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Australia Remodels Her Wireless System

SPECIFICATIONS for the tender for the right to purvey programmes over the Australian Radio system have now been issued by the Commonwealth authorities and are reviewed in the article below by a writer in the "Sydney Morning Herald." The proposals are far-reaching and will have a definite interest for New Zealand listeners.

THE specification issued by the Post Office Department for tenders for an entertainment and news programme for all Australia contains some provisions that will lead to the improvement of broadcasting, but there are others of a doubtful character. The results, in the long run, may justify the new experiments, but there is also a possibility that they may not.

In the proposed new financial arrangement, the Post Office Department has the big end of the stick. The allocation of listener's license fee of 24/- each under this contract will be as follows:—To the contractor for the provision of programmes and copyright fees, 12/-; to the Post Office Department for running the "A" stations and the relay stations, 8/-; and for administration expenses in the collection and disbursement of the license fees, 1/-; and to Amalgamated Wireless (Australasia), Limited, for royalties for the use of its patents, 3/-.

UNDER the present system of private ownership of stations, the cost of maintenance and engineering expenses does not average more than from 3/6 to 4/- per license in New South Wales and Victoria. The amount would be slightly higher in the other States, owing to the smaller number of license holders. The proposal of the Post Office Department is that in addition to the present "A" stations, there are to be eventually 16 additional relay stations. The cost of the relay stations and the provision of the land lines linking the relay stations with

the "mother" stations in the different capital cities, is to be provided by the Post Office Department out of that 8/-.

It is realised that the relay stations cannot be fully operative for at least three years from now. The specification states that "the tentative constructive programme, if realised, will make available three relay stations for the first year, six more in the second year, and seven further in the third year." In the interval the cumulative effect of the 8/- per annum will be considerable. There are at present nearly 300,000 licensed listeners in Australia. It is anticipated that this number will be exceeded when the new contract becomes operative. That will give the Post Office Department £180,000 a year for the provision of broadcasting stations throughout the Commonwealth. The proposal at the outset is that the present "A" stations shall be rented by the Department. On the basis of present charges, the Department should make a profit of at least £100,000 out of the hire of the transmitting equipment of existing stations for the first year, and probably £75,000 for the second year, and £50,000 the third year. The cost of running the relay stations is at present problematical, but there is a fear that the Department, to safeguard its own interests, has ruthlessly curtailed the cost of providing satisfactory entertainment programmes.

Curtailement of Hours.

ONE of the most serious matters, from the listeners' standpoint, is that the periods for broadcasting from the two

"A" stations in Sydney are to be seriously curtailed, as from July next and from the two Melbourne stations from August next. On the existing schedule 2FC and 2BL conjointly are on the air for about 8600 hours a year. Under the new contract the two stations combined need only broadcast for a period of 5840 hours. This is a reduction for Sydney of 2760 hours per annum, or almost one-third. The two "A" stations in Melbourne are on the air about 7000 hours yearly, so that Victorian listeners will lose 1260 hours annually.

Owing to the reduced payment for the provision of programmes it may be taken for granted that the new contractor will give listeners the number of hours' broadcasting specified for in the contract, and no more. Sydney and Melbourne listeners are being sacrificed for the sake of prospective listeners in other States, seeing that in Adelaide, Brisbane, Perth, and Hobart the average number of hours' broadcasting is to be extended to ten daily. The difficulty in those cities in the past has been that it was not possible to get local talent for ten hours' broadcasting daily, and to put phonograph records on the air for the intervening periods would have run the copyright fees higher than the revenues of the respective stations justified.

The New Programmes.

STRINGENT conditions are provided in the terms of the proposed contract to ensure that programmes of merit and variety are put on the air. In each State

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Australian Radio

(Continued from page 1.)

there will be a local supervising committee, appointed to see that the terms of the contract are strictly adhered to. It is specified that "the programmes shall be of such a character as to be of general interest, and shall be of sufficient diversity to cater for the reasonable tastes of the community as a whole. The successful tendered shall avoid monotony, tedious repetition of items, and the unduly prolonging use of an artist in a particular State." The Post Office Department has not only the right to censor programmes and to prohibit the broadcast of matter considered to be of a debatable character, but the contract provides that the new contractor "will take into consideration any representations made by the local committee which the Postmaster-General may appoint for the purpose of securing co-operation towards the development of broadcasting services of the highest attainable order." Furthermore, the new contractor "shall do all in his power to cultivate a public desire for transmissions of educational items, musical items of merit, and generally for all items and subjects which tend to elevate the mind."

Educate the Public.

AGAIN, the new contractor "shall make all reasonable arrangements for the rendering of items provided by orchestras, bands, choral societies, and other organisations of high standing in the various localities from which the programmes are distributed, and shall pursue a reasonable policy of inducing the establishment and maintenance of organisations devoting their talent to the rendering of high-class competi-

tions." Conditions such as these savour a little of an endeavour to educate the public by broadcasting when the majority of listeners merely wish to be entertained. If such conditions are utilised by the local committees to foist "high-brow" education propaganda on listeners, the inevitable result will be the cancellation of licenses. Used in moderation and with discretion these conditions may lead to the improvement in the class of entertainment broadcast by some stations, but it will probably be found that the best policy will be to leave the manager of the "A" stations to exercise his judgment in providing the class of programme which he considers most likely to meet the requirements of the great majority of listeners.

One matter that almost all listeners will approve of is the complete elimination of advertising and paid publicity from the "A" stations in future. Listeners, by and large, do not pay 24/- a year to listen to advertising stunts.

THE B.B.C.'s new big studio at Savoy

Hill is probably going to be the only one of its kind in the world. It will be designed in a fantastic green, blue, silver and yellow scheme. The walls are felt-covered, and sound-absorbing walls have been constructed, also. On the walls are pictures of castles towering from a shore of a lake into the clouds, and the effect is heightened by subdued indirect illumination. Altogether it sounds rather like a dream palace. Much better ventilation has been secured and, according to an official of the B.B.C., the studio will no longer possess the old unnatural atmosphere of early designs, but it will now be a cheery, bright place, which will make artistes feel happy and will give them the right colour and atmosphere.

Auckland Notes

(By Listener.)

AGAIN a Wellington concert has been heard here even by crystal-set owners, and again the whole transmission was perfect. Mr. Clive Drummond's announcement, "2YA and 1YA broadcasting from the Grand Opera House, Wellington," seems to foretell great things. Wellington and Auckland have been brought much closer, and radio is going to play a big part in overcoming those petty jealousies and rivalries which too often affect the two North Island cities. When the installation of the new telephonic frequencies on the existing land-line is completed, the present capital and the old one will be linked in such a manner that their respective citizens must come to have better mutual understandings. The great majority of those who listened in on Sunday night, and also a fortnight previously, were merely delighted at the excellent entertainment provided. They failed to see a far bigger significance in the success of the two relays. Probably since then they have come to realise what the immediate future holds. The two most important centres in the Dominion, with due apologies to Christchurch and Dunedin, will share all big events in common. No erratic behaviour of the demon static will debar one city from listening to happenings in the other. An important speech in Parliament may be audible all over the island. When the British Rugby team plays in either centre, listeners in both may be able to follow the run of the game as it goes along. Vast possibilities open up, and among them, one, most important, New Zealand is likely to achieve, very soon, what Australia proposes to establish in four years by a relay system. Our Broadcasting Company is certainly alive.

BRIGHTNESS and variety continue to increase in our local programmes. On Saturday last the "Radio Scamps" commandeered the microphone, and made cheerful use of the opportunity. With song, sketch and anecdote they passed a most enjoyable couple of hours. If one were to make comparisons, however, he would declare that their entertainment did not quite reach the standard of that presented in a "Night of Convivialities" which preceded it by a week or two. There was not the same "connectedness," to coin a word, though this is said in no disparagement of the items rendered. There was a naturalness about the "Night of Convivialities" that gave it its greatest charm.

