lester Moller, (a) "At the Opera" (Stanford); (b) "The Crowning of Dreaming" (Drinkwater).

10.9: Bass solo—Mr. E. G. Bond, "Young Tom O' Devon" (Russell).

10.16: March—The Band, "The Saints" (Smith).

10.20: God Save the King.

## Wednesday, January 30

### 1YA, AUCKLAND (333 METRES)—WEDNESDAY, JANUARY 30.

3.0 p.m.: Afternoon session—selected studio items

4.0: Literary selection by the Announcer.

4.8: Selected 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.

7.45: Talk—Mr. Norman Kerr, "Physical Culture."

8.0: Chimes.

8.1: March—Auckland Salvation Army Congress, Hall Band, "Liberator" (Marshall).

8.9: Vocal quartet—Olympians, "John Peel" (Williams).

8.13: Humour—Norman Long, "Good Little Boy and Bad Little Boy" (Weston and Lee) (H.M.V. Record B2454).

8.17: Tenor solo—Mr. Lambert Harvey, "She Is Far From the Land" (Lambert).

8.21: Meditation—Salvation Army Band, "Nearer to Thee" (Scoting).

8.30: Soprano solo—Miss Dorothy Youd, "Two Little Curly Headed Coons" (Hart).

8.34: Selection—Salvation Army Band, "Thanksgiving" (Marshall).

8.44: Baritone solo—Mr. G. College, "From Oberon in Fairyland" (Slater).

8.48: Band novelty—Savoy Orpheans, "London and Daventry Calling" (H.M.V. Record C1251).

8.56: Cornet solo—Bandman N. Goffin, "Normania" (Arr. Goffin).

9.2: Contralto solo—Miss Martha Williamson, "Someone Singing in My Garden" (Forster).

9.6: Weather forecast.

9.10: March—Salvation Army Band, "Firing Line" (Colls).

9.16: Tenor solo—Mr. Lambert Harvey, "Sanctuary" (Hewitt).

9.20: Pipe organ, piano and harp, Shilkret's Rhythm Melodists, "When You're With Somebody Else" (Gilbert) (H.M.V. Record EA336).

9.24: Soprano solo—Miss Dorothy Youd, "Wings" (D'Hardelot).

9.28: Suite—Salvation Army Band, "American Melodies" No. 1, (Broughton).

9.38: Baritone solo—Mr. G. College, "Arise, O Sun" (Craske Day).

9.43: Selection—Salvation Army Band, "Theodora" (Saywell).

9.51: Contralto solo—Miss M. Williamson, "Salaam" (Lang).

9.55: Vocal quartet—Olympians, "Cuddle Doon" (Roberson).

10.0: Grand selection—Salvation Army Band, "St. Paul" (Mendelssohn).

10.10: God Save the King.

### 2YA, WELLINGTON (420 METRES)—WEDNESDAY, JANUARY 30.

SILENT DAY.

### 3YA, CHRISTCHURCH (306 METRES)—WEDNESDAY, JANUARY 30.

3.0 p.m.: Afternoon session—selected studio items.

4.25: Sports results.

4.30: Close down.

6.0: Children's session.

7.15: News session.

7.30: Addington stock market reports.

8.0: Chimes.

8.1: March—National Military Band, "El Capitan" (Souza) (Columbia Record 01130).

Musical Idyll—H.M. Grenadier Guards Band, "The Smithy In The Woods" (Michaelis) (Columbia Record 4111).

8.7: Tenor solo—Mr. T. G. Rogers, "The Sailor's Grave" (Sullivan).

8.11: Violin solo—Miss Irene Morris, "Andantino" (Schott).

8.15: Soprano solo—Miss Doris Irvine, "O Mio Fernando" (Donizetti).

8.19: Recital—Rev. B. Dudley, "The Reverend Gent Gets Tricked."

8.24: Pianoforte solo—Miss Merle Miller, "Etude in E Major" (Chopin).

8.28: Contralto solo—Miss Nellie Lowe, "A Spirit Flower" (Tipton).

8.32: Instrumental trio—Christchurch Broadcasting Trio, "Allegro Moderato" (Arensky).

8.43: Baritone solo—Mr. W. H. Inkster, "Invictus" (Huhn).

8.47: Argentine Tango—International Novelty Orchestra, "El Choclo" (Villoldo) (H.M.V. Record EA364).

8.51: Vocal duet—Dulcet Duo, "Home To Our Mountains" ("Il Trovatore" (Verdi).

8.55: Patrol—H.M. Grenadier Guards Band, "The Turkish Patrol" (Michaelis) (Columbia Record 4111).

8.59: Weather report.

9.1: Overture—H.M. Grenadier Guards Band, "Wembley Military Tattoo" (Columbia Records 9073-4).



**A Radiotron  
for every  
purpose**

**RADIOTRON UX-201-A**  
Detector Amplifier

**RADIOTRON UV-199**  
Detector Amplifier

**RADIOTRON UX-199**  
Detector Amplifier

**RADIOTRON WD-11**  
Detector Amplifier

**RADIOTRON WX-12**  
Detector Amplifier

**RADIOTRON UX-200-A**  
Detector only

**RADIOTRON UX-120**  
Power Amplifier, Last  
Audio Stage only

**RADIOTRON UX-222**  
Screen Grid Radio  
Frequency Amplifier

**RADIOTRON UX-112-A**  
Power Amplifier

**RADIOTRON UX-171-A**  
Power Amplifier, Last  
Audio Stage only

**RADIOTRON UX-210**  
Power Amplifier  
Oscillator

**RADIOTRON UX-240**  
Detector Amplifier for  
Resistance-coupled  
Amplification

**RADIOTRON UX-226**  
A.C. Filament

**RADIOTRON UY-227**  
A.C. Heater

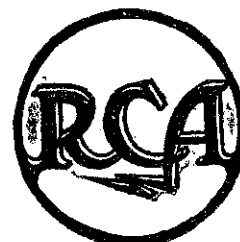
**RADIOTRON UX-280**  
Full Wave Rectifier

**RADIOTRON UX-281**  
Half Wave Rectifier

The Standard by which  
Other Valves are rated

**M**AKE sure that your new radio set is equipped with RCA RADIOTRONS throughout. Manufacturers of quality receiving sets specify RCA Radiotrons for testing, for initial equipment and for replacement. They are recognised by experts as the standard of performance.

RCA Radiotrons are developed and perfected by the Radio Engineers who designed and built the leading American broadcasting stations. Never use new Valves with old ones that have been in use a year or more. See that your Set is completely re-equipped with RCA Radiotrons once a year at least.



Look for this  
mark on every  
RADIOTRON.

**RCA Radiotron**  
MADE BY THE MAKERS OF THE RADIOLA

Send for Free Radiotron Booklet

**Amalgamated**  **Wireless**  
(Australasia) Ltd.

BOX 830

::

::

WELLINGTON.

- 9.8: Talk on Astronomy—Rev. B. Dudley, F.R.A.S., "The Flight of the Solar System."  
 9.23: Tenor solo—Mr. T. G. Rogers, "Laurette" (Gayne).  
 9.27: Pianoforte solo—Miss Merle Miller, "Laughing Water" (Bayton Power).  
 9.31: Soprano solo—Miss Doris Irvine, "Tis The Day" (Leoncavallo).  
 9.35: Violin solo—Miss Irene Morris, "Canzone" (Hans Sitt).  
 9.39: Contralto solos—Miss Nellie Lowe, (a) "Little Holes in Heaven" (b) "When the House is Asleep" (Haigh).  
 9.45: Instrumental trios—Christchurch Broadcasting Trio, (a) "Celebrated Nocturne" (Chopin), (b) "Humoresque" (Widor).  
 9.54: Baritone solo—Mr. W. H. Inkster, "The Mighty Deep" (Jude).  
 9.58: Chorus with orchestra—Light Opera Company, Gems from "The Countess Maritza" (Smith-Kalman) (H.M.V. Record EB11).

#### 4YA, DUNEDIN (463 METRES)—WEDNESDAY, JANUARY 30.

- 7.0 p.m.: Town Hall Chimes.  
 7.40: News session.  
 8.0: Town Hall Chimes.  
 8.1: Overture—Columbia Symphony Orchestra, (a) "Al Fresco" (Herbert); (b) "Bandinage" (Herbert) (Columbia Record 01092).  
 Presentation of Hermann Lohr's Song Cycle, "The Little Sunbonnet" from the words of Edward Teschemacher and Arthur Cleveland, by the 4YA Harmonists. Instrumental accompaniment by the 4YA Broadcasting Trio.  
 Soprano—Miss Roma Buss.  
 Mezzo-soprano—Miss Betty Roberts.  
 Tenor—Mr. H. A. Johnston.  
 Baritone—Mr. F. M. Tuohy.  
 8.9: Quartet—"The Little Sunbonnet."  
 Soprano solo—"Little Print Bonnet."  
 Mezzo-soprano and tenor duet—"Where Violets Grow."  
 Baritone solo—"Little Molly Mary."  
 Quartet—"A Lady Came to Our Town."  
 Tenor solo and quartet—"Somewhere Town."  
 Soprano and baritone duet—"The Roses and the Nightingale."  
 Mezzo-soprano solo, "If I Had a Dolly."  
 Quartet—"So Glad of Heart."  
 8.39: Selection—Symphony Orchestra, "Tales From the Vienna Woods" (Strauss) (Columbia Record 02577).  
 8.43: Mezzo-soprano solo—Miss Betty Roberts, "Slow Horses Slow" (Malinson).  
 8.47: Instrumental Trio—4YA Broadcasting Trio, "Marche Militaire" (Schubert).  
 8.51: Tenor solo—Mr. H. A. Johnston, "At the Mid-Hour of Night" (Cowen).  
 8.54: Recitals—Miss Madge Yates, (a) "Annabel Lee" (Poe); (b) "Christ in Flanders."  
 9.3: Weather forecast and announcements.  
 9.4: Organ solo—G. T. Pattman, "Polly" (Zamecnik) (Columbia Record 01144).  
 9.8: Soprano solo—Miss Roma Buss, (a) "For You a Rose, For Me a Memory" (Nichols); (b) "Coming Home" (Willeby).  
 9.15: Violin solos—Miss Eva Judd, (a) "Minuet From Suite in D" (Vieuxtemps); (b) "Chant Sans Paroles" (Tschaiakowsky).  
 9.25: Baritone solo—Mr. F. M. Tuohy, (a) "On the Road to Mandalay" (Speaks); (b) "Trade Winds" (Keel).  
 9.32: Pianoforte solos—Miss Aileen Young (a) "Barcarolle"; (b) "Spring's Awakening" (Haberbier).  
 9.39: Mezzo-soprano solo—Miss Betty Roberts, "Midnight Elves" (Temple).  
 9.42: Cello solo—Mr. P. J. Palmer, "Arlequin" (Popper).  
 9.45: Tenor solo—Mr. H. A. Johnston, "Nightfall at Sea" (Phillips).  
 9.48: Recital—Miss Madge Yates, "The Ghost Story."  
 9.52: Waltz—Eddie Thomas' Collegians, "Moments With You" (Shilkret and Yellen) (Columbia Record 01135).  
 9.56: Tenor solo—Charles Hackett, "Because" (d'Hardelot) (Columbia Record 03597).  
 10.0: Foxtrot—Ben Selvin and His Orchestra, "In My Bouquet of Memories" (Columbia Record 01137).  
 10.3: Musical Idyll—H.M. Grenadier Guards Bands, "The Smithy in the Woods" (Michaelis) (Columbia Record 411).  
 10.7: March—National Military Band, "National Emblem March" (Bagley) (Columbia Record 01153).  
 God Save the King.

## Thursday, January 31

#### 1YA, AUCKLAND (333 METRES)—THURSDAY, JANUARY 31.

- 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 Peter Pan.  
 7.15: News and market reports.  
 8.0: Chimes.  
 8.1: Overture—Grand Symphony Orchestra, "Zampa" (Herold) (Parlophone Record A4020).

- 8.9: Vocal trio—Lyric Trio, "Lovely Night" (Cathul).  
 8.13: Humour—Mr. Dan Flood, Some Humour.  
 8.18: Instrumental trio—Auckland Trio, "Andante and Scherzo" from "Trio in D Minor" (Mendelssohn).  
 8.26: Tenor solo—Mr. Herbert Richards, "My Heart's Desire" (Clarke).  
 8.30: Orchestral—Dajos Bela Orchestra, (a) "Caprice Viennois" (Kreisler); (b) "Humoresque" (Dvorak) (Parlophone Record E10559).  
 8.34: Comedy sketch—Auckland Comedy Players under the direction of Mr. J. F. Montagne, "Disgrace!"  
 8.54: Bass solo—Mr. Ernest Thomas, "Glorious Devon" (German).  
 8.58: Weather forecast.  
 9.0: Orchestral—Frank Westfield's Orchestra, "Lilac Time" (Schubert—Berte) (Parlophone Record A2543).  
 9.8: Vocal trio—Lyric Trio, "Little Tommy" (Parkes).  
 9.12: Violin solo—Miss I. Bosworth, "Hebrew Melody" (Achron).  
 9.16: Humour—Mr. Dan Flood, More Humour.  
 9.24: Hawaiian Entertainers—Queenie and David Kaili, (a) "Rose of Honolulu" (Armstrong); (b) "Breeze" (Hanley) (Parlophone Record 2430).  
 9.28: Comedy sketch—Auckland Comedy Players, "They Write a Play."  
 9.45: Tenor solo—Mr. A. Ripley, "Evening Song" (Blumenthal).  
 9.49: Instrumental trio—Auckland Trio, "L'Enfant Prodigue" (Wormser).  
 9.57: Vocal trio—Lyric Trio, "Sunset" (Vanderwater).  
 10.1: God Save the King.