MADAME CORA ELVIN and Mr. Norman Day will be assured of a warm welcome when they make another holiday re-appearance on Tuesday night. The talented Tauranga vocalists are available for broadcasting only during school holidays.

IT is to be hoped that the hundreds of Auckland vocalists who love choral work will rally round in support of the broadcasting choir which is contemplated for 1YA. To a broadcasting station a choir is a great asset—as great, almost, as an orchestra. Though it may start in a small way, the facilities for rehearsal, music, and training which such an organisation offers, should prove attractive to all

Tribute to Radio Hero

Wireless Operator's Sacrifice

SOME considerable time has now elapsed since the ill-fated Vestris met with disaster, but the subject has been brought to greater prominence by a glowing tribute paid by "Le Haut Parleur," one of the leading French radio magazines.

It will be recalled that the Vestris met with disaster on the New York-Buenos Aires route, and through the supreme sacrifice of its radio operator, Mr. M. J. O'Loughlin, and his two subordinates help was summoned in time to save the majority of its passengers and crew. Had it not been for the devotion of these gentlemen, the fate of this vessel would have been listed as a mystery, comparable only with that of the "Marie-Celeste."

The Vestris was equipped with a very fine wireless outfit, capable of communicating a distance ranging to 15,000 miles. When it became evident that the Vestris was doomed, the operator commenced transmitting and carried on for three hours with his main transmitter, following up with the emergency transmitter until the ship was abandoned. After the ship heeled over and the engine-room became flooded with water, it is evident that with power cut off the operator had to switch over to his emergency set, operated by battery power. It was then, with the wireless cabin rapidly filling with water, O'Loughlin and his subordinates continued their gallant work, and enabled a considerable number of lives to be saved.

In publishing on its front page a photograph of the operator in his cabin, "Le Haut Parleur" states: "Among those who each day in life's drama simply and magnificently make the supreme sacrifice of their lives, must be named in particular these wireless telegraphists of the Vestris, who died at their post to save the lives of others. They knew at the tragic moment when their ship began to fill that no one would bear witness to their sacrifice, and spurning the instinct of conservation of life, remained to die. Obsessed with the greatest idea—duty—they let slip before them their hopes and ambitions, visualising for the last time those who remained at home—now so distant. Governed by their unwavering hands the sparks continued to fly until the critical moment when the waves drowning the apparatus came in their turn to seize these indefatigable and to cut short their last SOS. Dragged in the depths, they became the victims of an unselfish devotion to remain in those silent waters, the sole guardians in death of that submerged vessel."

who love part-singing, and appreciate the joy it will give to tens of thousands, for no other choir can hope to secure the vast audiences which await the performances of a radio choir. Listeners themselves can do much to help the new movement.

THE latest models of electric receivers are now being landed by several local firms, and are exciting keen interest and appreciation of their performances by those who have been fortunate enough to hear them.

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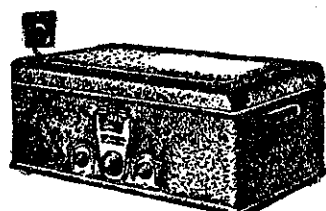
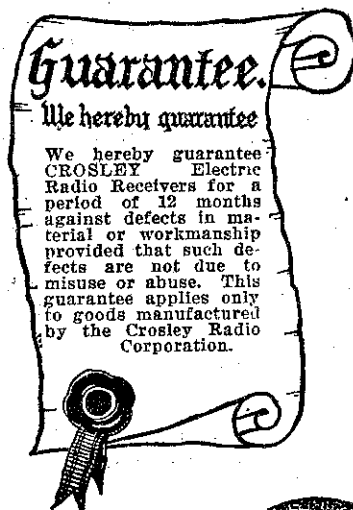
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Hawke's Bay Notes

(By XYZ.)

WHILST one does not find much pleasure in having to report that reception conditions in H.B. are bad, at the same time there is no use in calling a spade other than a spade and, by the same token, one must candidly admit that most local listeners are just wondering when they're going to get a decent night. Saturday, the 11th, wasn't at all bad, but it was the only one worth while in the last three weeks. Static has been the bugbear, and if there's anything in that Invercargill claim for the discovery of a static eliminator, may it come to the market soon.

AS far as station strength is concerned, there is nothing to growl about. Our old friend, 1YA, is still top of the tree for all-round reception, with 3YA a close second, and both these stations are still received well ahead of 2YA. The second relay of the Wellington band concert from Auckland again provided further proof of the quality of local reception from the Auckland and Wellington stations. There was plenty of static about at the time, but, even so, it was quite tolerable to listen to Auckland, whereas it was impossible from Wellington.

ON Saturday, the 11th, at about 9.45 p.m., the writer made a test of the various New Zealand and Australian stations, working all under the same conditions. The same turn on the volume control was used in each case, and Auckland finished on top. Placing Auckland at R10, Christchurch came in at R9. 2BL, Sydney, was next, with little less volume, say R8, and 2YA, Wellington, and 2FC, Sydney, were about equal, R7. 4YA came through at about R5, and was on a par with 3LO, 4QG, 2GB and 3AR. Later in the evening 7ZL, Hobart, was about R6. These figures in actual fact may be a bit on the high side, but are used for comparison purposes.

THE Radio Society in Hastings is eagerly looking forward to the date of the broadcast of the special relay concert from Hastings. The president of the society, His Lordship the Bishop of Aotea Roa, is at present away, and until he returns, no date can be settled, as he is to arrange the Maori portion of the programme. This concert is surely going to be "some show." The present intention is to stage it in aid of the Napier Hospital radio fund and the H.B. Radio Society's clubroom fund. The latter is now working hard to raise funds to erect its own clubroom and experimental quarters.

DOING well! That's the position regarding the relicensing of sets in Hastings, and from what one hears, there is likely to be a good radio season

Gramophone Merger

H.M.V. and Marconi's Right to Wireless Patents

IT is announced that a merger agreement has been concluded between the Gramophone Company, Limited (His Master's Voice), and Marconi's Wireless Telegraph Company, Limited.

By this agreement, says the "Morning Post," His Master's Voice Company acquire the Marconiphone Company, "as well as the right to use present and future Marconi patents and inventions in all fields of public entertainment and education."

It is stated that: "His Master's Voice has also acquired the exclusive right for these fields to the Marconi trade marks, including the trade marks 'Marconi' and 'Marconiphone' and certain factory facilities. The Marconi Company will receive cash and shares in H.M.V., thereby becoming interested in the prosperity of the combined gramophone and wireless broadcasting industry."

Jump in Shares.

GRAMOPHONE (H.M.V.) shares made a spurt on the London Stock Exchange on rumours of the deal and suggestions of a pending scrip bonus and a share-splitting scheme. The shares rose £1 7s. 6d. to £17 5-16 at the close. On March 1, they were quoted at £15.

In spite of a somewhat severe reaction in New York, Radio Corporation of America (New) and Victor Talking Machines provided outstanding features by rising eight dollars and ten dollars respectively. These two companies will shortly be combined as far as stock market quotations are concerned, and are intimately connected with H.M.V. Mr. Alfred Clark, for instance, who is managing director of the Gramophone Company, is also on the board of the Victor Talking Machine Company of America.

ahead. The advent of a certain new receiver seems to have bucked the trade along at a good rate and a local agent for these sets reports excellent business—so good, in fact, that the supply is not enough to meet his demand.

HAWKE'S BAY had a bad spin with the floods this week, but now that the bad spell has cleared, it is hoped that air conditions will improve. Whilst on this, it is worth mentioning as showing the enthusiasm of local listeners, that in the height of the flood, with the rain coming down in barrow loads, eight out of eleven members attended the last meeting of the committee. Those who turned up decided that they were "big mugs" to leave home under such conditions, but, with keenness such as this, there is little chance of the society being other than the live body it now is.

Much buying of Gramophones (H.M.V.) which has emanated from New York during the last few days has also been due to rumours of scrip bonus and a share-splitting scheme.

Gramophone Company, Ltd., was registered in 1900 as the Gramophone and Typewriter Company, Ltd., changing its name in 1907. The authorised capital is £1,700,000 in £1 shares, £100,000 in 5 per cent. cum preference, and £1,600,000 ordinary shares.

Previous Merger.

IT must be remembered that the Radio Corporation of America took over the Victor Talking Machine Company some time ago and the merger is now an accomplished fact. These two American companies own half the shares of Gramophone (H.M.V.), the English company, but, when the new shares of the Gramophone Company are issued to the Marconiphone Company (i.e. Americans will no longer have a controlling interest.

Mr. Walter Howarth Cooper, the secretary of Gramophone Company, stated to the "Morning Post" that H.M.V. acquires not only the Marconiphone Company, a subsidiary company of the Marconi Wireless Telegraph Company, which has an authorised share capital of £4,000,000 (£2,270,133 paid up), but also the right to use present and future Marconi patents and inventions in all fields of public entertainment and education. This, he explained, includes gramophone amplifiers, etc.

Mr. Cooper added that H.M.V. was also taking over the radio factories of the Sterling Telephone and Electric Company.

The Sterling Telephone and Electric Company is controlled by Marconi Wireless Telegraph Company (under the directorship of Mr. F. G. Kellaway), which has an authorised share capital of £65,000.

An Authentic List.

DX enthusiasts will find in the "Guide" a complete log of New Zealand and overseas stations. Almost every station heard or likely to be heard has been listed.

The lists of American stations are indeed complete. One list, those already reported, has been corrected to include the last station reported through these columns—that a fortnight ago. These have been carefully checked with several American lists, and are as authentic as possible. The second list contains the calls, wavelength, power, and location of some fifty of the more powerful stations that may eventually be heard here. This aids the DX enthusiast who hears but part of a call in identifying the station.

Other lists are Australian, Japanese, Canadian, and miscellaneous broadcast stations.

A Correspondent's Report

TO many people there is now welcome variety to radio programmes per medium of shortwave, writes S.P. (Johnsonville), and to those who regularly listen in on shortwave there is considerable of interest. This afternoon was quite good to enliven the week-end, and several records were broken. W8XK, associated with KDKA at Pittsburgh, rebroadcast Morse messages from WFA in the Ice Barrier at "Little America," and these signals were rebroadcast by 2ME, of Sydney. Sydney's special programme to Commander Byrd was received by me as follows:—Item, "In a Chinese Garden." For benefit of American listeners Sydney time stated as 18 minutes past 4 Sunday afternoon. Mr. Farmer was introduced and said, "It is indeed a thrill to think that I am able to address a Sydney Commander Byrd, geographically 5000 miles away, but the message has to travel 10,000 miles to Pittsburgh and another 11,000 odd miles to him. There is really something fantastic about it, and I trust you will be able to get me clearly. We read of you and gallant crew at South Pole, and trust your work will further the knowledge of mankind in general. With these few remarks I close. When the long winter closes your expedition will have added considerable to the knowledge of mankind. Good-bye." "Wipers," by H.M. Grenadier Guards Band. At 4.25 p.m., Sydney time, Mrs. McDonald, known as Mrs. Sydney, said: "Very pleased to speak to you all, and convey message good-will from mothers of Australia. To Commander Byrd best wishes for very great success. Good-bye." H.M.V. record, "Serenade," by Salon Orchestra. 2ME stated they found lag in reception of their own signals through 8XK of about a second, though the interval could have been only 1-1-sec. Records, "In a Persian Market," H.M. Coldstream Guards Band. "Lieberstraume," and weather forecast for Sydney. It was nearly 4 a.m. when Pittsburgh signed off with 2ME, Sydney.

Additional Stations Logged.

HERE are a couple of items to add to Mr. Sellens's excellent list in the "Guide":—VPD, Suva, on 20.795 metres. Often duplex with "Percy," of 2BE, Sydney. DGV Nauen, on 15.43 metres. Often late evenings with Bangkok, Siam. I have heard this station calling "Hullo" (all foreigners use English "Hullo") Zedem (Siam), "Commen ze bitter," etc. G5SW, latest schedule given on May 7. London transmission Monday-Friday, 11 p.m.-12 p.m.; 5.30-10.30 a.m. Tuesday-Saturday, and special gramophone recitals on Tuesday and Thursday, 10.30 a.m.-12.30 p.m., New Zealand mean time and London daylight time. If the shortwave page can be made a permanent affair it would be a good thing. The "Record" should be bigger when carrying heavy advertisement. It did last week (May 10).

"FADA" Still the Standard of Radio Reception
Sole N.Z. Distributors: THE NATIONAL ELECTRICAL & ENGINEERING CO., LTD.
AUCKLAND, WELLINGTON, CHRISTCHURCH, DUNEDIN, HAMILTON, WANGANUI, TIMARU.

Radio Round the World

THE great increase in the traffic over the present long-wave channels, has made it necessary for new short wave transoceanic radio-telephony stations to be erected by the American Telephone and Telegraph Company, and engineers are already at work at the station which is being erected under this scheme in New Jersey.

THE Chinese Minister of Communications at Shanghai has issued instructions that all Chinese ocean-going vessels of 500 tons and upwards must in future be equipped with a wireless installation.

THE benefits of radio communication have been extended to the fishing fleets off Nova Scotia by the setting up of a new wireless station at Louisberg, from which daily reports are sent out to the fleets as to quantities of bait available, weather, ice conditions, and so on.

A GERMAN wireless company has secured a contract from the National Government of Nanking for the erection of high-power radio stations in Canton, Tientsin, Shanghai, and Hankow.

FOLLOWING the successful experiments which have been carried out during the past six months with a Danish system of picture transmission, a company has now been formed in Amsterdam to develop this system still further and to exploit it commercially.

A NEW station has been set up at Middelkerke, near Ostend, in Belgium, for aircraft traffic across the English Channel, and using both telegraphy and telephony. Signals from this station can be received on three wavelengths: 900, 1400 and 1680.

THE Radio Peredacha, which is the original Russian Broadcasting Company, has been done away with, and the Posts and Telegraphs Department of the Union of Russian Soviets, has announced its intention of taking over the entire control of the radio services of Russia for the purpose of reorganising them completely.

WHAT may be the highest structure ever erected is the contemplated "Radio Tower" at Balona. It is planned to put up a 400-metre radio tower for the forthcoming exhibition. This tower would thus be about 1312 ft. in height, rising some several hundred feet above the Eiffel Tower. According to the present design, the tower will have a circumference of 6 ft. and will include hotel, theatre, museum and library as well as the radio transmitters for broadcast telephony and radio telegraphy.

HERE is an interesting example of how wireless pictures can assist commerce. Whilst the "Silver Maple" was making for Bermuda, the Kerr Steamship Company, Ltd., the owners' London ship-brokers, made good use of the wireless picture transmission service. The company's New York office was anxious to have a new rudder

ready for the "Silver Maple" when she arrived at Bermuda, and they cabled to London for specifications. The London office at once got out drawings and plans and dispatched them direct by wireless, thus saving a delay of eight days.

THERE is a probability of an important merger between wireless and cable interests in France. Radio France, which has a system of radio communications between France and Great Britain, Norway, Spain, Austria, Rumania and Czechoslovakia, is reported to be negotiating with the French Cable Company which has cables from Europe to North and South America and Australia. The amalgamation, if it comes into being, is regarded as following upon British and American schemes for uniting world communications under single control.

BELIEVING that a man who had embarked at San Francisco for Honolulu was a certain alleged confidence trickster who had cut his bail while awaiting trial at New York, the police wirelessly a photograph of the man to Honolulu, five thousand miles away. When the ship put into port, the suspected man was recognised and arrested. Indeed, the criminal does not seem to stand much chance these days, especially since the development of wireless photographs.