#### 2YA, WELLINGTON (420 METRES)—THURSDAY, JANUARY 31.

- 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 Aunt Gwen.  
 7.0: News session—Market Reports and sports results.  
 7.40: Lecturette—Mr. Alfred Blaxall, "Get Rid of that Tired Feeling."  
 Studio concert by the Band of 1st Battalion Wellington Regiment under the conductorship of Lieut. B. J. Shardlow, and assisting artists.  
 8.0: Chimes of the G.P.O. clock.  
 8.1: March medley—Band, "Martial Moments" (Winter).  
 8.13: Tenor solos—Mr. Chas. Williams, (a) "Gentle Maiden" (old Irish air), (b) "Bells of Happiness" (Charles).  
 8.20: Violin solo—Edith Lorand, "The Old Tower of St. Stephen" (Brandl—Kreislner) (Parlophone Record E10549).  
 8.24: Contralto solos—Miss Ethel Friend, (a) "Forgetfulness" (Larway), (b) "Deep River" (Burleigh).  
 8.30: Vocal quartet—Lyric Quartet, "Two Roses" (Werner).  
 8.34: Cornet solo with band accompaniment—Sergeant W. Barker, "My Prayer" (Squire).  
 Waltz—Band, "The Old Abbey" (Rimmer).  
 8.45: Recital—Mr. J. S. Webb, "Boots" (Kipling).  
 8.50: Baritone solos—Mr. Will Goudie, (a) "From Oberon in Fairyland" (Slater), (b) "A Song of Sleep" Somerset.  
 8.57: Selection—Band, "Wilfred Sanderson's Songs" (Hume).  
 9.9: Weather report.  
 9.10: Contralto solos—Miss Ethel Friend, (a) "To Music" (Schubert), (b) "Three" (Windsor).  
 9.16: Violin solos—Edith Lorand, (a) "Minuet in G" (Beethoven), (b) "Schon Rosmarin" (Kreisler) (Parlophone Record E10549).  
 9.20: Vocal quartet—Lyric Quartet, "Little Tommy" (Macy).  
 9.24: Selection—Band, "Prelude and Mazurka" from "Coppelia" (Delibes).  
 9.36: Humour—Mr. J. S. Webb, "The Play," from "The Sentimental Bloke" (Dennis).  
 9.42: Duet—Messrs. Chas. Williams and Will Goudie, "The Garden of Your Heart" (Dorel).  
 9.46: Euphonium solo—"Bedouin Love Song" (Pinsuti).  
 Fantasia—Band, "Cavalleria Rusticana" (Mascagni).  
 9.58: Bass solos—Mr. W. Binet Brown, (a) "Come to the Fair," (b) "Hatfield Bells" (Easthope Martin).  
 10.4: Vocal quartet—Lyric Quartet, "Kentucky Lullaby" (Hawley).  
 10.8: March—Band, "Brilliant" (Hume).  
 10.14: Close down.

#### 3YA, CHRISTCHURCH (306 METRES)—THURSDAY, JANUARY 31.

- 3 p.m.: Afternoon session—Gramophone recital (electrically reproduced).  
 4.25: Sporting results.  
 4.30: Close down.  
 6.0: Children's hour.  
 7.15: News session.  
 8.0: Chimes.  
 8.1: Rebroadcast of 2YA, Wellington (conditions permitting).  
 8.6: Vocal quartet—The Melodious Four, "Awake! Awake!" (Bantock).  
 Contralto solos—Miss Belle Renaut, (a) "Song of the Bride" (Finden), (b) "O Let Thy Tears" (Jensen).  
 8.15: Bass solo—Mr. T. D. Williams, "Eleanore" (Coleridge-Taylor).  
 8.19: Instrumental—The Bohemian Quintet, (a) "Waltz" (Taylor), (b) "Gavotte" (Rameau).  
 8.27: Soprano and contralto duet—The Melodious Duo, (a) "Oh! to be in England" (Rowley), (b) "Queen Mab" (Rowley).  
 8.32: Piano concerto—Ignaz Friedman, "Concerto in A Minor" (four sides), second and third movements (Columbia Records 2704-5).  
 8.52: Soprano solos—Miss Frances Hamerton, (a) "Bend Low Thine Ear" (Besley), (b) "L'Ete" (Besley).  
 8.58: Recital—Miss Malona Juriss, "The Sisters" (Whittier).



- 9.2: Weather report.  
 9.3: Instrumental—The Bohemian Quintet, "Esquisse" (Aubert).  
 9.7: Vocal quartet—The Melodious Four, (a) "Thomas and Annie" (Davies), (b) "The White Paternoster" (Davies).  
 9.18: Contralto solo—Miss Belle Renaut, "Loveliest of Trees" (Somerville).  
 9.19: Chorus with orchestra (in Russian)—Chauve Souris Company, "A Russian Barcarolle" (Varlamoff) (Columbia Record 02525).  
 9.23: Tenor solos—Mr. Russell Sumner, (a) "Hey, Ho! the Wind and the Rain" (Quilter), (b) "Sandalled Feet" (Ahn Carse).  
 9.27: Orchestral—Columbia Symphony Orchestra, "Al Fresco" (Herbert) (Columbia Record 01092).  
 9.30: Tenor and bass duet—The Yeomen Duo, "Sink, Red Sun" (Riego).  
 9.34: Instrumental—The Bohemian Quintet, (a) "At the Theatre" (Foulds), (b) "Evening in the Forest" (Foulds), (c) "Fiddler's Fancy" (Foulds).  
 9.46: Soprano solo—Miss Frances Hamerton, "Make Haste" (Dessaner).  
 9.50: Humour—Miss Maiona Juriss, "Packing."  
 9.55: Bass solos—Mr. T. D. Williams, (a) "Hebridean Sea-Reiver's Song," (b) "In Hebrid Seas" (Kennedy-Fraser).  
 Vocal quartet—The Melodious Four, "Winds of the Sweet Springtime" (Percival).  
 10.4: Military Band—H.M. Grenadier Guards Band, (a) "La Paloma" (Yradier), (b) "Twist and Twirl" (Kottann) (Columbia Record 0987).  
 God Save the King.

4YA, DUNEDIN (463 METRES)—THURSDAY, JANUARY 31.  
 SILENT DAY.

## Friday, February 1

1YA, AUCKLAND (333 METRES)—FRIDAY, FEBRUARY 1, 1929.

- 3.0 p.m.: Afternoon session—selected studio items.  
 4.0: Literary selection by the announcer.  
 4.3: 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: Overture—Orchestra, "Italians in Algeria" (Rossini).  
 8.11: Vocal quartet—Clarion Quartet, "Birthdays" (Parkes).  
 8.15: Bass solo—Mr. Duncan Black, "I Pitched My Lonely Caravan" (Lohr).  
 8.19: Pianoforte concerto—Alfred Cortot and London Symphony Orchestra, "Concerto in A Minor" Op. 54 (1st movement—Allegro Affettuoso) (H.M.V. record DB1059-60 (Schumann)).  
 8.35: Recital—Mr. Thomas Harris, "The Coward".  
 8.40: Vocal duet—Miss A. McGruer and B. Smith, "My Thoughts are Swallows" (Lambert).  
 8.44: Tenor solo—Mr. Jas. Simpson, "The Blind Ploughman" (Clarke).  
 8.49: Suite—Orchestra, "Peer Gynt Suite" Pt. 1 (Grieg). 1. Morning; 2. Death of Ase; 3. Anitra's Dance; 4. In the hall of the Mountain King.  
 9.0: Contralto solo—Miss Beryl Smith, "Harbour Night Song" (Sanderson).  
 9.3: Weather forecast.  
 9.5: Vocal duet with male chorus and orchestra—Florence Mummery and Browning Mummery, "Miserere" (from "Il Trovatore") (Verdi) (H.M.V. record D1302).  
 9.9: Talk—The announcer, "Great Authors—Robert Louis Stevenson."  
 9.24: Vocal duet—Messrs. Black and Simpson, "Little Grey Home" (Lohr).  
 9.28: Violin solo with orchestral accompaniment—Miss Ina Bosworth, "Serenata" (Moszkowski).  
 9.32: Recitals—Mr. Thomas Harris, (a) "Three Ages of Man"; (b) "Three Ages of Woman."  
 9.40: Baritone and male quartet—Jno. Goss and Cathedral Male Voice Quartet, (a) "Lowlands" (arrgd. Harris); (b) "Highland Laddie" (arrgd. Harris) (H.M.V. record B2693).  
 9.44: Soprano solo—Miss Alma McGruer, "One Fine Day" (from "Madame Butterfly") (Puccini).  
 9.48: Vocal quartet—Clarion Quartet, "Love's Old Sweet Song" (arrgd. Parkes).  
 9.52: Musical comedy selection—orchestra, "Merrie England" (German).  
 10.3: Close down.

2YA, WELLINGTON (420 METRES)—FRIDAY, FEBRUARY 1.

- 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 Big Brother Jack.  
 7.0: News session—Market reports and sports results.  
 7.40: Lecturette—Mr. D. McKenzie, "The Laws of Cricket."  
 8.0: Chimes of the G.P.O. clock.  
 8.1: Special studio presentation of Balfe's one-act operetta, "The Sleeping Queen," by the Ariel Singers, assisted by the studio orchestra.

### Dramatis Personæ:

Maria Dolores, Queen of Leon ..... Miss Jeanette Briggs  
 Donna Agnes, a Maid of Honour ..... Miss Ngaire Coster  
 Phillip d'Aguilar, a Young Exile ..... Mr. W. Roy Hill  
 His Excellency the Regent ..... Mr. J. M. Caldwell

(The action passes at the Court of Leon and extends over a summer's afternoon.)

(The dialogue of the operetta will be spoken by Misses Effie Brice and Ngaire Coster and Messrs. Peter Dorrian and Cedric Gardiner.)

### Synopsis:

At the end of a pseudo-love scene between the amorous Regent and the bored Donna Agnes, the former promises that on receipt of a piece of Agnes's ribbon as a "love token," he will extend Court protection to young Phillippe d'Aguilar, who is a newly-arrived friend of Agnes's, but who is also the son of the Regent's old and hated political rival, Ferdinand d'Aguilar.

Later, Phillippe dolefully relates to Agnes how he once rescued a lovely maiden from a runaway horse, and fell madly in love with her, only to find that she was the Queen. He, of course, despairs of winning her, and begs Agnes to try to get him a troop of horse that he may go away and fight the Moors. She naively tells him to give her ribbon to the Regent, who will grant his request. This is as she says, but later Phillippe surprises the Queen in the garden. In view of his projected departure, he kisses her, and is discovered in the act by the Regent, who demands that he pay the traditional death penalty therefor. The Queen, however, who is really in love with Phillippe all the time, induces the Regent, by a clever woman's ruse, also to kiss her, thus bringing him, too, within reach of the old law. Under the circumstances the Regent waives Phillippe's offence, and the latter is married to the Queen, both living happily ever after.

Overture—Orchestra, "Overture to the Sleeping Queen" (Balfe).

Air—"The Prime Minister."

Duet—"I Crave a Boon."

Air—"Only a Ribbon."

Trio—"She is Heartless."

Duet—"The Treaty."

Air—"The Noontide Dream."

Air—"Oh! Could I but Relieve the Past."

Trio—"Most Awful Sight."

Finale—"Fondly I Dreamed."

8.51: Orchestral—Orchestra, repeat number.

8.59: Weather report.

9.1: Baritone solos—Lawrence Tibbett, (a) "Si puo?" (A word allow me), (b) "Un Nido di Memorie" (A song of tender memories), from "I Pagliacci" (Leoncavallo) (H.M.V. Record DB975).

9.9: Overture—Orchestra, "Stradella" (Plotow).

9.19: Humour—Mr. Cedric Gardiner, "The Serial Story."

9.24: Soprano with violin—Emmy Bettendorf, "Slumber Softly, Dear Love" (Brahms) (Parlophone Record E10595).

Soprano with orchestra—Margherita Salvi, "Una Voce Poco Fa Qui Nel Cor Mi Risuono" (Rossini) (Parlophone Record A5002).

9.32: Ballet suite—Orchestra, "Ascanio Ballet Music" Part 1 (Saint-Saens):

1. Entry of the Master of the Games.
2. Venns, Juno, and Pallas.
3. Diana, Woodnymphs and Waternymphs.

4. Bachhus and Beccantes.

5. A vision of Phoebus, Apollo, and the Nine-Muses.

6. Phoebus and the Harp and Cupid.

9.45: Chorus with orchestra—Chauve Souris Coy, (a) "A Russian Barcarolle" (Varlamoff), (b) "Round the Hay Wain" (Columbia Record 02525).

9.51: Musical comedy selection—Orchestra, "The Mikado" (second selection) (Sullivan).

10.1: Close down.

3YA, CHRISTCHURCH (306 METRES)—FRIDAY, FEBRUARY 1.

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

4.25: Sports results.

4.30: Close down.

6.0: Children's hour—Mr. Storyman.

7.15: News session.

8.0: Chimes.

8.1: Rebroadcast of overture by 2YA, Wellington (conditions permitting).

8.6: Operatic vocal quartet—The Valencia Quartet, "Gipsy Chorus" from "Bohemian Girl" (Balfe).

8.10: 'Cello solo—Mr. Harold Beck, "Largo" (Chopin).

8.14: Contralto solo—Miss Anita Graham, "Waiata Maori" (Hill).

8.18: Hawaiian instrumental—Clark's South Sea Islanders, "Uluwehi O Kaala" (Beautiful Kaala) (Kanehomauole) (Columbia Record 01225).

8.22: Tenor solo—Mr. W. Bradshaw, "I'll Sing Thee Songs of Araby" (Clay).  
 8.28: Instrumental trio—Christchurch Broadcasting Trio, "Miniature" (Gur-litt).

8.35: Soprano and contralto duet—The Valencia Duo, "Venetian Boat Song" (Blumenthal).

8.39: Talk on manners—Mr. Hiram Dunford, "Etiquette" (O Tempora, O Mores!).

8.44: Soprano solos—Miss Renetta Rings, "Anytime's Kissing-Time" ("Chu Chin Chow") (Norton).

8.48: Saxophone solo—Rudy Wiedoeft, "Sax-o-phun" (Wiedoeft) (Columbia Record 4037).

8.56: Bass solo—Mr. F. A. Miller, "Bjorn the Viking" (Greenstead).

9.0: Weather forecast.

9.2: Overture—Ketelby's Concert Orchestra, "In a Fairy Realm" (Ketelby):  
 (1) The Moonlit Glade, (2) The Queen Fairy Dances, (3) The Gnomes' March (Columbia Records 02694-5).

- 9.13: Tenor solo—Mr. W. Bradshaw, "Tom Bowling" (Dibdin).  
 9.17: 'Cello solo—Mr. Harold Beck, "Gavotte" (Lully).  
 9.21: Contralto solos—Miss Anita Graham, (a) "Boat Song" (Ware); (b) "Big Lady Moon" (Coleridge-Taylor).  
 9.27: Wurlitzer organ—Milton Charles, "Love's Old Sweet Song" (Molloy) (Columbia Record 01161).  
 9.30: Tenor and bass duet—The Valetta Duo, "The Battle Eve" (Bonheur).  
 9.34: Instrumental trio—Christchurch Broadcasting Trio, "Romance" (Bridge).  
 9.42: Epicurean humour—Mr. Hiram Dunford, "The Swallowed Frog" (Max Adeler).  
 9.46: Male voice choir—Sheffield Orpheus Choir. (a) "The Lincolnshire Poacher, (b) "There is a Tavern in the Town" (Columbia Record 01175).  
 9.49: Soprano solo—Miss Renetta Rings, "Indian Love Call" ("Rose Marie") (Primi).  
 9.52: Bass solo and chorus—Mr. F. A. Millar and the Valencia Quartet—(a) "The Admiral's Broom" (Bevan); (b) "The Shepherds" (Percival).  
 God Save the King.