ACCORDING to the "Sunday Dispatch" (England), the war against wireless pirates has been reduced now to a system, based on the idea of a series of raids carried out locally by the postal authorities, reinforced by the detective vans. However, there were well over one thousand prosecutions of people working unlicensed sets last year, which represents over three prosecutions a day all the year round!

AN interesting controversy has been going on in the "Leeds Mercury" concerning the origin of the linen diaphragm loudspeaker. Judging from the evidence given in the "Mercury," there is no doubt that the development of this loudspeaker is entirely due to Mr. Mark Potter, the well-known wireless correspondent of that journal.

IT is understood that the Fultograph picture receiving apparatus is now undergoing tests by the Air Ministry, and the Meteorological Office is considering its adoption for sending complete weather charts by wireless. Apparatus is also being placed at the disposal of the War Office for tests.

PROFESSOR ESAU, head of the Technico-Physical Institute of the University of Jena, Germany, has been working for some years on what he calls the ultra-short wireless waves, and it is reported that he has achieved very great success with some of his latest experiments. Only about 100 broadcasting stations can work on wavelengths between 200 and 600 metres, while theoretically 10,000 stations could broadcast on waves be-

tween 20 and 60 metres. Professor Esau has obtained satisfactory results with wireless waves about 3 metres long and established telephonic communication up to a distance of 60 miles.

THE extraordinary rapidity of radio communications was demonstrated in a remarkable way at a dinner of the Foreign Commerce Club of New York. The New York transmitter of the Radio Corporation of America was used and a message was sent to this from the meeting by means of an ordinary telegraph line. A message was wirelessly to London and a reply received within one minute, whilst a reply was also received within one minute from Honolulu, and in less than 90 seconds from Paris.

GERMANY has adopted the Fultograph still-picture broadcasting system. After a good deal of investigation and examination of some rival systems, Captain Fulton passed with flying colours in a recent test. No definite programme details are yet to

hand, but I understand that very shortly from ten to twelve pictures will be broadcast every day from a main German broadcasting station.

IN July, 1928, British export figures for radio trade were not too bad. The "Wireless Trader" gives the following figures:—Total value, £75,910 (including valves, £14,738). Australia was the best buyer, her share amounting to £16,992, of which sum £7288 was spent on valves.

WITHIN two days of the Olympic Exhibition opening, one firm received an order from Holland, in face of German competition, for 25,000 variable condensers, and orders from Japan, India and many Continental countries poured in. Australian markets are made very difficult for British goods by a heavy import tax. And that means that a component costing 30s. in England costs 57s. in Australia. But, despite this great drawback, business in Australia has been brisk as regards British wireless goods.

PHILIPS VALVES

AE

SERIES 'F'

FOR AMERICAN RECEIVERS

THIS series is intended for use in American—or American type—A.C. Receivers, and consists of the F209, F209, and C603.

These valves have no really exceptional features—they are just robust long-life tubes.

Characteristics:			
	F209	F209	C603
Purpose	HLF	as Audio-Def.	Power
Fil. Volt	2.5	2.5	5
Fil. Amps	2.09	2.09	5
Heating	2A	2A	2A
Price	22/-	27/-	27/-

The combination of these tubes is a typical American set is—

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

WELLINGTON, FRIDAY, MAY 24, 1929.

BROADCASTING AND EDUCATION.

FROM 3YA recently Dr. J. Hight gave an instructive and thought-provoking resume of his conception of the value of broadcasting as a medium of education. This paper is published in full in another column, and is worthy of the perusal and study of thinking readers. In it Dr. Hight makes an effort to classify and summarise the real place that broadcasting can most satisfactorily and efficiently take in the realm of education. Care is taken to point out that that word should be lifted from its ordinary connotation of "dry-as-dust schooling" into the broader view of a widening and interesting contact with all phases of human life. A good point is early made by citing the comment of an English teacher now in New Zealand. This teacher, in weighing up the New Zealand boy as against the English boy, stresses the point that the English boy has wider and deeper intellectual interests than the New Zealander. This is attributed not only to the advantages of environment, which are represented by association with a fuller and more vital national life and the atmosphere created by a daily Press informed of world movements, but by "the excellence and variety of the wireless, which is in practically every home in Britain, and must give a breadth of intellectual interests for which the colonial youth cannot hope." Endorsing that view, Dr. Hight states that "We in New Zealand should not dwell in complacent content, but should strain every effort to equalise conditions by whole-hearted, well-thought-out, and systematic endeavours to give our young people the stimulus of a perfected broadcast."

THE warning as to the "complacent content" of many New Zealanders is well made, and may fitly be stressed. This is a definite danger in our intellectual and national life. New Zealanders have the habit of regarding themselves as leaders in many branches of world thought and legislation. This is a relic of the Seddon regime, when Seddon did make one or two forward moves, and on that pedestal there has been built an inverted pyramid of what the frank critic might call "national conceit," and which a more considerate one would call an "enlarged national ego." Many classes of New Zealanders certainly keep abreast of the times, and by periodic visits overseas maintain contact with world progress. On their return, it is the habit of our Press to interview them, and, as praise is infinitely more pleasant than criticism, the tendency is almost invariably to enlarge on those few aspects in which the advantage lies with us, and ignore painful deficiencies. This process can be overdone, and we rather think Dr.

Hight has let us off lightly in his quiet warning that New Zealand should not indulge in "complacent content." Isolated as we are from the more progressive parts of the world, we must necessarily lag behind in many features, more especially having regard to the tremendous rate at which present progress is proceeding.

THIS very fact emphasises the importance that broadcasting can play in the life of the people. Dr. Hight, in his discussion, necessarily treated the matter from an idealistic point of view in an outline of what could and should be done. His catalogue of various efforts presents a rather striking harmony with what we know to be the objective of those compiling our New Zealand programmes. While we know that with the limited talent available in this country, effort has been made to attend to the main aspects enumerated by Dr. Hight, we will avoid the pitfall of "complacent content," and not claim that the ideal has yet been reached. We would like to see very much more use made of broadcasting as an "educational medium"—not necessarily in the dry sense, but in the live and informative sense. The experimental contact formerly made between broadcasting and schools should be prosecuted. With live and forceful educational authorities we believe the difficulties could be surmounted, and the offer of the Broadcasting Company to devote certain of the daylight hours of transmission to this phase of work used advantageously. There is a tremendous field, too, for use of broadcasting in our national life in connection with the farming industry. It has already been stated that Dr. Chilton, formerly of Canterbury College, is under engagement to the Broadcasting Company to investigate this matter and evolve data of importance. His inquiry, when completed, will doubtless be the basis for further broadcast in that field.

WE have frankly appreciated Dr. Hight's summary of the educational possibilities of broadcasting, and commend his remarks to readers. In essence they are a call to fuller, forceful use of radio. Necessarily a section of readers will resent the mere suggestion of education. Dr. Hight sought to adjust that by his definition of real education. Even the hours of entertainment, which give listeners that musical enjoyment which they mainly seek, are educational—they are moulding taste and extending appreciation. If we can remove from the word "educational" the thought of restrictive unpleasantness, and give it the lure of informative enjoyment, then a united appreciation will be won for broadcasting as the medium of expanding a fuller and more joyous national life.

Another Grand Opera Arranged

Act III of "Tristan and Isolde" from All Stations

THERE is little doubt that the broadcasting of "Rigoletto," attended as it was by a vivid description of the plot, met with widespread appreciation. Very many highly favourable reports have been received and there would seem to be a demand for grand opera presented in limited instalments in the same way as "Rigoletto" was treated.

It has therefore been arranged that "Tristan and Isolde" shall be the next opera to be broadcast. This presentation will be confined to Act III, and will be presented in two sections on different evenings in two succeeding weeks. The dates for the four stations are:—

2YA	June 7 and 14.
1YA	June 11 and 18.
4YA	June 17 and 24.
3YA	June 19 and 26.