#### 4YA, DUNEDIN (463 METRES)—FRIDAY, FEBRUARY 1.

- 3 p.m.: Town Hall chimes.  
 3.15: Fashion Talk by Miss Buccleuch, of the D.S.A.  
 3.30: Afternoon-tea music from the Savoy.  
 3.40: Studio items.  
 4.0: Music from the Savoy.  
 4.10: Gramophone items.  
 4.25: Sporting results.  
 4.30: Close down.  
 6.0: Town Hall chimes.  
 6.1: Children's hour conducted by Auntie Sheila and Big Brother Bill.  
 7.15: News session.  
 8.0: Town Hall chimes.  
 8.1: Overture—National Symphony Orchestra, "Martha" Overture (Flotow) (Zonophone Record EF19).  
 8.9: Contralto solos—Miss Irene Horniblow, (a) "The Linden Tree" (Schubert), (b) "Impatience" (Schubert).  
 8.15: Selection—Piccadilly Orchestra, "The Waltz Dream" (Strauss) (H.M.V. Record B2634).  
 8.23: Baritone solo—Mr. Arthur Lungley, "O Tu Palermo" (Verdi).  
 8.27: Pianoforte concerto—Alfred Cortot and London Symphony Orchestra, "Concerto in A Minor," Op. 54 (first movement) (Schumann) (H.M.V. Records DB1059-60).  
 8.42: Mezzo-soprano solos—Miss Molly Vickers, (a) "Cradle Song" (Schubert), (b) "The Wild Rose" (Schubert).  
 8.48: Contralto solo—Miss Irene Horniblow, "Slumber Song" (Schubert).  
 8.51: Pianoforte solo—Miss Aileen Young, "First Movement, Op. 27, No. 2" (Beethoven).  
 8.57: Baritone solos—Mr. Arthur Lungley, (a) "Open Thy Blue Eyes" (Massenet), (b) "Elegie" (Massenet).  
 9.3: Weather forecast and announcements.  
 9.5: Mezzo-soprano solo—Miss Molly Vickers, "Love in Spring" (Gounod).  
 9.8: Tenor with violin obligato—John McCormack, "Angels' Serenade" (Braga) (H.M.V. Record DB578).  
 9.12: Band selection—U.S. Marine Band, "Semper Fidelis" (Sousa) (Zonophone Record EE74).  
 9.16: Relay of Dance Music from the Savoy.  
 10.0: God Save the King.

## Saturday, February 2

#### 1YA, AUCKLAND (333 METRES)—SATURDAY, FEBRUARY 2.

- 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: Sports results.  
 7.30: News and market reports.  
 8.0: Chimes.  
 8.1: Overture—Berlin State Opera House Orchestra, "William Tell" (Rossini) (Parlophone Record AR1003-4).  
 8.15: Vocal duet—Mrs. Daisy Basham and Mr. Arthur Briggs, "Golden Song" (Clutsam).  
 8.19: Instrumental trio—Auckland Trio, Selection from "Manon" (Massenet).  
 8.26: Humour—Mr. F. W. Barker, "Mrs. Brown at the Play."  
 8.36: Baritone solo—Mr. Arthur Briggs, "Dear Little Jappy-Jap-Jappy" (Jones).  
 8.40: Contralto solos—Mrs. D. Basham, (a) "'Tis I" (Pinsuti); (b) "An Irish Lullaby" (Needham).  
 8.46: 'Cello solo—Miss Molly Wright, "Lullaby" (Elkin).  
 8.50: Duet—Mrs. D. Basham and Mr. A. Briggs, "When The Lilac Bloom Uncloses" (Clutsam).  
 8.54: Saxophone solo—Andy Sanella, "Jack and Jill" (Sanella) (Columbia Record 01186).  
 8.58: Humour—Mr. F. W. Barker, "Orange Blossoms."

- 9.2: Weather forecast.  
 9.4: Baritone solos—Mr. A. Briggs, (a) "Mignon" (d'Hardelot); (b) "Margareta" (Lohr).  
 9.11: Orchestral—Columbia Symphony Orchestra, (a) "Al Fresco" (Herbert); (b) "Bandinage" (Herbert) (Columbia Record 01092).  
 9.15: Vocal duet—Mrs. D. Basham and Mr. A. Briggs, "Two Little Chicks" (Sullivan).  
 9.19: Instrumental trio—Auckland Trio, "Henry VI Dances" (German).  
 9.28: Vocal duet—Mrs. D. Basham and Mr. A. Briggs, "There Grew a Little Flower" (Sullivan).  
 9.32: Dance and novelty items.  
 11.0: Close down.

#### 2YA, WELLINGTON (420 METRES)—SATURDAY, FEBRUARY 2.

- 2.30: Relay of New Zealand Amateur Swimming Championships from the Te Aro Baths, with description of events.  
 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.  
 8.0: Chimes of the G.P.O. clock.  
 8.1: Overture—Orchestra, "Overture in the Form of a March" (Meyerbeer).  
 8.11: Vocal quartet—Melodie Four, "Old Folks Medley" (Sheridan).  
 8.15: Vocal solo—Winifred Lawson, "Kind Sir, You Cannot Have the Heart" (Sullivan) (H.M.V. Record D1339).  
 8.19: Novelty—"Vermont," Bird and Animal Imitations.  
 8.23: Baritone solo—Mr. R. S. Allwright, "Fleurette" (McGeogh).  
 8.27: Violin solo with orchestral accompaniment, "Cavatina" (Raff).  
 Orchestral—Orchestra, "Andantino" (Lemare, arrgd. Bellingham).  
 8.37: Humour—Mr. Jack Wilkinson, (a) "All For The Ladies"; (b) "All For the Girls" (Weston and Barnes).  
 8.43: Vocal trio—S. Gordon, D. Oldham and G. Baker, "See, See! At Last They Come" (from "The Gondoliers" (Sullivan) (H.M.V. Record D1335).  
 8.47: Vocal quartet—Melodie Four, "Get Out and Get Under the Moon" (Arrgd. Crowther).  
 8.51: Orchestral—Orchestra, repeat number.  
 8.59: Weather report.  
 9.1: Tenor solo—Mr. Frank Bryant, "An Evening Song" (Blumenthal).  
 9.5: Novelty—"Vermont," Bird and Animal Imitations.  
 9.9: Novelty—Orchestra, "Musical Jigsaw" (Aston).  
 9.19: Bass solo—Mr. W. W. Marshall, "The Bandolero" (Stuart).  
 9.23: Humour—Mr. Jack Wilkinson, "There's a Catch in it Somewhere" (Weston and Barnes).  
 9.29: Descriptive selection—Orchestra, "The Mouse and the Clock" (Whitney).  
 9.34: Tenor solo—Mr. Frank Bryant, "A Song and a Dream" (Cadman).  
 9.38: Musical comedy selection—Orchestra, "Stop Flirting" (Gershwin).  
 9.48: Vocal quartet—Melodie Four, "Banjos Down in Dixie" (Giebel).  
 9.52: Orchestral—Dance novelties.  
 10.0: Dance programme.  
 11.0: Close down.

#### 3YA, CHRISTCHURCH (306 METRES)—SATURDAY, FEBRUARY 2.

- 3.0 p.m.: Afternoon session—Gramophone Recital (electrically reproduced).  
 4.25: Sporting results.  
 4.30: Close down.  
 6.0: Children's hour.  
 7.15: News and reports session.  
 7.30: Sporting results.  
 8.0: Chimes.  
 8.2: Rebroadcast of 2YA Wellington (conditions permitting).  
 10.0: Dance music programme.  
 11.0: Close down.  
 -God Save the King.

#### 4YA, DUNEDIN (463 METRES)—SATURDAY, FEBRUARY 2.

- 7.15: p.m.: News session.  
 8.0: Town Hall chimes.  
 8.1: Relay of Orchestral Music under the baton of Mons. Henri de Rose (Mus. Bach.) from the Octagon Theatre.  
 8.16: Popular song hits—Miss Betty Roberts, (a) "By The Campfire" (Wenrich); (b) "Side by Side" (Woods).  
 8.22: Light Orchestral—De Groot and the Piccadilly Orchestra, "Lolita" (Ferrete) (H.M.V. Record B2713).  
 8.26: Light baritone solo—Mr. Norman Scurr, "I Can't Do Without You" (Berlin).  
 8.30: Humorous sketch—Miss Sheila Neilson and Mr. J. B. McConnell.  
 8.40: Orchestral overture relayed from the Octagon Theatre.  
 8.55: Popular song hits—Miss Mona Melville, (a) "Maytime"; (b) "Oriental Love Dreams."  
 9.2: Weather forecast and announcements.  
 9.4: Male Voice Chorus—The Revellers, "Mammy Is Gone" (De Sylva, Brown and Henderson) (H.M.V. Record EA384).  
 9.12: Humorous Scottish song—Mr. J. Paterson, "The Pirate" (Lauder).  
 9.16: Tenor with violin, 'cello and piano—Maurice J. Gunsky, "Why Do I Always Remember?" (Zonophone Record EE17).

- 9.20: Foxtrot—Paul Whiteman's Orchestra, "My Angel" (Pollack-Rapee (H.M.V. Record EA362)).
- 9.24: Popular song hit—Miss Betty Roberts, "The Kinkajou" (Tierney).
- 9.27: Waltz—International Concert Orchestra, "The Waltz Dream" (Strauss) (Zonophone Record EF18).
- 9.31: Light baritone solos—Mr. Norman Scurr, (a) "Anything You Say" (Donaldson); (b) "The Song of the Prune" (De Costa).
- 9.38: Humorous sketch—Miss Sheila Neilson and Mr. J. B. McConnell.
- 9.48: Popular song hit—Miss Mona Melville, "Shanghai" (Nichols).
- 9.51: Band selection—Band of H.M. Royal Air Force, "In a Chinese Temple Garden" (Ketelby) (H.M.V. Record C1244).
- 9.54: Humorous Scottish songs—Mr. J. Paterson, (a) "Sandy McDougall" (McLeod); (b) "Exercise" (Rose).
- 10.1: Foxtrot—Nat Shilkret's Orchestra, "What's The Reason" (Rubens) (H.M.V. Record EA378).
- 10.6: Band—American Legion Band, "March Salutation" (Seitz) (Zonophone Record EB74).  
God Save the King.

## Sunday, February 3

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

- 5 p.m.: Afternoon session—Selected studio items.
- 4.0: Literary selection by the announcer.
- 4.8: Further studio items.
- 4.30: Close down.
- 5.0: Children's hour conducted by Uncle Leo.
- 5.55: Relay of evening service from St. Paul's Church (Preacher, Rev. Cecil A. B. Watson; organist, Dr. W. C. Thomas).
- 8.30: Overture—Berlin State Opera Orchestra, "Beautiful Galathea" (Suppe) (H.M.V. Record C1527).
- 8.38: Contralto solos—Miss Madge Clague, (a) "Nearer, My God, to Thee" (Carey), (b) "Down Here" (Brake).
- 8.46: Pianoforte solo—Alfred Cortot, "Polonaise, Op. 74, No. 5" (Chopin-Liszt) (H.M.V. Record DA146).
- 8.50: Baritone solo—Sergeant W. H. Hallahan, "Devonshire Cream and Cider" (Sanderson).
- 8.54: 'Cello solo—W. H. Squire, "The Blind Boy" (Moore) (Columbia Record 03604).
- 8.58: Orchestra—Royal Opera Orchestra, "Faust" Ballet Music (Gounod) (H.M.V. Record C1463).
- 9.6: Contralto solos—Miss Madge Clague, (a) "Flower Song" from "Faust" (Gounod), (b) "An Eriskay Love-Lilt" (Kennedy).
- 9.14: Pianoforte solo—Alfred Cortot, "Preludes Nos. 12 and 8" (Debussy) (H.M.V. Record DB405).
- 9.18: Baritone solos—Sergeant W. H. Hallahan, (a) "Sea Fever" (Clarke), (b) "Golden City of St. Mary" (Clarke).
- 9.26: Orchestra—Columbia Symphony Orchestra, "March of the Toys" (Hurt) (Columbia Record 02651).
- 9.30: God Save the King.

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

- 3 p.m.: Chimes of the G.P.O. clock.
- 3.1: Selected gramophone items.
- 4.30: Close down.
- 6.0: Children's song service conducted by Uncle George.
- 7.0: Relay of service from Vivian Street Baptist Church (Preacher, Rev. F. E. Harry; organist, Mr. Chas. Collins; choirmaster, Mr. J. R. Samson).
- 8.15 (approx.):  
Overture—Philadelphia Symphony Orchestra, "Rienzi" (Wagner) (H.M.V. Records ED3-4).  
Contralto solo—Miss Rita Arnold, "O Fatal Gift" ("Don Carlos"—Verdi).  
Violin solo—Sascha Jacobsen, "Midnight Bells" (Henberger and Kreisler) (Columbia Record 01148).  
Baritone solo—Mr. Ray Kemp, "Thanks be to God" (Dickson).  
Pianoforte solos—Mr. Norman Izett, (a) "Highland Lament" (Barrett), (b) "Valse," Op. 42 (Chopin).  
Tenor solo—Mr. Chas. Edwards, "The Lord is My Light" (Allitsen).  
Orchestral—London Symphony Orchestra, (a) "Chanson de Marin," (b) "Chanson De Nuit" (Op. 15, Nos. 1 and 2, Elgar), (H.M.V. Record D1236).  
Vocal duet—Miss Rita Arnold and Mr. Ray Kemp, "Hold Thou My Hand" (Briggs).  
Harpichord solos—Madame W. Landowska, (a) "Harmonious Blacksmith" (Handel), (b) "Turkish March" (Beethoven) (H.M.V. Record DA60).  
Tenor solos—Mr. Chas. Edwards, (a) "My Task" (Ashford), (b) "The Blind Ploughman" (Clarke).  
Contralto solo—Miss Rita Arnold, "Elegie" (Massenet).  
Band selection, H.M. Coldstream Guards, (a) "Barcarolle" (Tschai-kowsky), (b) "Valse Creole" (Tschai-kowsky).  
Soprano solos—Mavis Bennett, (a) "Pretty Mocking Bird" (Bishop), (b) "Down Vauxhall Way" (Oliver) (H.M.V. Record C1377).  
Organ solos—Chas. W. Saxby, F.R.C.O., "Classica" (pot-pourri selection of famous airs, arr. Ewing) (Zonophone Record A334).  
Baritone solos—Mr. Ray Kemp, (a) "A Dream" (Bartlett), (b) "A Brown Bird Singing" (Wood).