Apart from the magnificence of the music, an interesting tale is woven round "Tristan and Isolde." The origins of the story are lost in legendry. Apparently it is an old Celtic romance. It was on the thirteenth century version that Wagner based his great love drama, a work of which, in its kind, has never been surpassed.

SYDAL WILL DO IT

You have to do housework and suffer the discomfort of rough and sore hands. So you think, but you are wrong. Sydal will keep your hands in perfect condition in spite of rough work. If your hands are like sand-paper the regular use of Sydal will make them like velvet. A 2/- Jar will last months.

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TRAVEL IN COMFORT BY
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WELLINGTON — PALMERSTON
NEW PLYMOUTH

YOU CAN'T BUY A BETTER VALVE THAN

Mullard
THE MASTER VALVE

"Should Bachelors be Opening of Waikato Winter Show, Masterton Show Taxed?"

First Debate Broadcast from 4YA

4YA broadcast its first debate on Wednesday, May 8, when His Worship the Mayor of Dunedin, Mr. R. S. Black, presided over the discussion of the proposition "That Bachelors Should be Taxed."

This was the first public appearance of His Worship following his public installation, which took place on the afternoon of the same day. 4YA was thus honoured more than usual by the presence of the Chief Magistrate of the city.

Pastor More argued the affirmative, and Mr. A. L. Curry, the announcer of the station, the negative. His Worship the Mayor in a few remarks at the close of the debate, expressed his very great pleasure at being present, and complimented the station on the excellent service it was giving the community.

This was the first debate broadcast from the station and created a very favourable impression among listeners. Many comments have been received from enthusiastic listeners, and similar features will appear in further programmes.

Negro Spirituals

Lecture by Mr. W. H. Dixon, L.R.A.M., A.R.C.M.

DURING the presentation of "Rigoletto" by 3YA, the story of the grand opera was told by Mr. W. H. Dixon with great dramatic effect. Listeners will be pleased to hear that he is to give a lecture-recital from 3YA in the near future. The subject will be "Negro Spirituals." Mr. Dixon has made a close study of the inspiration and history which lie behind the negro spiritual, and he will illustrate his remarks by songs sung by himself. As Mr. Dixon is a Professor of Singing a treat is in store for all listeners.

Sunday Lecture at 3YA

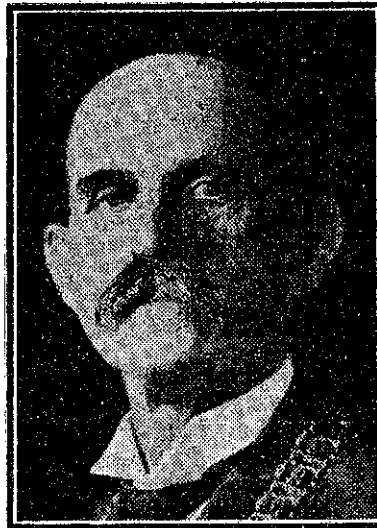
Dr. Jarman, of Launceston, to Speak

"MUSICAL IMPRESSIONS" will be the subject of a lecture to be given by Dr. C. A. Jarman, Mus.Doc., city organist of Launceston, Tasmania, at 3YA on Sunday evening, May 26. Dr. Jarman is at present in Christchurch in his capacity of musical judge at the competitions. He has broadcast lectures in Britain from all stations in Australia.

Tribute to Importance of Rural Interests

THE first long provincial relay conducted by 1YA will be from Hamilton, and the occasion will be the official opening of the Twenty-third Annual Waikato Winter Show.

This relay will be over a distance of 95 miles. It will provide a very interesting afternoon's entertainment, for in addition to the speakers, the Exhibition Choir will sing "An Ode of 67 Years Ago." This ode was sung



MR. J. R. FOW,
Mayor of Hamilton.



MR. J. A. YOUNG,
M.P. for Hamilton.

at the opening of the International Exhibition in London, in 1862. It was composed by Lord Tennyson, poet laureate.

The speakers for the afternoon will be:

The President, Mr. A. K. Alexander.

The Mayor of Hamilton, Mr. J. R. Fow.

The Member for Hamilton, Mr. J. A. Young.

THE Waikato Winter Show is an event of outstanding importance. Since the first show, twenty-three years ago, the annual exhibition has grown steadily until it is now not only the greatest event of its kind in New Zealand, but in the world. This year the exhibition is better than ever, record entries having been received and many new features have been introduced into the programme, which will spread over six days and nights.

Representing the Broadcasting Company at the official opening of the exhibition will be Mr. J. Ball, editor-announcer.

Theatres for Wireless

A Novel Proposal

AN interesting suggestion has been advanced, and enthusiastically discussed in the London Press. This is that the casual listener should be catered for by the provision of special theatres or salons for listening to wireless programmes. The suggestion was first made by a correspondent to the "Morning Post," who pointed out that on the occasion of outstanding events, such as the inauguration of Mr. Hoover as President of the United States, or the institution of a special series of lectures by such an authority as Dr. Bridges, England's Poet Laureate, a great number of the general public who are not equipped with wireless in their own homes would be prepared to pay for the privilege of satisfactorily hearing the events by wireless. The idea, it was immediately recognised, had big possibilities, and an interesting correspondence has developed in the British Press concerning it.

In addition to those who are desirous of hearing special programmes, there is also the opportunity of catering for those who have an odd half-hour to fill in. The continuous picture show meets a felt want in providing entertainment in the cities for those who have spare time between appointments. If facilities were available, part of this floating population would doubtless be diverted to radio listening. Provision of such listening posts would undoubtedly be a good advertisement for listening in general, and would of course lead to the increased installation of home sets.

Another aspect is that, as receiving sets are improved and made more and more highly selective, it would be possible for listeners in one city to be regaled with special programmes from other cities—i.e., listeners in London might be afforded feature programmes such as concerts in Berlin, Paris, Rome, etc.

Added to the radio suggestion is one that television theatres should be provided. This is an obvious corollary because of the extra cost of erecting the home television sets. Doubtless this development will be an outcome of the future.

Relayed to 2YA

A Good Programme

NEXT week, besides the relay from Hamilton, there will be a relay from Masterton. In this case, too, it is the opening of a show. It will take place on Monday evening.

The speakers will be Mr. Hodder (chairman of the Show Committee), Mr. Jordan (Mayor), and the Hon. J. G. Cobbe.

The full concert programme, given below, will provide an excellent entertainment:

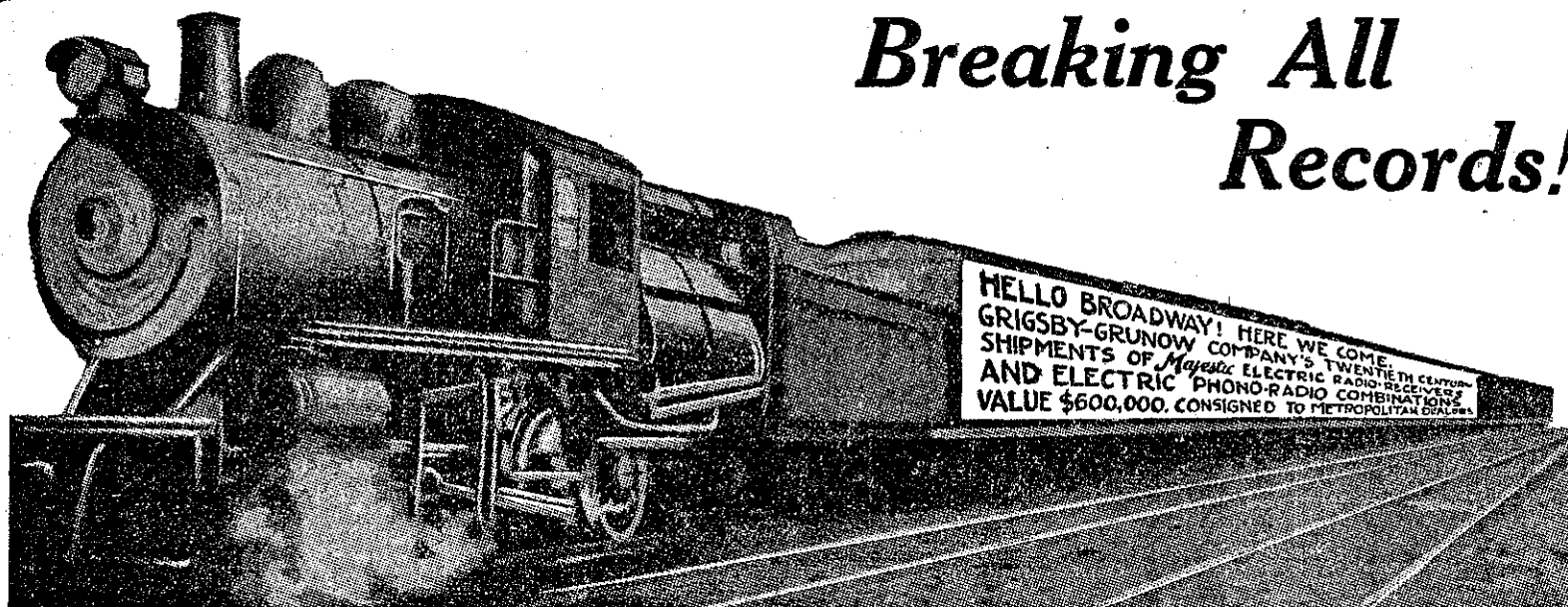
Programme For Opening Ceremony.

- 8 p.m.: Speech, Mr. Hodder (Chairman Wairarapa Industrial Exhibition).
Speech, Mr. Jordan (Mayor of Masterton).
Speech, Hon. J. G. Cobbe.
- 8.30 March, Masterton Municipal Band (Deputy Conductor, G. Hutchison) "Steadfast and True" (Teike).
Fantasia, "Veracity" (Baume).
- 8.40 Chorus, Masterton West School Choir, (a) "Early One Morning" (Traditional Air); (b) "A Lake and a Ferry Boat" (T. F. Hunhill).
- 8.47 Cornet solo, Master Stanley Pearson, "Reverie No. 2" (Clay).
- 8.51 Song, "Prelude" (Landon Ronald).
- 8.55 Elocution, Mr. S. Wilson, "The Caretaker."
- 9.0 Waltz, Masterton Municipal Band, "Red Poppies" (Rimmer).
March, Masterton Municipal Band, "Kneller Hall" (Greenwood).
- 9.8 Interval of five minutes.
- 9.13 Selection, Carterton Silver Band, "Spirit of Youth."
- 9.21 Song, Mr. H. Jones, (a) "Brown Bird Singing"; (b) "Let Me Like a Soldier Fall."
- 9.28 Elocution, Miss Edna Jenkins, "A Bedtime Story."
- 9.36 Cornet Solo, Master Stanley Pearson, "Waiberkehr."
- 9.40 Bass Solos, Mr. B. Venner (a) "Saddle Up"; (b) "Comrades of Mine."
- 9.47 Elocution, Mr. John Rosewarne, "Charge of the Heavy Brigade."
- 9.54 Gavotte, Carterton Silver Band, "Bells of Raubon."
- Quickmarch, Carterton Silver Band, "Trumpeter Bob."
- 10.1 Interval of two minutes.
- 10.3 Jazz band, Mills' Jazz Orchestra: Foxtrots (a) "My Mother's Eyes"; (b) "High on the Hill Top"; one-steps (c) "Let Your Smile be an Umbrella"; (d) "Carmenita."
- 10.15 God Save the King.

The House of Commons

Interesting Lecture at 1YA

IN view of the near approach of the British elections, which take place at the end of this month, more than the usual interest will attach to a talk to be given at 1YA on "The House of Commons at Work." This talk is to take place on Wednesday, May 29, at 7.40 p.m., and the speaker will be Mr. L. J. Cronin, who was for four and a half years in the Press Gallery of the British Legislative House and can talk very interestingly on the inner workings of this political rendezvous.



Above is the 32-car trainload of Majestic all-Electric Console Radio Receivers shipped to New York for distribution in the Metropolitan district. The trainload of receivers is a record consignment of radio equipment, and the radio enthusiasm of the metropolis made possible the shipment of an entire trainload at one time. Over 4000 console radio sets are in the train. This is a day's

output of the Grigsby-Gruno Company, manufacturers of the Majestic Radios. This record-breaking consignment of "Mighty Monarchs of the Air," valued at over £125,000 is supplemented by a 20-car trainload of exclusive No. 72 models, bringing a total shipment valued in excess of £208,333 (1,000,000 dollars).

MAJESTIC

All-Electric Radio

No more charging of batteries, no more connecting dozens of wires and replacing worn-out batteries, no more scratchy, "thin" paper and tin horn speakers, but REAL MUSIC!

Simply plug a "MAJESTIC" into the nearest lighting socket, switch it on and you have a musical instrument with that power and beautiful depth of tone hitherto only equalled by Electric Gramophones costing over £100. Just turn one dial and in they come, station after station, with volume and purity. Altogether a wonderful and entirely new Radio Musical Instrument at a price no more costly than the old-type battery set.

|||||

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Simply attach to any small or inexpensive gramophone and connect to a Majestic Receiver, either Models 71 or 72, and you have an Electric Gramophone equal to those selling at over £100.

PRICE of WEBSTER PICK-UP, with Volume Control — £5/10/-
Do not use any other Pick-up than The WEBSTER.

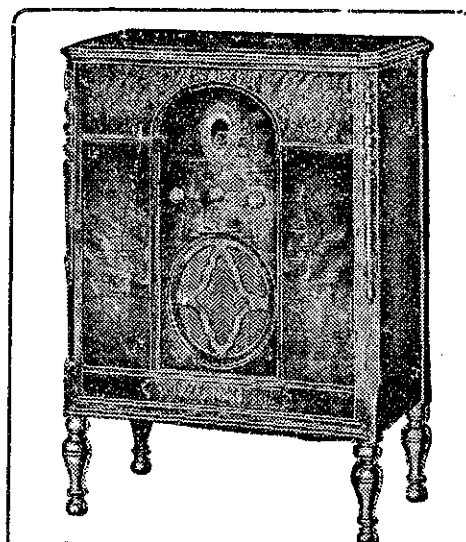
|||||

ALL-ELECTRIC, and embodies all the latest improvements and refinements known to Radio Science.

Seven Valves and Rectifier, complete with Built-in Super Power Dynamic (genuine moving coil) Speaker. Gives immense volume without distortion, yet is pure and sweet when at a volume no more than a whisper.

Compare them with anything else on the radio market. For appearance, performance and above all, VALUE, they stand alone.

THERE IS A MAJESTIC DISTRIBUTOR IN EVERY PART OF NEW ZEALAND.



MODEL 71.—Post colonial period design with instrument panel of matched burl walnut framed by a panelling of bird's-eye maple and matched burl stump walnut. Seven Valves, completely shielded, using R.F.L. balanced circuit. Majestic Super-dynamic Speaker. Volume Control instantaneous in action. Single Dial Control. Price, with Valves and all ready to attach to aerial, Main Ports (Auckland, Wellington, Christchurch and Dunedin) **£48**
INLAND AND OUTPORTS, £50.

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Gisborne.—KEOGH & BELLERBY.
Palmerston North.—BERRYMAN'S MUSIC STORES.

Wellington and Wairarapa.—KIRKCALDIE & STAINS, Lambton Quay; F. J. PINNY, LTD., Willis Street.
Nelson.—WILKINS FIELD HARDWARE CO.
Blenheim.—JOHN BURNS & CO., LTD.
Christchurch.—J. I. SMALL, Colombo Street.
Dunedin.—BARNETT'S RADIO SUPPLIES, Upper Octagon.
Invercargill & Gore.—DOMINION ELECTRICAL ENGINEERING CO., Don Street, Invercargill.