Band selections—H.M. Coldstream Guards, (a) "Pomp and Circumstance" March (Elgar), (b) "Marche Lorraine" (Gaune) (Columbia Record 02681).  
Close down.

### 3YA, CHRISTCHURCH (306 METRES)—SUNDAY, FEBRUARY 3.

- 3 p.m.: Afternoon session—Gramophone recital (electrically reproduced).
- 4.30: Close down.
- 5.30: Children's song service (Uncle David).
- 6.15: Hymn chimes.
- 6.30: Gramophone recital (electrically reproduced).
- 7.0: Relay of evening service from the Durham Street Methodist Church (Preacher, Rev. W. T. Blight; organist, Mr. Ernest Firth, F.R.C.O.).
- 8.15 (approx.): Overture—Berlin State Opera Orchestra, "Mignon" Overture, Pts. 1 and 2 (Thomas) (Parlophone Record E10557).
- 8.23: Soprano solo—Mrs. T. G. Rogers, "Oh that Summer Smiled for Aye" (Davies).
- 8.27: Tenor solo—Mr. T. G. Rogers, "Father of Light" (Adams).
- 8.31: Violin solos—Edith Lorand, (a) "Liebesfreud" (Love's Sorrow) (Kreisler), (b) "Liebeslied" (Love's Joy) (Kreisler) (Parlophone Record E10537).
- 8.39: Contralto solos—Mrs. D. W. Stallard, (a) "Still as the Night" (Bohm), (b) "In the Garden of My Heart" (Ball).  
Baritone solo (with orchestra)—Kenneth Ellis, "But Who May Abide," from "The Messiah" (Handel) (Parlophone Record E10539).
- 8.45: Instrumental Quintet—Parlophone Instrumental Quintet, "O Thou Joyful" (Christmas Hymn) (Parlophone Record A2581).
- 8.53: Soprano and tenor duet—Mr. and Mrs. T. G. Rogers, "O Lovely Night" (Ronald).
- 8.57: Choral with orchestra—Pertile, Ferraris, Righetti, and Baromeo (with chorus and orchestra), "La Rivedra Nell Estasi" (Verdi) (Parlophone Record R2007).
- 9.5: Contralto solo—Mrs. D. W. Stallard, "The Lost Chord" (Sullivan).
- 9.9: Instrumental—Dajos Bela Orchestra, "Caprice Viennois" (Kreisler) (Parlophone Record E10559).
- 9.13: Soprano solos—Mrs. T. G. Rogers, (a) "One Fleeting Hour" (Dorothy Lee), (b) "My Prayer" (Squire).
- 9.21: Tenor solo—Mr. T. G. Rogers, "All Hail Thou Dwelling," from "Faust" (Gounod).
- 9.25: Instrumental suite—Berlin State Opera House Orchestra: "Casse Noisette" (Tschai-kowsky) (Parlophone Records E10516-7):  
1. Overture Miniature.  
2. Marche  
3. Danse de la Fee Dragee.  
4. Danse Russe Trepac.

God Save the King.

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

- 5.30 p.m.: Children's song service conducted by Big Brother Bill.
- 6.30: Relay of service from Knox Church (Preacher, Rev. Tulloch Yuille; organist, Mr. Roy Spackman).
- 7.45: Studio concert of selected gramophone items.
- 9.15: Close down.

## What of 1928?

THE following is how David Sarnoff vice-president and general manager of the Radio Corporation of America, sums up the achievements of 1928:—

The radio art in 1928 largely emerged from the period of discovery to the application of electrical and engineering principles already developed in the laboratory. Chief of these developments was the perfection of the A.C. valve.

The use of radio in the home has been reduced almost to the simplest terms. The new A.C. valve has stabilised the operation of the modern receiving set. A practically inexhaustible source of power has been made available for radio from the electric light socket. Problems of installation, operation, and maintenance have been simplified. Other refinements have been in the direction of uncontrolled tuning processes and better tonal qualities.

Further fundamental progress in radio must await the results of continued research into the wave channels of space. Our vision has been widened by the exploration thus far of shortwave channels. But there are

many problems to solve. We have not yet plumbed the full possibilities of shortwave transmission.

Until research determines the best channels of transmission and experiment teaches us how best to utilise them, television, despite technical progress made, must remain primarily a laboratory development. Demonstrations made during the year, however, showed marked progress in the electrical and mechanical components of sight transmission.

A PETITION has been sent to the B.B.C. asking for a large increase in the Welsh programmes pending the provision of a Welsh station. It is said that there are 150,000 people who cannot understand spoken English.

DR. J. A. Flemming, the inventor of the first type of valve and a scientist known to all the world, has accepted the presidency of the Television Society, England.

IN order to avoid interference from the Continent, the B.B.C. has made plans to operate all its relay stations on the same wave-length. The programme broadcast will generally be that of Daventry.

# 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.

## "Maori Places and Names."

PERMIT me to record my very great appreciation of the lecturette by Mr. H. M. Stowell, on "Maori Place Names and Pronunciation." Coming from such an authority, it is especially valuable. I am eagerly looking forward to the next instalments. 2YA comes in well on my set: a cat's whisker crystal with bar amplifier. We use two headphones. I have tried a loudspeaker, but the tone was too low. At times we have to cut down the volume on the phones. We enjoy your programmes and the freedom from the low comedy element (although the "Story of Lady Godiva" comes near it); and rough talk, makes them all the more enjoyable. I am writing to Mr. Stowell, thanking him for his recent address. Not knowing his habitation, I have addressed it care "Radio Record." With best wishes.—A.P.G. (Heretaunga).

## Revise the Time Table.

I WISH to make a suggestion with regard to the arrangement of broadcasting periods at present carried out by the various stations. I am sure that the children's hour, viz., 6 until 7 p.m. is too late as most of the smaller ones should be in bed by 6 p.m. Their hour would be more suitable from 5 until 6 p.m. and I think that most parents will agree with me in this. The afternoon concert from 3 until 5, which are to my mind the most enjoyable of all, being gramophone records well selected, are of little benefit to us who live in the country and are out and about on farms all day. I do not advocate doing away with the afternoon concert, but in order that we country listeners-in should get a chance to hear lighter dance music, a dinner-time service, say, from 6 until 7.30 p.m., should be put on with the news service from 7.30 until 8. This dinner-time music would, I am sure, be well received and appreciated, especially if it was not too classical, as I am afraid most of the evening concerts are. It would be most pleasant to be able to sit down to dinner listening to good orchestras after a hard day's work. My idea is as follows:—5 until 6 p.m., Children's hour; 6 until 7.30 p.m., dinner-time music; 7.30: until 8 p.m., news session.—SHEEPFARMER.

## "Howling Valves."

CAN you inform me what measures can be taken to suppress the above? For some months now listeners in this district have had all programmes on an average of five nights a week terribly distorted or wholly cut out by one particular set which is in a state of continual oscillation. Besides this the operator of the set is continually twisting dials, running through the whole broadcast band, and never staying on one station for more than five to ten minutes at a time, so that other listeners are unable to get clear of him no matter what station they go to.

The writer has on behalf of others and self made a complaint to the telegraph engineer of the P. and T. Department, but was informed that unless definite information could be laid against the offender nothing could be done by the Department. And even though we were able to locate the set the Department could only remonstrate with the offender and endeavour to persuade him to neutralise his set. Situated as we are here, some 140 miles from 4YA, our nearest station, we have quite sufficient to contend with in natural disturbances without this sort of thing, and unless some means can be found to stop wanton howling and dial twisting I am afraid that March 31 is going to see a drop in licenses in Invercargill.

Apart from this the writer has no complaints against radio, and otherwise reception here has been very good, with very little static during the summer months. 2YA is especially good, although the extra daylight makes it about 8 p.m. before we can tune him in, while 1YA can also be fairly well relied on. 3YA is seldom heard, and 4YA, while always very good during daylight, is often marred by fading and general loss of volume on the approach of and during the evening sessions. The Anssies have not been brilliant for the last two months, but last night, 15/1/29, they were coming over in great style and quite free from static. The Japs are frequently heard by some listeners, but not much from the American side.

The programmes from the four YAs are on the whole quite satisfactory and greatly appreciated by the writer and friends. We hope for as good, if not

better, during 1929.—LICENSED LISTENER (Invercargill).

ANSWER: Yes, definite steps can be taken to prevent this howling nuisance. As it appears in this case the identity of the owner of the set is known there should be little difficulty in preventing further annoyance. According to regulation 59, any apparatus that unduly energises the receiving antenna is illegal and can, unless it is made to conform with the regulations, be compelled to cease operation. Now in this case it certainly appears that the receiver is unduly energising the aerial and thus making itself a nuisance to the neighbours. The steps to be taken are to lodge a complaint to the District Radio Inspector, stating that the set in question is infringing the regulation and causing general disturbance, and requesting that it be made to conform with the regulation or that it be prevented from operating.

## Auckland Notes

(By Listener.)

1YA gave us what may be termed a "super-programme" on Tuesday evening. The talented "Lyric Four" were the chief contributors in concerted and individual items, grave and gay, classical and popular, with the irrepressible "Mac," providing humour, which, however often it may be repeated, never grows stale. It would be well worth while if 2YA could secure this quartet for a Wellington broadcast on some suitable occasion. Miss Christina Ormiston's vocal numbers, and Mr. Eric Bell, in pianoforte items added to the strength of the programme, while our little orchestra also did its bit, and did it well. Mrs. Macandrew was the accompaniste. Further programmes of this type will make Auckland the most popular of the New Zealand stations.

A WRESTLING contest lends itself to broadcasting description even more so than does a boxing match. For the third time in the last two months 1YA worked overtime and devoted its usual silent night to a description of a bout which drew a crowded house at the Town Hall. Incidentally previous broadcasts must be regarded as the main advertising medium which brought this crowd together on what was the hottest and most stifling evening of the year. Mr. Hutter gave a very graphic account of the struggle between Kilonis, who somehow or other does not get too good a hearing from the Auckland public, and Sunni, the much lighter Indian who opposed the Greek. Unfortunately, the big crowd also seemed delighted to seize the op-

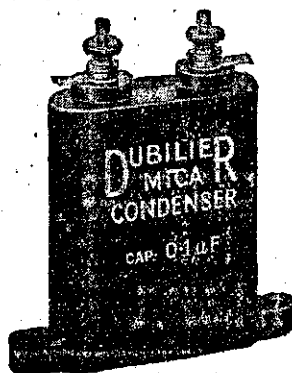
portunity of broadcasting itself, and there were times when it was almost impossible to hear the announcer's description above the wild shouts, cheers, and booing to which the spectators gave full-throated vent. Still, even this din added picturesqueness to the imagined scene within the ring.

On Tuesday evening the Auckland station sent out another family "S.O.S.," the call being for a resident of Waitara, to whom the information broadcast would doubtless be immediately conveyed. This high-speed and effective means of getting into touch with individuals in cases of urgency is one of the benefits which radio confers upon the public—a benefit that is appreciated fully only by those who have cause to bless the "radio call" which has brought them hurrying, perhaps, to a deathbed. Many people are of the opinion that had broadcasting been utilised when the initial discoveries were made in connection with what is known here as the "Elsie Walker Mystery," information would have been supplied that would have assisted materially the ends of justice.

"WHILE I had it, I thought it was little better than a toy in the house. I was not a listening fiend, but occasionally I would tune in and enjoy a programme from either Auckland or Wellington. Now my set has been taken away to the South Island, and I am beginning to realise my loss. There is undoubtedly something missing in the house, and that something is the availability of radio." These were the remarks of an Auckland professional gentleman whom the writer met on his way to order another set, which he wanted to be delivered immediately. This time nothing would satisfy him but the "latest electric." He secured it that very day.

THOUGH the time of year is the worst for daylight reception, we are hopeful that it may be possible to relay in Auckland 2YA's promised description of the Cook Strait swim which is to be attempted within a few days. New Zealand has not yet really tasted the "Cross-Channel" excitement that has been experienced in the Homeland, but we are looking to Wellington to give us all the vividness of the forthcoming attempts to cross the treacherous tide rips that swirl between our two islands. At the time of writing this no definite announcements re broadcasting have been made, but we know that the Broadcasting Company will rise to this occasion as it did to the historic one when the Tasman was flown.

RECENT investigations prove that the Aurora affects transmission and reception very markedly.



## DUBILIER HIGH VOLTAGE CONDENSERS

Type L.A.A. 350 Volts D.C.	1 to 8 M.F.D.
Type L.A.C. 600 Volts D.C. Max.	1 to 8 M.F.D.
Type L.A.G. 1000 Volts D.C. Max.	1 to 4 M.F.D.

Ask for Prices.

ACCURATE AND RELIABLE.

**A. E. Strange** 404 Worcester St. CHRISTCHURCH

## Are You Building the "Pentode" Three ?

LET US QUOTE YOU FOR COMPONENTS REQUIRED.

## CROSLEY RADIO

5-VALVE SHIELDED, SINGLE CONTROL, MODEL 5-50. Complete with Valves, Batteries and Loudspeaker, from £21/6/6.

6-Valve Set, as above ..... £24/17/6  
6-Valve Crosley Bandbox, complete ..... £31

Ask for a Demonstration.

**G. G. MACQUARRIE LTD.**

95 WILLIS STREET, WELLINGTON.

CROSLEY RADIO SALES AND SERVICE

'Phone 45-865.



# Children's Sessions

## AT 1YA.

**TUESDAY, JANUARY 29.**—Uncle Pat will while away the hour to-night with stories, jokes, and good advice. Listen to Uncle Pat's advice, it is worth following. Cousins will provide musical items.

**WEDNESDAY.**—We find that after all Uncle Tom will not be back with us till next Wednesday. But what a lot he will have to tell us when he does come. In the meantime, we will have one of our other uncles in charge.

**THURSDAY.**—Peter Pan has with him some cheery little performers, and the Gramophone Man, so there'll be a happy hour for all.

**FRIDAY.**—Good evening, Aunt Jean and Nod. We hope you have your usual store of interesting stories and songs. And, of course, there will be Birthday Greetings.

**SATURDAY.**—Here's Cinderella and also cousins who will sing and recite. Yes, and there will be conundrums and catches. Put your earphones on and listen hard.

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

## AT 2YA.

**MONDAY, JANUARY 28.**—For this hour two little pupils of Miss Marjorie Meier will play pianoforte duets, and Cousin Marjorie will sing. Uncle Jeff will send greetings.

**TUESDAY.**—Uncle Jim will be in charge, and the clever little pupils of Miss Ivy Hoare will give another of their enjoyable programmes.

**THURSDAY.**—Three new cousins to-night will play pianoforte solos and duets. Also, Cousin Gwenda is coming to sing again, and Aunt Gwen will have a little story to tell.

**FRIDAY.**—Two cousins, whose music always gives so much pleasure, will be with us to-night—Cousin Ailsa, and Cousin Zac. Big Brother Jack will be here with Robinson, and will send birthday greetings.

**SATURDAY.**—Pupils of Mrs. Percy Woods will recite some more of their lovely poems, and give a sketch. Uncle Toby and Aunt Gwen will greet you with birthdays and stories.

**SUNDAY.**—Uncle George will conduct the children's Song Service this evening, assisted by the Maranui Sunday School Choir, under Miss M. Vanster.

## AT 3YA.

**MONDAY, JANUARY 28.**—"Scatterjoy's name brings visions of all that is happy and bright—and this is Scatterjoy's night with the children. Tune in, and listen to the music, and songs, and recitations of happiness.

**WEDNESDAY.**—Big Brother, back from his long holiday. So let us all be ready with a big, loving welcome for him. Songs to be sung by Cousins Joan and Phyllis.

**THURSDAY.**—Here is Uncle Johnny, our young uncle, taking Uncle Hal's night to-night, and Cousins Geoff, Pat, and Joan, telling us all sorts of good things.

**FRIDAY.**—To-night? Why. Bother Bill, with his funny-bone in the right place—so listen to his jokes and funny stories. Songs by Marjorie and Isobel.

**SATURDAY.**—Chuckie and Aunt Pat, as usual, with a bag-full of new songs and music—so "Tune in on Happiness," our new song!

**SUNDAY.**—Children's Song Service, conducted by Uncle David, hymns to be sung by the children from the Edgeware Road Methodist Sunday School.

## AT 4YA.

**TUESDAY, JANUARY 29.**—The boys of the Anglican Memorial Home have prepared a programme for to-night's session that will be worth your listening to. Big Brother Bill is going to talk about beaks and noses. What bird has the largest beak? What animal has the funniest nose? Listen-in and hear.

**FRIDAY, FEBRUARY 1.**—Do story book dragons live to-day? Did they ever live at all? There is an answer to these questions, of course, and it may not be exactly what you think. The best way to settle it is to listen to Aunt Shiela and Big Brother Bill to-night, and then you will know all about the matter. Boys from the Glendinning Memorial Home have prepared a stunning programme.

## DX Club

### Getting Incorrect Call Signs.

HAVING noticed a listener writing in last week's "Record" regarding an American station just above 2BL, and stating the call to be WGN1, but as luck happens, there is no such station under that call in U.S.A. This station is WENR, Chicago, and which some time ago was heard very consistently on a lower wavelength, testing, under the call of 9XF. As regards a DX club, my opinion is that before a new station received by any listener is sent, he should have some definite grounds to work on, such as, say, witnesses confirming reception of such stations, as some time back I noticed a statement made by a listener to the effect that he had received 2BE, Sydney, and on writing to that station I received a reply to the effect that 2BE was burned down some months ago, and a start had not yet begun to rebuild, and yet a listener stated he had picked it up. Just a little imagination carries one a long way at times. —WILLIAM TERRILL (Waitara).

### Opening of Suva.

I NOTICE in your issue of 11th inst. a query from Mr. N. C. Winstanley, Picton, regarding a station transmitting on 2FC's wavelength, which was picked up by him on New Year's Eve. I, too, logged this station, tuning in about 10 p.m., but it was some little time before I could get the station calling, which, however, proved to be Suva. Evidently the station was being officially opened on New Year's Eve, as several addresses were given by prominent residents, but owing to more or less interference by 2FC, it was difficult to get clear reception. However, I trust the information given will be of use to Mr. Winstanley. . . . I have been a regular reader since the first issue, and wish to compliment you on the very many excellent articles which have appeared, and proved most helpful to me.—E. V. CLAY (Auckland).

A COMPLAINT is to hand from the Lyall Bay area of excessive valve howling on top of 3YA, Christchurch, on Wednesday evenings when 2YA, Wellington, is silent. Most of us wish the trouble were confined to the Lyall Bay area. In practically every part of Wellington bedlam breaks loose on Wednesday evenings, and not a few listeners are so disgusted with this uproar of howling valves that they close down and go to the theatres or picture shows on that evening.

## Testing of 2YA

ON Thursday, January 31, the concluding night of the tests conducted by 2YA, the two systems of control will be in force. Both should therefore experience the same atmospheric conditions.

For the first hour, from 8 till 9 p.m., the control will be by Master Oscillator Tube. There will be an interval of about 10 minutes while the control is changed to the crystal, after which the transmission for the remainder of the session will be by that system.

The tests which are being held in connection with the two systems of control at 2YA will conclude on Thursday, January 31. The schedule for the remaining period will be:—

Saturday, January 26: Crystal.  
Sunday, January 27: Master Oscillator Tube.  
Monday, January 28: Crystal.  
Tuesday, January 29: Master Oscillator Tube.  
Wednesday, January 30: Crystal.  
Thursday, January 31: Master Oscillator Tube till 9 p.m., followed by crystal control.

## In Canada

### Regular Service from Winnipeg

THOSE whose short-wave receivers can tune down as low as 25.6 metres will be interested to know that the Winnipeg station, CJRX, has now started a regular broadcasting service. The present time of operation is from 10.30 a.m. to 12.30 p.m., New Zealand time. The power varies from two to ten kilowatts, and Mr. D. R. P. Coates, the manager of the station, anticipates that signals will be audible in New Zealand.

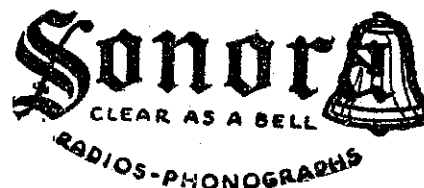
Reports of reception would be appreciated by Mr. Coates and should be addressed to him at Room 1018, Grain Exchange Building, Winnipeg, Canada.

MR. J. H. OWEN, ex-president of the Wellington Radio Society, recently visited 5XX, Daventry, England. He reports that it operates on a wavelength of 1562 metres, and uses 192,000 watts power. There are twenty-one valves in the transmitter, each valve costing £70, with a reserve stock of 30 valves always on hand, the total value of the valves, alone, being £3570!

## Radio in the Antarctic

WIRELESS is doing more to conquer the vast unknown wastes than is generally realised; it is bringing the desert and the pole nearer civilisation and is rendering less difficult and less arduous the task of the explorer and the colonist. A few years ago the polar regions were looked upon as a cemetery for the living—there man went to bury himself for a long and anxious period. Certainly the physical conditions of these regions has not changed but man, in his conquest of Nature, has evoked a means of subduing even these formidable spaces—wireless.

So Commander Byrd finds things "not so bad after all," as evidenced by this quotation:—"Radio is one thing that at the moment impresses me. We are sitting snug and comfortable in our little four-man tent with the Eskimo dogs curled up outside. We have a temporary radio aerial up with a bamboo mast stuck in the snow. It is a wonderful thing that I can sit out here on this God-forsaken hunk of ice in a small tent giving instructions for operations to my shipmates, some of them 2700 miles away, and what a comforting thing it must be for those on the City of New York who, but for radio, would certainly be worried about us."



Call and hear the latest model SONORA. Unequalled for quality of tone. Buy a SONORA and you will really enjoy Radio!

Arrange for a demonstration TO-DAY

**F. J. PINNY Ltd.** 58 Willis Street, WELLINGTON.

# Methods of Improving Reception



It is intended this week to run over the whole radio installation, from aerial to loudspeaker, giving a summary of all likely sources of trouble and hints for their remedy. Unless a really efficient receiver is used, distance work is out of the question this summer, but a great deal of improvement, both in regard to the sensitivity and tonal qualities of the set, can be obtained by an occasional overhaul. It is difficult to write an article that will apply to every individual set, so likely faults that can occur in the more popular circuits will be enumerated. Even if the reader has an efficient commercial receiver, the accessories he uses, batteries, valves, etc., need occasional inspection, and an instrument will be described for checking the batteries and valves irrespective of the receiver.

## The Aerial and Earth Systems.

COMMENCING with the aerial and earth system. The strength of the broadcast reception depends, in the first place, entirely on the amount of energy fed into the receiver from the aerial. This is quite evident. Unless a really powerful receiver is used, good reception cannot be expected from a poor aerial. Length of aerial, except in the case of a crystal set, has very little bearing on aerial efficiency. A longer aerial certainly does collect more energy than a short one, but other factors are brought into play, and these "other factors" counterbalance any improvement gained with a long aerial. In England the greatest length of aerial and lead-in permissible is 100ft., and in practice an aerial of this length proves most efficient. This is speaking of the conditions most likely to be met in the average home installation.

The greatest point to note regarding aerial efficiency is the effective height. This is not always height from the

ground, but distance from nearby conductors, such as trees, buildings, etc.

It is said that to increase the effective height of the aerial by 12ft. is to add the efficiency of another valve. Many listeners, not satisfied with their distant reception, buy or construct extra H.F. boosters. Besides being a rather expensive item in the first place, the extra valve needs feeding, and the majority of such boosters add another tuning dial to manipulate.

**THE hot, dry summer, with its bad radio atmosphere, is with us, and, unless the receiver is in first-class condition, the owner will lose much of the enjoyment derived from radio. In this article "Pentode" describes how the amateur who knows little or nothing about his receiver, may set about tuning his set to maximum efficiency.**

If no tuning dial exists, then the circuit employed is such that much amplification from this extra accessory cannot be expected.

Before speculating in more sensitive apparatus overhaul the aerial. If practicable raise it to 40, 50, or even 60 feet. The writer spent most of last summer travelling around the East Coast. In several cases set owners were advised to raise their aerials. As a result, stations that were inaudible previously came in on the speaker when the set was connected to the higher aerial.

Examine and clean the insulators. In districts near the sea especially, as the salt is carried with the mists that blow in from the sea and collects on the insulators. During the evening, moisture will collect with the salt and form a conductor through which the minute high frequency currents can leak away to earth.

Give the earth, too, all the attention it deserves. Remember that ord-

inary iron piping will soon rust when buried, and iron oxide is a bad conductor of electricity. In preference to a solution of salt for the earth, pour a solution of bluestone, copper sulphate, around the pipe, as this tends to plate the exposed iron with metallic copper. Besides being illegal, gas pipes make a poor earth connection, as the joints are seldom electrically good. Red lead and tow are not good conductors.

panel and baseboard can be readily taken out of the cabinet, peep inside and inspect all the soldered joints. Some fluxes used for soldering tend to corrode the copper after a few months' exposure. The only remedy here is to thoroughly clean the joint and resolder with fresh wire if necessary. Certain kinds of insulated sleeving used on commercial receivers is inclined to absorb moisture and grow a fungus. If this is very bad the whole set needs removing, and is best put into the hands of a practical dealer.

There are small adjustments, however, that can be done by anyone. Clean the variable condensers and solder a pigtail flexible connection between the moving plates and the frame. This will remedy most of the crackling noises experienced when tuning in.

Because a 2 meg. grid leak is universally used is no indication that this suits all valves. For distance work a higher resistance 3 to 7 megohms will usually be found more suitable. If stability is not obtained by neutralising the high-frequency waves, test all grid resistances with a pair of 'phones and a 4½ volt battery. If any are found to be defective consult the local dealer as difficulty may be experienced in obtaining this resistance already wound. Several commercial machines use this method of damping, and defective resistances are a common source of trouble. The symptoms are instability and absolute lack of sensitivity.

## Testing Ganged Condensers.

If the receiver employs ganged condensers, each of the stages should be tested to see if they are all in resonance. To do this accurately needs special apparatus, but a right indication can be obtained by the following procedure.—

Make sure that each condenser on the common shaft is readily accessible. Tune in a distant station to maximum strength, and insert a piece of mica about 1-16in. thick between the fixed and moving vanes of each condenser separately. Mica has a higher dielectric value than air and the effect of a mica separation between the plates is to slightly increase the capacity of that condenser. No metal parts must be touched with the hands and the mica should preferably be mounted on the end of a short length of ebonite rod, similar to a fish slice.

If the signal strength is increased when the mica is between the plates of any one condenser, carefully bend the end vane, whether fixed or moving, slightly towards its neighbouring vane.

## The Arrester.

THE insurance companies demand the use of a lightning arrester. Whatever make is purchased, always examine carefully before installing. At the back is usually found a cavity that has been filled in with wax. See that the wax is quite intact, and is not loose in the hole.

The arrester is usually screwed to the wall outside the house. Between the component and the wall is a good trap for moisture, and if the inside of the arrester is damp woe betide the chance for D.X. results.

If the wax is loose or cracked put the whole arrester in the oven, unless it is made of ebonite or bakelite, and heat up sufficiently for the wax to melt and drive off any moisture inside.

Inspect the lead-in tube and clean the joint between lead-in terminal and aerial. A touch of solder will remedy any trouble here for ever. Many cases have been brought to the writer's notice of set owners using twisted flex for connecting between the aerial and earth of the set to lead-in and water pipe. There is no doubt that this is still done in various homes. This is a deadly practice, even though it is much neater.

Aerial and earth wires must be kept separate if good results are to be expected.

## Inspecting the Receiver.

NOW let us turn our attention to the receiver itself. In the commercial sets very little can be done as they are usually built of components with very little latitude for adjustment. If the

## Your Radio Set

Can be spoilt by the Valves used, or you can obtain additional

## tone AND POWER

Together with greater distant reception by using the "OSRAM."

Write for Free Booklet illustrating the various types of OSRAM VALVES.

THOS. BALLINGER & CO., LTD.

58-62 VICTORIA STREET, WELLINGTON.

"Where the Quality Goods are Sold."

## POWER AMPLIFIERS

Suitable for Theatres, Dancing, Public Addresses and Domestic Use.

Amplifies Gramophone Records and Radio Reception. Total A.C. operation.

Prices from £30, Complete.

PARTICULARS: WRITE P.O. BOX 654, WELLINGTON.

L. H. WRIGHT

Radio Specialists

Of course if small compensating condensers are used in the set, this is not necessary, as any discrepancy is made up by final tuning on the midjet condensers.