Dealers desiring district agencies should communicate with the above distributors, or direct to the Majestic Factory Representative, G.P.O. Box 462, Auckland.

CHALLENGE!

In New Zealand, as in other parts of the world, the astounding VALUE of Majestic Radio Receivers and the combined Gramophone and Radio Receiver has been a source of wonderment. How can the Majestic be sold at such a low figure?... Is quality sacrificed to arrive at the low price?

The explanation is that the

ENORMOUS ORGANISED PRODUCTION

With a perfect system of supervision and the testing of every piece of apparatus, and the final testing of the completed outfit, enables the Majestic manufacturers to produce

A QUALITY INSTRUMENT AT A QUANTITY PRICE!

This, coupled with the small margin of profit taken by the manufacturers, and the regulated margin of profit between the landed cost and the price to the N.Z. public, explains the low price at which Majestic Receivers are made available to buyers.

Radio Engineers are invited to examine every part of the Majestic Receiver. No qualified radio engineer can point to one defect in the construction of the Majestic.

There is not One Piece of "Shoddy" Apparatus in a MAJESTIC

Even with the enormous power of the Majestic, the total current consumed is no greater than that of an ordinary electric light bulb.

Reason this Out for Yourself!

The Majestic has now been selling since the introduction of the electric set, and the production has increased fourfold in the past year, until, at the present time, 4000 sets per day are turned out at seven huge Majestic factories. Would this be possible, if, in the keenest market in the world for radio material, where **Quality and Value** is the keynote, the Majestic did not measure up **one hundred percent. in every respect.**

PROSPECTIVE BUYERS of radio receivers should not be misled by destructive propaganda, because every Majestic distributor is **prepared to demonstrate against any receiver on the market** for performance, quality of apparatus, appearance, and, above all, **Value.**

AN OPEN CHALLENGE!

Is extended to anyone to prove that the Majestic does not offer **the greatest value** in radio receivers to-day. See this magnificent instrument and hear it demonstrated by the Majestic distributor in your territory. There is a Majestic distributor in every part of New Zealand. If any difficulty in arranging a demonstration, communicate with the Factory Representatives, P.O. Box 462, Auckland; P.O. Box 1581, Wellington; P.O. Box 922, Christchurch; P.O. Box 516, Dunedin.

Broadcasting as a Medium of Education

Interesting Summary of Possibilities by Dr. J. Hight, M.A., Canterbury College



Y subject is "Broadcasting as a Medium of Education." Broadcasting we know; but what is education? This is as difficult a question as what is Truth? Certainly, education is not mere schooling; it is not the formal instruction of the child and the adolescent. It is a process, a complex of influences at work upon all of us through the whole length of our lives; everything of which we are actively conscious contributes to it. It is the leading forth or drawing out of the mind and its faculties, in the direction of the highest. It is the cultivation of what is best in man, and, therefore, always has reference to some standard or ideal. One of our Ministers of the Crown said the other day that he had been educated, not in the University of Oxford, but in the University of Life.

Few can claim nowadays that a university gives, or can ever give, a perfect or complete education; a great many recognise that the means of education lie in ourselves, and all about us ever and everywhere, but they recognise, too, that we shall all be the better able to use these means to the best advantage in proportion as we have been influenced by a good school or university.

BROADCASTING affects education in its widest sense, whether we like it or not. It is already an influence permeating the nations. As an educational medium it has, of course, suffered from its friends. At the outset they sometimes made rather absurd claims as to its value. It has its limitations. After all, the essence of the best education is in the direct contact of personalities, and a broadcasting speech, though more vivid than the printed page, has less abiding force. But broadcast is at work upon our lives, and we should make the best we can of it. This means organisation up to a certain point. There is a special need of this here in New Zealand. Everyone who goes abroad must recognise how difficult it is for us here in these remote islands to keep as fresh and vigorous and progressive as the peoples around the centres of culture and civilisation. Here is what a teacher from New Zealand, now on exchange in England, says in the last "Education Gazette" (May 1, p. 90):—"I think that, on the average, he (the English boy) has wider and deeper intellectual interests than his N.Z. brother. Apart from the advantages of environment, the excellence of variety of the wireless, which is in practically every home, must give a boy a fund of ideas and a breadth of intellectual interests for which the colonial youth cannot hope."

I THOROUGHLY endorse this opinion; but no people can succeed if their intellectual interests are not wide and deep. We in New Zealand should not dwell in complacent comfort, but should strain every effort to attempt to equalise conditions by making wholehearted, well-thought-out and systematic endeavours to give our young people the stimulus of a perfected broadcast.

At home great attention has been given to broadcast in relation to schooling. The B.B.C. and the Imperial Education Conference of 1927 discussed the question very fully and summed up thus:—"In the general discussion, members of the conference and visitors emphasised the importance of close co-operation between the broadcasting studio and the teacher, of good receiving sets, and of careful preparation before each lesson. To this end, it was explained, the Corporation arranges for schools to be visited and issues literature in connection with the lessons, illustrated by

maps, pictures, etc., besides encouraging regular correspondence from pupils and the sending of such matter as essays and tunes.

"The arrangements between the Corporation and the schools in Kent were explained in detail, special stress being laid upon the necessity for literature issued by the studio, for securing the active co-operation of the pupils, and for the careful study by lecturer and class teacher of the technique of the wireless station.

"It was generally agreed that wireless broadcasting offered a means of bringing the inspiration of the expert with a great personality into the school, that its value was probably greater in rural schools than in the large towns, and that its chief instructional use seemed likely to be found in music and language teaching. There could be no doubt of its possibilities as a stimulus and as a means of spreading adult education by means of evening talks."

Adult Education.

I HAD the pleasure of being present during the discussion at the Imperial Education Conference and what I say is coloured largely by recollections of it and the report of a special committee which examined the whole question.

These two developments, broadcasting and adult education, are special features of the last 25 years. Their appearance together was a happy circumstance, destined as one was to help the other.

In country districts in Europe the war stimulated the formation of clubs, guilds and institutes, especially of women. These created a demand for lectures, plays, concert recitals, etc. In the towns similar social groups were formed, with definite educational work in view—literary, musical, dramatic, scientific, artistic. The Governments encouraged the movement. In England, e.g., courses of 15 and 18 hours, even shorter courses and single lectures, were recognised for State grants in aid. The need in question could not be satisfied by the regularly continuing classes that were already in existence for more or less advanced study. There was a hungry multitude clamouring for pioneer single lectures, short courses, talks on music, books, drama, politics. And thinking people began to realise the immense significance of this new demand. In our democratic structure of society everyone has to discharge great responsibilities. And sound decisions are possible only when the individual can free himself from prejudices of all kinds and maintain a just balance between emotion and reason.

Moreover, the children at school or college are fast advancing in knowledge of the newer science of the day, and mother and father must find a short and easy way to keep pace with

them if they are not to be thought old-fashioned and out of date, and if the family is not to lose the feeling of intellectual kinship.

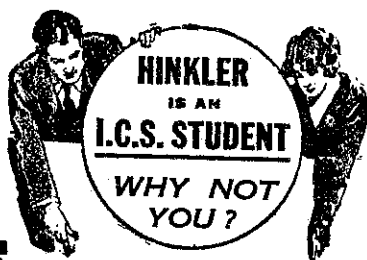
How Broadcasting Can Help.

CAN broadcasting help the present types of adult education? Undoubtedly it can. The ordinary means of education do not attract all adults who would like to have their outlook broadened. Some shy at the very mention of education; the word arouses most unpleasant recollections of their boyhood; some do not realise the wide range of interests that education satisfies; some have very good reasons for not leaving home in the evenings; some live in districts thinly populated or remote; some cannot find the money or the tutors; and for the most part only one subject can be offered at a time. In all these cases you will easily see how broadcasting gives just what is required.