#### Methods of Coupling.

**P**ASSING to the audio-frequency side, there are two or three methods of coupling to be considered. Transformer coupling is most popular; resistance and impedance coupling can be considered together, as they are subject to similar failings. It is on the audio side that the tonal qualities are mostly developed, and it is this end that so many receivers fall short of perfection.

It is possible to get almost perfect results from either of the above methods of intervalve coupling, and it is a mistaken idea to think that better quality can be obtained using resistance than transformer coupling. Especially is this a fact when a study is made of the different methods adopted by the average constructor when using a resistance coupled amplifier.

In the first place all high frequency currents must be rigorously excluded from the low frequency amplifier. After the detector valve must be a suitable by-pass condenser from the plate to the earth. If it is possible to insert a RF choke in the plate lead between the plate or reaction coil and the audio-transformer or resistance the tonal qualities will be greatly improved.

#### Transformers.

**A** WORD on transformers. During recent years manufacturers have been experimenting with and improving their instruments until they have obtained a uniform amplification over a very wide range of frequencies. This has been brought about merely in the design and use of special forms of iron compound. Cheap transformers and ones that are several years old were not made on any scientific principle and in use give distorted and unfaithful reproduction.

No casual test can be applied to see if the transformers are efficient, and the owners of any set that utilises cheap transformers is well advised to substitute for components made by a firm of standing. If replacements are undertaken, carefully tag each wire directly it is unfastened from the old transformer, so that no mistake can be made when the new one is substituted.

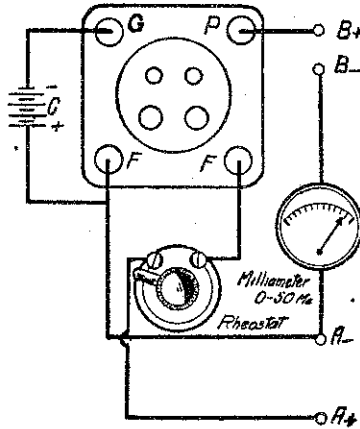
#### Resistance-Coupled Stages.

Receivers employing resistance, or impedance, coupling are liable to one or two serious breakdowns. In the anode of each valve is either a resistance or a choke. If either are at all defective, the anode current cannot get to the valve which refuses to operate. The coupling condensers also are the cause of 75 per cent. of the trouble experienced with these forms of amplifiers. All coupling condensers have to be of good quality and free from even the slightest leak. Only reliable mica condensers should be used, and even these checked over with a 90 volt battery and a pair of 'phones. After the first loud click no more should be heard until the condenser is discharged.

The grid leaks, too, sometimes cause trouble. Usually the valves are one meg.,  $\frac{1}{2}$ -meg., and  $\frac{1}{4}$ -megohms for first, second, and third stages respectively, and these can be tested roughly with a pair of 'phones and a 22½ volt battery. If a constant subdued whistle is present

throughout the broadcast, and it is found to be due to slight oscillation on the audio frequency side, this can generally be remedied by connecting a  $\frac{1}{4}$ -meg. grid leak in series with the grid leak of the first audio frequency valve. This subdued oscillation often occurs when using two transformers of the same make and type.

Having gone over the set bit by bit, all that remains to be examined are the valves, batteries, and speaker. Let us try the batteries first. When testing the B battery with a high resistance voltmeter, good class instruments are usually of this type, always take the



*A Simple Valve Tester.*

reading after the set has been in use for an hour or so. Dry batteries quickly recuperate when not in use, and a high resistance instrument gives a reading in excess to that of the actual voltage, as applied to the set. The surest way to test an accumulator is by the use of a hydrometer. Two volts per cell is maintained right to the bitter end, but a hydrometer indicates the state of the change at any time.

Speaking to the owners of small amplifiers, merely 45 volts B voltage cannot give good quality reproduction. For an average-sized room even 90 volts is not enough. It is said, with good reasons, that real quality cannot be expected with voltages lower than 300 volts.

Some readers may take exception to this, saying that their reception is perfect with only 90 volts. The reply is simple. It is well-known that a moving coil speaker reproduces all orderable frequencies with most fidelity. Try to operate a dynamic speaker with merely 90 volts, using but a single valve in the last stage. Radio assumes a totally different complexion when really good quality is produced, and it pays the listener to keep his batteries right up to scratch, substituting new ones for those in which the voltage has dropped more than two-thirds the rating.

C. batteries are inclined to be neglected. The public are told that these batteries last from 12 to 18 months, and leave it at that. Poor insulation of transformers, damp battery cable, etc., will often reduce the life of a C battery to merely a few months, and these should be tested with a voltmeter. A run-down C battery can account for distortion, paralysed valves, and quickly run down B batteries.

#### The Valves.

**N**EXT come the valves. After two years' service it can be assumed that a valve has done its duty, and, al-

though the filaments may be intact, these veterans can be put aside, to be called on in case of emergency. A diagram is attached for a simple method of checking over the valves, and those that have lost their emission through old age. The grid bias battery in dotted lines can be inserted to check over the characteristics to see if they conform to those given by the makers.

Pay special attention to the last valve. If good quality for an average-sized room is required, this must be of the power of semi-power type.

#### Loudspeaker.

**F**INALLY, there is the loudspeaker that demands a little attention. The bell of a horn type seems to be a magnet for little pieces of paper and chips of wood, especially in the hands of the young folk. Take off the horn and shake out any dirt that is resting on the top of the diaphragm. This is a tip to the owners of the short horn type of speakers. Obtain a length of brass or lead tubing of the same dia-

meter as the small end of the horn, and about 12 to 15in. long. Unscrew the horn from the unit, and insert this length of tubing between the two, fastening with small lengths of rubber tubing slipped over. This increases the length of the horn, and prevents a great deal of the rattle and tinny effect so often noticed in a horn speaker.

Unscrew the unit, and inspect the magnets. If these have lost their magnetism, it is well worth the trouble and expense of getting them remagnetised. If the speaker ever has the misfortune to burn out during the early evening, quite good results can be obtained if the burnt-out coil is located and short circuited, running temporarily on one coil only. It is very seldom that both the coils go simultaneously.

A small hole about 1-16in. diameter, drilled in the centre of the diaphragm of a horn type speaker, will often make quite a difference to sensitivity and tone. With the latest cone types of speakers very little adjustment can be



**British**

**Built**

**Batteries**

*Are a Guarantee of Long Service*

We carry large stocks of Batteries. All shapes and sizes, to suit all purposes.

**MOTOR CAR**  
**RADIO**  
**LIGHTING**

Our advice is freely given on any of your Battery troubles.

WRITE FOR CATALOGUES.

All makes of batteries repaired, recharged, rented. Service Vans cover City and all Suburbs Daily.

**GRUARS BATTERY HOUSE**

**THE BATTERY PEOPLE**

**WELLINGTON**  
9 Majoribanks St.  
'Phone 20-937

**WANGANUI**  
Ingestre St.  
'Phone 4966

**AUCKLAND**  
109 Albert St.  
'Phone 45-696

done to the unit. If a cone of the free edge type is used, it is well worth the time and trouble taken to make a baffle. A hole cut in a piece of wood, four-ply is quite suitable, the size is the outside of the cone, and the speaker fastened with either side of the cone on opposite side of the baffle. The tone is at once noticed to be richer, and the individual instruments of an orchestra come out in their true colour.

WHEN a tuning-coil is used inside a screening-box it should be placed centrally, not only as regards its distance from the four sides, but also from the top and bottom, or otherwise there will be unnecessary damping.

IN running a long length of wire from the set to the loud-speaker, be careful to keep this a considerable distance from the aerial lead-in, as if the two are too close together a persistent and annoying howl may develop.

### Big B Batteries Pay.

IT pays best to purchase the large sizes of B batteries, where several valves are in use, for as a rule the battery of double milling ampere capacity will last more than twice the time of the smaller one on the same work, as the larger the battery the less will the strain of a given demand be felt.

### Holes in Sheet Metal.

DIFFICULTY is sometimes experienced in drilling holes in sheet metal used for interstage screening, especially if the material is thin. As a rule it will be found easier to punch the hole; provided a soft metal such as copper or aluminium is used there is no need for any special tool, as a rod of steel or even brass with one

end filed square will serve quite well. It is essential, however, that the sheet in which the hole is to be made should be rested on the end grain of a piece of hard wood or similar material.

### Regarding Screen Grid Valves.

WHEN designing a receiver using the screen grid valve as a high-frequency amplifier, make sure of the connections to the small cap on the top of the valve. In the UX222 American valve the control grid is connected to the grid pin on the base. With the A442 valve manufactured by Messrs. Philips, Ltd., the small cap is connected internally to the plate electrode. The plate pin on the base corresponds to the screen on which a positive potential is applied. Reference to the specifications given by the makers is the safest way, before starting on the construction. This will also act as a warning to those who contemplate changing from one make of valve to the other.

### Burning Soldering Iron.

YOU will find that the soldering iron soon becomes burnt if left too long in the gas flame, and all the tinning becomes oxidised. If this has happened badly, it is necessary to remove the coating with a rough file, and this soon destroys the iron. If, however, a "tin can" be used as a small "furnace," the burning is, to a large extent, avoided. The tin can is placed over the gas flame, and becomes red-hot, the "iron" being inside. Two iron wires can be placed across the can for the purpose of supporting the soldering iron. The tin can should not be too large, or the iron will not get sufficiently hot. It should be, roughly, a very loose fit for the iron.

### Stopping Noises.

AS a rule, it is usual to employ a variable condenser on the short waves for controlling reaction. It is impossible to keep such a condenser completely free from dust, and any small particles which become lodged between the two sets of plates will cause a crackle and scraping noise as the condenser spindle is turned.

This trouble may be removed by inserting a fixed condenser in series with the variable one. The value of this fixed condenser may be in the neighbourhood of .001, although a much smaller one can be employed if the variable reaction condenser is found to be too large. Incidentally, such a condenser acts as a safeguard for the valves in the event of the variable condenser becoming shorted, in which case it is possible for valves to be burnt out. As a matter of fact, it is desirable to insert a series condenser for the above reason even on sets intended for reception on the higher waves.

### Regarding Power Valves.

THE writer has many times had invitations to hear a friend's receiver since he installed a power valve, only to find that the new valve has been inserted with no other alterations to the battery connections. The limit was reached when a commercial receiver, with no provision for a C battery at all, was fitted with a large power

valve in the last stage, and 180 volts applied from B batteries. The interesting point in this case was a burnt-out speaker, as a result of the excessive current taken by the valve. These little incidents are surely done in ignorance, but writers must be excused for apparently making mention of the same hints week after week.

When using a power valve, consult the leaflet always supplied with the valve, and do not depart from the use of grid bias, as specified, for the particular B voltage available.

ALTHOUGH the well-known and satisfactory form of grid leak holder is used on nearly all valve receivers, it is admitted by most listeners that, if inaccessibly situated, it is often very difficult to remove cartridge types of leaks from these holders. At the recent British wireless exhibition an improved form of grid leak holder was shown. This consisted of a small ebonite base, into which one end of the leak was slipped, and supported by the metal contact end in a vertical position. A light metal spring cap, connected by a short flexible wire to the second terminal of the base of the grid leak, is fitted over the free end of the leak to complete the circuit.

### Loose Parts.

MECHANICAL parts which have become worn often cause noises in receiving sets. The vernier drive shafts of condensers often become worn; sometimes this also happens to the bearings of the vernier plates. When this occurs the contact between the shaft and the condenser may seem to be perfect, yet the set when critical tuning is necessary will not respond properly. There is a scraping noise or scratching sound heard that is often wrongly blamed on a loose connection in the wiring. Condensers having proper "pigtail" connections do not suffer from this trouble.

### Gramophone Pick-ups.

NOW that the Igranic pick-up has been reduced to £2 10s. complete with volume control and plug adapter, it brings this accessory within pocket range of all. And it certainly is a very efficient little component. The manufacturers of the well-known Lowe radio devices have recently put on the market the Lowe gramophone pick-up. This costs £2 2s. and on test reproduces a wide range of frequencies. The small rubber ring attached makes it readily adaptable to any type of tone-arm. Being light in weight (barely 4oz.), it is extremely light on records.

### Converting a Pocket Voltmeter.

THE ordinary pocket voltmeter may be easily made into a panel instrument by first removing the back cover (which, with the aid of a screw-driver, will slip off easily), and boring a hole through it. A metal thread screw is passed through this, and the lid fastened on again. If necessary, the head of the screw should be filed down, so that it does not make contact with the moving arm, or with the electro-magnet inside the meter. A hole is now drilled in the panel, to take the instrument, and, if desired, the leads from the voltmeter may be taken to two convenient terminals.

# 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. East, 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.
GREBE, ROGERS, CROSLEY, RADIOLA AND KING SERVICE .....	E. Dixon and Co., Ltd., Hawera.
SIEMENS BATTERIES, RADIOLA DEALER AND SERVICE .....	G. C. Carrad. 110 The Avenue, Wangarua.
PHILIPS VALVES AND APPARATUS	All Good Radio Dealers.



## REPLIES IN BRIEF.

**K.D. (Paekakariki).**—You do not say whether your set will oscillate or not, consequently we are at a loss to define your trouble. Try varying the condenser to the grid of the valve. See also replies to other correspondents that have been answered through these and the construction columns. If the set is correctly constructed, the rheostat will cut off all current passing through the valve.

## Success With Variometer Crystal Set.

**I** HAVE made the "variometer crystal set" (Vol. II, p. 26), I saw in last week's "Radio Record," and I can say that it is the loudest and best crystal set I have ever made. I left the celluloid out. What is the advantage of it? I also made a wooden frame for the stator, which I think is better.—**DONALD CIMINO (Blenheim).**

**ANSWER.**—The celluloid is used to support the coils, but other methods may be employed. The use of a wooden frame should be quite OK, providing the wood is properly dry. A coating of shellac would lessen the risk of a short across the wood.

## Squawking in 'Phones.

**I** HAVE just made a one-valve receiver, and notice that when I tune the variable condenser round to certain spots, I receive loud "squawking" noises. Could you please supply me with information as to what this might be?—**K.D. (Paekakariki).**

**ANSWER.**—Evidently there are too many returns on the tickler coil. Try a reduction in number.

## A Greasy Crystal.

**A** COVERING of grease will soon dampen the signals passing through a crystal. The thinnest covering of dust or grease is quite sufficient to prevent the received currents from flowing through a crystal. There are always thousands of dust particles flying about a room—even a clean, tidy room—and these may in time accumulate in sufficient numbers to cause the mischief. Also when adjusting the contact point on a crystal, or when taking it out of its socket to replace it by another, one usually transfers a minute quantity of grease to it. Everyone's hands are slightly greasy, and if they are constantly touching a crystal the latter will soon get greasy, too. It is a good plan to keep a small camel hair brush by you to dust the crystal periodically. Also, cover it up when it is not in use. A small cardboard box will serve the purpose quite well. To remove grease from a crystal wipe it gently with a soft, dry cloth. If you wipe it too vigorously small invisible particles of this cloth may adhere to it, thus providing another source of trouble.

## "Dud" Crystals.

**DON'T** throw your old and seemingly "dud" crystals away. They can be utilised by grinding them up into a coarse powder, mixing them with a quarter of their bulk of litharge and adding a small sprinkling of fine, clean iron filings. Mix the components of the mixture together very thoroughly and then make it into a paste with water containing five drops of pure acetic acid to every ounce. Spread the crystal paste on the surface of small copper or brass discs, and allow them three days to dry. The crystal discs will afford great rectification if they have been so prepared.

## Choice of Wire For Coil.

**I**N making up a set the constructor usually follows the specifications given, but in some cases this is not possible or convenient. It may be that he has on hand an amount of wire a couple of gauges finer or coarser than that specified, which he desires to use. Constructors should bear in mind that a point or two is not going to

**READERS** in difficulty, or who feel they are not getting the best from their crystal should send in their difficulties. They will be discussed in the Corner, that is providing they are not too particular to one case, when they will be replied to by post. If an owner has found a circuit he considers superior to the usual, send it in and if worth publishing it will be passed on to others. Remember, address all inquiries "Technical Editor," and mark the letters "Crystal Corner."

make much difference where a simple coil like that in the crystal set is to be employed. Generally speaking, 20, 22 and 24 gauge give the best results, and if the specifications say 20 gauge the constructor will not go far astray if he uses 22, though a few less turns will be required for the finer wire.

Likewise the number of turns; don't be concerned if the wire runs out, say, ten turns short of the number given, especially if tuning with a slider. If a condenser is used the tuning system is different, and the number given should be more nearly approached. If on tuning-in it is found that the slider brings in the loudest signals when it is at the end of the coil, a few more turns should be added. A soldered joint, provided it is a good one, will suffice to add a further length of wire.

If, when tuning with a condenser, the loudest point is at 100, add a few turns to the coil, but if the loudest reading is at 0 a few should be removed.

## Choosing a Crystal Set.

**WHEN** an amateur wishes to enter the ranks of the wireless enthusiasts in the orthodox manner he sets about constructing for himself a simple set, usually a modest crystal. In setting about his first attempt the constructor usually procures a diagram from a journal and sets about copying it slavishly.

In the greatest number of cases the would-be listener sets about selecting a circuit that will bring in other stations. He has heard some of his friends say that the bringing in of stations other than the local is no difficult feat; he may even have read in the "Re-

cord" where an owner of a crystal was able to log several stations "on good 'phone strength." He therefore sets about constructing that set which is the most selective and that for which the greatest number of distant stations are claimed. He is usually disappointed, as was the writer when he found that he could not get beyond the local.

The fact is that a crystal owner who is fully expecting to get beyond the local is expecting too much from his set. Even with the addition of an audio stage it is difficult to pass the local station.

Bearing this in mind it is wise in selecting your circuit to aim for volume more than selectivity, although in some of the YA centres where there is a good B class station, selectivity would be an advantage, though a crystal would have to be very selective to cut out say 3YA and bring in 3ZC.

Applying these principles to the actual choice of the circuit it will be apparent that a circuit using a single solenoid coil is to be preferred to the types of loose coupled circuits. The permanent crystal or the semi-permanent are to be preferred to the cat's whisker, while the use of a condenser is hardly necessary, an efficient slider being almost as effective, sufficiently so for the average amateur.

## Request for an Amplifier Circuit.

**I** WOULD like to know if you would supply me with a circuit for a one-valve amplifier. I have Galena's and Pentode's circuits, but would like to consider a few before I decide on which I will construct.—**C.R. (Newtown.)**

This correspondent has suggested a topic for the "Corner" which, it is believed, will interest a great number of crystal-owners—that is, the subject of amplifiers.

Comes a time when the owner of the crystal wishes to hear from the loudspeaker, and naturally he considers the means and ways this may be accomplished. The first step is to try and put the output of the crystal direct onto the speaker. Unless he is extremely fortunate, and lives under the shadow of a powerful broadcasting station, this will be an impossibility. The output of the crystal is that collected from the air, and is in no wise amplified. The crystal is incapable of amplification, it is purely and simply a detector as has already been explained in the "Corner."

Beginners will always look through all the new circuits to find a super-powerful one that can work the loudspeaker. In essence there is very little difference between the styles of circuits. The essentials are an inductance with a tuning arrangement to tune the aerial to the incoming waves, and a crystal to tune these waves down from rapid inaudible currents to slower audio currents, and a pair of telephones to translate the electric currents into movements of the ether which are perceptible to the ear.

Theoretically, there is only one circuit, the aerial coming into the coil passing through this resistance to earth, and setting up currents through the crystal which pass it on to the 'phones in a condition ready to be translated into soundwaves. The theoretical circuit is shown in diagram one. This has already been explained, and further explanation would be unnecessary reiteration.

**T**HIS series of notes will be continued in the next issue.

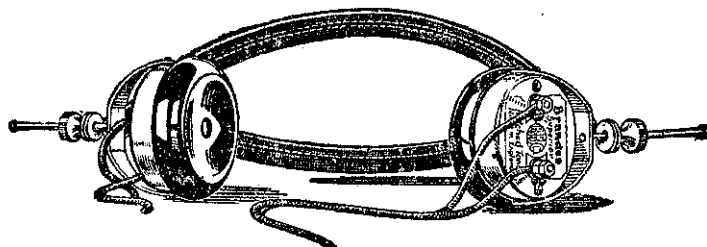
**I**N order to control volume by means of a potentiometer it is essential to use a high-resistance potentiometer of approximately the same ohmage as a grid leak. (The old-fashioned potentiometer as used for H.F. damping has a resistance of about 400 ohms, and is quite useless for volume control.)

# Our Crystal Corner

By "Galena"

# Brandes

The Name to know in Radio



Made in England  
Price 15/-

OBTAINABLE FROM ALL RADIO DEALERS or  
INTERNATIONAL RADIO Co. Ltd., Ford Bldgs., Wellington

# Notes and Comments

By  
"SWITCH"

THE English Press is full of letters suggesting that the shortwave broadcasting station 5SW, Chelmsford, which costs £10,000 per annum, and is seldom heard in Wellington, excepting at ungodly hours, should be paid for by the "colonies." 5SW, however, is still called an "experimental" station by the British Broadcasting Corporation. What we desire to know is when will 5SW be something more than an "experimental" station. And then if we have to contribute to the support of that station we would certainly desire to dictate times of transmission, wavelength and power.

"MY idea of a really good radio talk is when it appears to be a talk, and not something which is read," said a hard-boiled old-time listener to the writer a couple of days ago. "Switch" has listened to many talks from 2YA which carried the effect of being carefully considered talks, but there have been others which were too palpably mere readings. The effect of a reading is much enhanced if the speaker can lend a little conversational colour to his method of delivery. The tedium of listening to a reading can thus be prevented by the speaker's technique.

SOMETIMES the Yankee broadcasting companies refer to the listeners as "dialers," or, as we would spell it, "diallers." Another term, applied facetiously, is "broadcasters" as a distinction from "broadcasters." In Australia when radio was in the wooden age listeners were called "experimenters" for the sets in general use in those days were home-built, and, as there was very little to listen to, they had ample time to experiment with various hook-ups which were published at the time. Various endeavours have been made to coin a suitable word, but "listener" seems to be the most accepted in this part of the world.

WELLINGTON listeners who chanced to be tuned in to 2BL, Sydney, the other night when Alfred O'Shea sang nine items in succession enjoyed a musical treat. If anything, Mr. O'Shea

broadcasts better than singing in a hall or theatre before an audience. The writer heard him sing in the Wellington Town Hall last year, and confesses he enjoys O'Shea better on the radio. By the way, he told us from 2BL the other night that he is about to visit New Zealand prior to going to the United States. This is the second time this has been announced.

MR. J. H. OWEN, ex-president of the Wellington Radio Society, writing from London to "Switch," says that he was just about to leave for Brussels, Paris, Lyons, Monte Carlo, Cannes, and Nice. He stated he expected to be on the Continent for five weeks. Mr. Owen, his wife and infant son will leave Home for Wellington on February 15 by the new liner Rangitiki, 17,500 tons, on her maiden voyage. Mr. Owen remarks: "The bands, orchestras, and music generally, in London, in concert halls, kinemas, and on the radio are a treat."

MR. J. H. OWEN forwards a copy of certain remarks made by Captain Ian Fraser, M.P., when speaking at the annual dinner of the Radio Manufacturers' Association, held recently in London. Captain Fraser suggested that talks on the wireless, to be effective, must not merely be well spoken, but must be properly listened to. There was technique both in talking and in listening. He recommended that people should use more headphones, or that they should listen to loudspeakers in a quiet room. Unless they did that they could not judge whether a talk was of value or not. Well, as far as "Switch's" experience goes, it is difficult to listen to a broadcast talk when a number of guests are present in one's house. Lady visitors, in particular, show a disinclination to listen attentively. They appear to think it an excellent opportunity to chatter.

THE writer has always enjoyed Mr. Johannes Andersen's talks on New Zealand birds, from 2YA, Wellington, but on one specific occasion Mr. Ander-

sen's talk could be followed only with the greatest difficulty owing to the ceaseless gossip of a party of visitors, male and female. If it had not been considered bad form, "Switch" would have connected up a pair of headphones in series with the loudspeaker, and ensured reasonable audibility despite the chatter of his guests. This sort of thing, however, isn't done, and the annoying babble had to be endured.

MR. OWEN also forwarded the text of the statement of the chairman of the Radio Manufacturers' Association in proposing the toast of "The British Broadcasting Corporation." He said that the rate of increase in the number of wireless receiving licenses in Great Britain had accelerated. During October last 21,561 new licenses were taken out, as against 5071 in October the previous year. The total number of wireless receiving licenses in force on October 31 last was 2,542,958, which represented an increase of 194,100 in twelve months. He was given to understand that the figures for November would reveal an even more substantial and satisfactory increase. Over two and a half million broadcast listeners is certainly an outstanding total, and it goes to show what amazing progress has been made at Home.

AN experienced listener suggests that a warning should be published that "C" batteries should be tested after a few months' use. It is true, he said, that there is no actual drain of current from a C battery, but they deteriorate even if they stand on a shelf unused. Old C batteries sometimes develop an internal open circuit causing an excessive flow of current in the plate circuit, and overheating in the filament circuit. These conditions soon damage a valve. The grid circuit, he urged, should never be broken when the filaments are switched on, otherwise a damaging effect will be created in the valves. "Switch" has not previously seen this warning in print.

HATS off to the gentleman who performed the ring-side description of the wrestling match between the Greek, Kilonis, and the Indian, Sunni, broadcast by 1YA, Auckland, last week. "Switch" never hesitates to condemn, and is ever eager to praise, whichever the case demands. He has heard many wrestling matches described from 3LO, Melbourne, and 2BL, Sydney, but the Australian ring-side describers couldn't hold a candle to the Aucklanders. He rattled off a "verbatim" description of the contest in a most astonishing way, never letting up for a moment, until one could almost visualise what was happening in the ring all the while.

THE Aucklanders knew the wrestling holds, and he fired them at us in an incessant stream of words, almost breathlessly at times. He also avoided the cheap "bunk" put across by the 3LO, Melbourne, man, who customarily shouted himself hoarse with such phrases as "He's got him!" followed invariably by "No, he hasn't! Smith-

kins has wriggled out of it!" This simulated excitement on the part of the Melbourne man was evidently mere showmanship to induce listeners to come and see these "marvellous" contests.

THE test of the Auckland man's description of the Kilonis-Sunni wrestling match was provided by some lady guests who happened to be listening-in at "Switch's" domicile. Station 1YA, Auckland, was switched on, and, despite the ladies' enthusiasm for the music which was coming in from other stations, they begged "Switch" to hold 1YA right through the wrestling match. Before long they became excitedly partisan, and their sympathies were extended to the Indian, he being a British subject. If the Auckland describer of the contest chances to read this it may afford him some satisfaction to know that his description kept a party of a half a dozen people in one home on the tip-toes of excitement right to the finish.

WE listeners are as a body a rather phlegmatic, irresponsible community. Even when anything specially meritorious is put on the air we are generally inclined to leave it to someone else to write an appreciative letter to the station from which it emanates. How different is a theatre audience, which applauds frantically when it hears or sees something extra meritorious. The cynic will say, "It's easier to clap one's hands than to sit down and pen a letter." Nevertheless, if listeners realised the encouragement and pleasure a brief note of appreciation brought to a station director, they would not begrudge the little trouble involved in dropping two or three lines to the man who is doing his utmost to serve the listeners.

A WELLINGTON listener has informed "Switch" that through attaching his aerial to his chimney he damaged the latter. During a strong blow—one of Wellington's pet north-westerlies—the strain of the aerial pulled the top off the chimney. This should act as a warning to listeners not to fasten their aerials to chimneys unless they are sure the latter are in good condition. This reminds "Switch" of a Wellington youth who, contrary to the war regulations, used to hoist up his aerial at night-time during the Great War. His father took strong exception to this, and one night he found the aerial just low enough for him to reach. The pater gave the aerial a wrathful jerk, and brought half the chimney almost on top of him!

THE New Jersey shortwave transmitter for trans-Atlantic communication is subject to crystal control. The crystal encased in a constant temperature cabinet, governs the transmitting frequency or wavelength with a remarkable precision. Another wavelength can be adopted in about 10 minutes. The change merely means the change of the slab of crystal with another of different dimensions.

## YOUR OPPORTUNITY!

### ANNUAL RADIO STOCKTAKING SALE

Commencing February 1st all Radio Receivers and Accessories will be temporarily drastically reduced in price in order to reduce stock before stocktaking period.

SETS, KITS, LOUDSPEAKERS, ETC.,

At less than cost. Special reduction. Price list now available. Watch our Windows.

BE EARLY—SEND FOR PRICE LIST.

*Harringtons* N.Z. LTD.

(The Leading House in Radio.).

40-42 WILLIS STREET

WELLINGTON.

## Reports on Copyright Position

(Continued from page 2.)

performers in the presence of their audiences.

"Discoveries and inventions resulting in cinematography, mechanical music, and broadcasting have effected a change of conditions. These inventions have three things in common: (1) They provide a world-wide audience; (2) they are all concerned with performance, and two of them (cinematography and broadcasting, entirely with public performance; (3) all involve great capital enterprise.

"The world-wide Performing Rights Association, controlling virtually all public-performance copyrights, discharge two useful functions: they efficiently protect copyright-holders and by their representative character straighten out difficulties which would be occasioned by attempting to deal with numerous individual copyright-holders.

"The Holland delegation suggested at the Conference compulsory concentration of broadcasting performing rights in one great association in each country, but as the suggestion was also coupled with many details it was unacceptable.

"Any attempt to limit the right of the copyright-holder to deal as he pleases with his 'performing-right' is resented. Such a limitation can only be by some form of expropriation, and as such needs very careful consideration. The gramophone business has been built upon the compulsory-license system, and many gramophone companies have made vast profits, declared large dividends and bonuses, and their shares have appreciated five, six, and seven fold. While this has been going on, the payments to composers have been ridiculous, small. Moreover, while the composer has received little for his work, the executants of the composer's music, if skilled and popular, receive great sums, running into thousands of pounds in some cases. The foregoing is the statement of the composer's case as brought under your delegate's notice. On the other hand, complaints are rife of the exactions of the Performing Rights Association wherever they have unlimited property rights; and in British countries, outside of mechanical music, they have such rights at present. The complaints arise mainly in connection with broadcasting.

Your delegate has heard ex parte statements from representatives of both sides, but it has not been part of his duty to hold an inquiry, nor has he done so. What he has done is to concentrate his energies upon reserving for the New Zealand Legislature power to deal with this matter, and Article 11 bis secures that power.

### Suggestions.

"Note.—Such of the following suggestions as deal with broadcasting and public performance rights proceed upon

the assumption that the New Zealand Legislature adopts the view that they should be subject to control.

- (a) That the existing copyright law, conferring upon copyright-holders public performance rights, needs alteration to meet present-day conditions.
- (b) Some system of compulsory license be established, thus affording protection against overcharge and other abuses.
- (c) That a 'competent authority' to deal with compensation in default of agreement, in terms of Article 11 bis, be appointed.
- (d) To avoid delay it may be desirable to allow performance before assessment of compensation in certain events and subject to proper safeguard.
- (e) Whether compensation shall be on a royalty basis, a percentage-on-door-receipts basis, or other method, is a question needing investigation. Probably the method must vary with conditions. Public performance may occur in many ways—e.g., in a restaurant, in a crowded city theatre, or in a remote country hall—and may be of items varying from a great musical work to a temporarily popular jazz.
- (f) Concentration in one representative body of performing rights seems necessary. At present the Australasian Performing Rights Association appears to fill this position.
- (g) Broadcasting may play a very important part in educational work, and some of the Continental delegates attached much importance to that aspect of it, particularly when coupled with television, an invention rapidly developing. It is already used in the teaching of languages. This use possibly needs legislative protection.
- (h) Broadcasting is in the nature of a public utility. The modern tendency is toward State ownership or control. Britain has adopted it, and a recent cablegram in the 'Times' indicates Canada is contemplating the same thing.
- (i) Apart from broadcasting and public performances, New Zealand may consider it desirable to await the British legislative proposals. There is apparently little divergence between British and New Zealand views in the other alterations effected by the Rome Convention.
- (j) As the need of the various Dominions are much the same, conference with them, and particularly with Australia, where the Australasian Performing Rights Association also operates, seems desirable.

## East and West United

### Another Wireless Bond

WAS it not Kipling who gave utterance to the phrase, now classic in literature, 'For East is East, and West is West, and never the twain shall meet'? True as these are, they have in another sense been contradicted by wireless, for a recent cable message states that China has been linked up with the western world by radio. The link is yet less than a week old, but it is another achievement of wireless, another link in the chain of internationality that radio alone can successfully forge.

The cablegram states that there has been inaugurated a radio service capable of communicating with the greater part of the world. Twenty-two important cities have been linked up with the central station in Shanghai. Inauguration messages were successfully exchanged between Shanghai and New York. The service is to be maintained and controlled by the Chinese Government.

And so wireless paves the way to a fuller understanding between nations, a greater degree of confidence and comradeship, and to national peace and goodwill. Strained relationships are the result of misunderstanding; any-

## Man-less Music

THE "Times" correspondent had an interesting description the other day about the battleship *Centurion*, which has recently been manoeuvred and wirelessly-controlled as a target-ship, which read as follows:—

"It is customary for the bands of all large men-of-war to play on leaving or entering harbour, and the 'Centurion,' having no musicians, has installed instead an amplifier fitted to an ordinary gramophone, which transmits martial music through a loud-speaker on deck. It was played for our benefit, and we can quite believe that the music created some consternation when the ship steamed in and out of Malta Harbour."

It certainly must have frightened some of the natives at Malta when this man-less battleship was manoeuvred by wireless.

AN American paper claims that Caruso broadcast as early as 1909. The paper states that the song he chose was the Sicilian aria from "Cavalleria Rusticana."

thing that will contribute to the prevention of this untoward state of affairs must be a national harbinger of peace; thus the real service of wireless telephone.

**Lissenola Speakers**

*make good reception better!*



No matter how perfect your set may be, you are not getting the best reception if you haven't a Lissenola Speaker. The Lissenola revolutionising cone is a combination of horn and cone—it fills in those missing notes and gives a quality of tone and volume that is unsurpassed.

**LISSENOLA  
CONE TYPE  
LOUD  
SPEAKER**

**50/-**

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

Your Radio Dealer can supply you—or send to

**ABEL, SMEETON LTD.**  
CUSTOMS ST. E., AUCKLAND.

Burgess Batteries  
are used in all  
big events.

**Why?**

**BURGESS  
RADIO  
BATTERIES**

More Burgess  
Batteries are sold  
in New Zealand  
than any other.

**Why?**

Mr. A. P. Morrison (Brooklyn) writes:—

Shortwave reception this last week has been very good with me. I have cleared up the mystery station, "JCE, Paris." This station was heard after midnight on Tuesday, January 15. He was operating on 26 metres, and his call-sign was heard three times. It is: FL, Radio-Electrique, Hausmann, Paris.

Two other new stations have been heard. PLG, Java, when heard last night was operating on 17 metres by the readings of my condensers, and they stated that PLG was a new transmitter, and last night was their first transmission. I might state it was said from PLG that Java has five l.s.w. transmitters now, and that all call-signs have changed. These calls were mentioned: PLE, PLF, PLG, PLR, and PLI. I have written to Java in regard to their changed call-signs and wave-lengths.

2ME, Sydney (Australia), call-sign is now PK2ME.

My log for the week is as follows:—

#### Friday, January 11.

6.30 a.m.: 7LO, Nairobi, heard giving news reports, and afterwards music; R6.

7.5 a.m.: 5SW was R7 fading; spoilt reception. 9 p.m.: W2XG, Rocky Point (America), with his word-test (write down transformer, etc.), R8. 9.30 p.m.: RFM, Russia, was at good volume: R8. More talk, then music, as usual.

11 p.m.: PCLL, Holland, broadcast-giving music was R9, but distorted.

11.15 p.m.: ANE, Java, 15.74 metres, with music, volume was tremendous and modulation was perfect (I might say, R19). Afterwards both stations carried out duplex telephony.

#### Saturday, January 12.

No SW stations in the morning.

3.30 p.m.: W2XG, Rocky Point, word test; strength, R7; W2XAD was not heard, or KDKA. W2XAD I have not heard since he changed his wavelength down to 19 metres.

9 p.m.: RFM, Russia was at good strength; R8. I did not listen again on the SW band till 12 p.m., listening to 2YA and the boxing from 2BL, Sydney.

12 p.m.: 52 metre stations as reported before. Musical items; strength R6; no call-sign heard.

12.18 p.m.: Station on 41 metres, both musical and vocal items heard; R7. Call-sign heard, PRN, but did not get location; foreign.

1 a.m.: PELL, ANE, and ANH were all heard on duplex telephony with one another, the two former stations at R8 and ANH, R7.

## Round the World on Short Wave

### Sunday, January 13.

Between 11 a.m. and 12 p.m., 2AX, Palmerston North, on 82 metres, testing R8.

3.30 p.m.: W2XAF, B4, dance music, but increased to R8 by 5 p.m.

4 p.m.: KDKA very weak, R3 to 4; did not trouble him much in afternoon, heard him again at 6 p.m. Special programme to Byrd expedition was heard back on 25 metres and 63 metres. His strength on 63 metres was R8, while on 25 metres he was only about R6. This programme concluded at 8.15 p.m. New Zealand time, quite an enjoyable programme.

### Monday, January 14.

6.45 a.m.: 3LO, Melbourne, was on the air with their usual Monday morning programme. Strength was R8, but fading slightly.

RFM was heard in the evening, R7. Also two New Zealand amateurs, ZL2AR working ZL2GA.

### Tuesday, January 15.

6.30 a.m.: 7LO, Nairobi, very weak; R4.

5SW was not heard by me.

9 p.m.: JHBB, Japan, on 32 metres. Modulation was quite good for the old Jap for once; R6.

9.30 p.m.: W2XAG, as usual, word test; R7.

10 p.m.: RFM, Russia, with some good music; R8.

12.5 a.m.: FL (2CI, Paris) was heard on 21 metres, absolutely perfect modulation and strength R9. No music was heard, all speech. My reason for so late a sitting this night was to test the strength of 5SW. He was heard at 12.45 a.m., two faint items first heard, and I must say his night receptions with us are better than the morning. I was surprised at the volume; strength was R8. Before closing down for the night a station on 15 metres was heard at R6. A man talking in foreign language, but could not make out the call.

### Wednesday, January 16.

7 a.m.: 5SW with a vocal item; R6.

8.20: ZL2GH, Wanganui, 80 metres, testing; R7.

9.15: JHBB, Japan, operating on 60 metres. Even better than Tuesday night; mostly talk. Strength R8.

11 p.m.: PK2ME, testing with PLG, Java, duplex telephony; R8. A slight fade.

11.5 p.m.: PLG, Java, as above. PLG performed a new one to me. At one part of their transmission the announcer stated that he would connect a telephone line from the studio for someone to talk to PR2ME, and the test was quite good at this part of the transmission. 2ME could distinctly be heard at PLG end.

### Thursday, January 17.

9 p.m.: JHBB, 37 metres. When first heard a little girl was singing, but modulation and strength was not too good, so did not trouble him much. About R6. To-night I have taken my entertainment from RFM, Russia. They have had a full night's programme and are still going. Some wonderful music and singing heard and strength is everything you could wish for; R9.

## Short Wave Peculiarities

### Helpful Hints

WHEN one gets down on the really short waves, such as the 20 to 35-metre band, usually a number of things strike him as being perplexingly different from the conditions he is familiar with on longer waves, and although he may get used to them, there is always a feeling that the set would be pleasanter to work if it would behave in a more rational fashion.

Sometimes it is possible to remove or reduce these little peculiarities by various dodges, such as one learns by experience, and the disconnected notes which follow are intended to help in getting rid of two of the most tiresome ones. They are based on experiences with sets of the general type likely to be in use among readers, and it may be taken that the remedies suggested are of a universal nature and will suit practically any case.

### Moving "Flat Spots."

FIRST of all we have the rather curious phenomenon of "flat spots" on the tuning range of the set. These are patches—sometimes only a few degrees wide, at which a great deal more reaction has to be used to make the set oscillate (in extreme cases it may refuse to oscillate at all), and on either side of which reaction is quite normal again.

It may be found that there are two or three of these patches on the tuning range of a given coil, and they can be a great nuisance, in ways which need not be described since they will be painfully familiar to most readers who have tried the short waves. The usual remedy recommended is to place a small fixed condenser in the aerial lead, and although this works (at any rate, it shifts the flat spot somewhere else), it is rather a nuisance to be obliged to transfer the aerial lead to a fresh terminal on the set, and then shift it back when the flat spot is encountered once more in its new position. Besides the condenser, if small enough to do its job, usually reduces signal strength a little.

A better cure in most cases is to weaken the coupling of the aerial to the tuned circuit. Where a separate aerial coil is used this is fairly simple, and it generally pays to provide some scheme for swinging this coil away from the secondary. For example, where plug-in coils are employed, you can use only a single screw for fixing the aerial coil socket, so that you can afterwards adjust it to various angles. Flat spots are generally quite easy to move in this way.

### Cures for "Threshold Howl."

WHEN the aerial is connected straight to the tapping on the tuned grid coil matters are a bit more difficult, and probably the best solution is a tapping clip which can be quickly moved from turn to turn to give various degrees of coupling. The only serious drawback to this method is that it causes considerable changes of

wave-length, so that you must be prepared to re-tune fairly frequently to find your station again.

Then again there is that annoying squawk or howl heard with some sets as they go into oscillation, commonly called "threshold howl," since it stops once oscillation has started properly. It is a rather mysterious complaint, but the main causes appear to be these (the remedies being fairly obvious where they are not given):

(1) Aerial coupling too tight.

(2) Reaction winding too big, or possessing too much capacitive rather than magnetic coupling to the grid coil.

(3) Detector valve of too high an impedance, or unsuitably supplied with B. and A., or unsuitably biased as to grid (try connecting lower end of grid lead to slider of a potentiometer).

(4) L.F. side unstable (reverse G.B. and G. leads to transformer) or being upset by intruding stray H.F. currents (use better H.F. choke, by-pass transformer primary with .0005-mfd. condenser, and space out the parts a little more widely).

## Television by 'Phone

THE well-known American Bell Telephone Laboratories, which were responsible for the first public demonstration of moving-picture transmission by wireless, have recently designed a two-way television apparatus intended for use with the ordinary telephone service. It enables a subscriber at one end of the line to see, as well as hear, the person at the other end of the line. The ordinary microphone is backed by a screen containing two apertures. The features of the distant person appear in one aperture, whilst the other receives the reflected light from the head and shoulders of the local speaker. A rotating disc with two series of spiral holes serves the dual purpose of analysing the outgoing television signals and of reassembling the incoming television currents after they have been applied to a local Neon glow-lamp. Four connecting line wires are necessary. One for carrying speech, one for carrying the outgoing television currents, one for the incoming television signals, and the fourth for carrying a synchronising current.

IT is said that during the recent gales that have swept Europe, the Eiffel Tower swayed so violently that visitors were kept off the top stage.

Use Our Booking Offices in Advance.

S-O-S

TRAVEL IN COMFORT BY CAR

NEW PLYMOUTH  
WELLINGTON — PALMERSTON

# Exide BATTERIES

MEAN DEPENDABILITY.  
Installed at 2YA Wellington.

All sizes. From 9/- each.

EXIDE SERVICE STATION

79 Kent Terrace, WELLINGTON.

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, JANUARY 25, 1929.