Some people fear that its appeal may be too strong, that it will reduce the number of those who will undertake really hard intensive study. The W.E.A. in England feared this; but the real student will always prefer the ordinary means of studying if these can be had; nothing can replace the personal contact of student and teacher. The part of broadcast will be to draw attention to, to stimulate, and to supplement the activities of educational bodies. It can arouse interests in individuals and groups which can be satisfied only by further study in regular adult classes. It does this at the same time that it is keeping people abreast of the developments in modern life and giving information not yet made available in books or periodicals. The uses and the defects of broadcast as an educational medium are well summed up thus:—"It remains as true as ever that there is no royal road to learning and that education in the true sense does not begin till the learner, by his own efforts, begins to master the branch of study he has chosen. Nevertheless, it is a great thing to have a lift on the road and to get, as it were, a view of the promised country before embarking on the pilgrimage. To hear the great man who has overcome the difficulties and reached the heights ought to be a supreme incentive to face the toil which real learning will demand."

What Subjects?

WHAT subjects are best suited to a broadcast educational programme? They are such as will convey new knowledge or suggest new points of view or create new perspectives. (1) Foreign affairs. In many ways broadcasting is intimately concerned with international relations. The weekly 15 minutes' talk on world affairs in England is very popular and has a wonderful enlightening effect. (2) Empire relations; this is preparatory to the time when the members



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R.R.

of the British Commonwealth of Nations shall be able to listen to one another's programmes. (3) Interests that appeal to the individual; popular hobbies. (4) Music, where it is easy for the listener to concentrate, and for the lecture or exposition to be accompanied by illustration. (5) Literature, including the drama. The fine reading of fine poetry in England has greatly increased the popular appreciation of the essential elements of poetry. (6) Languages, English and foreign; the Germans have developed a very interesting and effective technique in teaching conversation. (7) Subjects capable of vivid descriptive treatment—lives, travel talks, historical sketches, science, health, farming practice and science. (8) Problems of business, citizenship, politics. The last class suggests a question:—Should controversial subjects be tabooed? Most certainly not. That would be to shut out what are among the most stimulating and important of matters. But great care must be used. Only men who are leaders of thought, and have a due sense of their responsibilities should speak on such subjects. All points of view, without exception, should be expounded. Then shall there be much profit to the nation "if listeners can acquire the habit of hearing with patience and equanimity, differing points of view expressed in an authoritative, reasonable, and fair-minded way." Debates are recommended as being effective and popular; the speakers are partisan, but that is understood; there is an atmosphere of fair play, and the public can listen with amused tolerance or sit in serious judgment.

Duty of the Listener.

BUT we are talking of really educative broadcast. If the listener is to get real benefit he must first make a definite mental effort to concentrate on the subject in hand or at his ear. Secondly, there should be within his reach aids to study in the shape of books, suggestions for discussions, etc. Publications must form an essential part of a programme of educational broadcast, and here one could say a great deal of the way in which public libraries in England co-operate with the B.B.C. Thirdly, since the contact of minds is an essential feature in education, the listener should form one of a group for discussion. These groups in England keep in touch with the lecturer of the studio by sending him questions and suggestions through their leader.

I hope I have said enough to show that there is a strong case for regarding wireless as a possible powerful factor in education peculiarly well adapted to play a very important part in adult education; that its potentialities in shaping national outlook and opinion, particularly in a country like ours, thinly populated and also far removed from the great intellectual centres of the world, should attract the attention and interest of the Government with a view to an investigation and assessment of these possibilities; and finally that to secure a full measure of advantage it will be necessary to devise with great care organisations, both local and national which will be responsible for the establishment and maintenance of regular and well-thought-out courses. Here the practice of the Old Country, though still in the experimental stage, would be of great value.

Amateur Radio Society

Address by Mr. Owen

THE annual meeting of the Amateur Radio Society, Wellington, will be held in the Dominion Farmers' Institute Building on Monday, May 27, at 8 p.m. It is hoped that a large attendance of members and other listeners will be recorded. Following the discharge of the formal business, the late president of the society, Mr. J. H. Owen, will give an address on his experiences of broadcasting in other countries and a demonstration with a portable receiving set. Mr. Owen has just returned from an extended tour, and it is certain that his remarks will be of great interest to listeners.

Apart from this attraction, the society is desirous of the special support of listeners. It fulfils a very useful function to the cause of radio, and listeners will be consulting their own interests by giving it support.

MR. R. L. JONES writes:—I should like to make an appeal to listeners in the Wellington district to join the Wellington Amateur Radio Society and attend the next annual meeting. It is obvious to those who care to study the facts that district societies of listeners are essential if radio broadcasting is to progress on the right lines; for no matter what those in control of broadcasting may think and believe, due recognition to the requests of listeners must be given by those in authority over broadcasting. The work of the society is done voluntarily by a body of keen men—men who are actuated by the very best desires and ideals; and the close attention given to detail on behalf of listeners as a whole could not be amply paid for out of the small subscription; the latter being only sufficient to cover cost of meeting rooms, postage, and other petty expenses. The society depends upon subscriptions for its existence.

Apart from subscriptions and finance generally, comes the matter of attendance at meetings. It is very disconcerting to a president and his executive officers if meetings are not well attended. The least listeners can do is to attend the meetings, which are held approximately each month. It is no sinecure to run a society on small rations; and much worse to try and run a society if members do not roll up regularly; worst still, if the public won't even join the society. The society jumped from, roughly, 30 or so members about two years ago to somewhere in the vicinity of 300 or more members, and it should be ten times that number and more. Wellington is known as a city "hard to shift"; only an earthquake seems to liven people up. Let us hope that this stigma will be removed as far as radio listening is concerned. Whether a member or not, all listeners should attend the next meeting.

Have you secured your copy of

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

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B.B.C. Decisions

Much Public Comment

SOME of the decisions of the B.B.C. authorities are occasioning a good deal of comment in the British Press. Recently it was announced that the names of announcers would not be made public. Next it was decided that the names of dance tunes being broadcast should not be given. Following on this it was intimated that the names of actors in radio plays should not be announced to the public.

The reason behind these decisions is the desire to concentrate the attention of the listener upon the actual performance rather than upon the individuality of the announcer or the performer. The reason for withholding the names of dance tunes was the desire to avoid giving gratuitous advertisements to such tunes. The B.B.C. had been in the habit of broadcasting the public performances of such well-known bands as those maintained at the Hotel Cecil, the Savoy Hotel and the Kitcat Restaurant. The conductors of these bands developed the practice of announcing to the patrons assembled (and to the listeners) the name of the tune to be given, and it was felt that in some cases use was being made of this to attract attention to new dance numbers being placed before the public. Negotiations between the B.B.C. and the various bands for the avoidance of the habit proved unavailing, and eventually the practice of broadcasting these bands was abandoned.

The explanation of the ceasing to give the actor's name in the case of a broadcast of radio plays is that the object is to place emphasis on the play, and not on the player. It is desired that the actors should be disembodied from their own personalities and assume the roles of those they play.

These decisions have not proved acceptable to all listeners, and, as indicated, a good deal of correspondence of a diverse character has appeared in the British Press. Some actors, who are well known, who in the past have been appearing in wireless plays, take the view that the B.B.C.'s decision would probably affect the calibre of the actor taking part in radio plays. The publicity derivable from mention of the performer's name over the air was accepted by some actors as being part compensation for the relatively small fees paid by the B.B.C. for the performances. With that eliminated, it was felt that either the fees would have to be increased or a lower standard of acting accepted.

Long Distance Relays

Whangarei Offers Band Concert

LONG-DISTANCE relays were carried out in the South Island last week by the Broadcasting Company, with very satisfactory results. Thanks to the efforts made by the officers of the Post and Telegraph Department, excellent telephone lines made suitable for broadcasting purposes were at the disposal of the YA stations.

Other proposed relays are Timaru on June 10 (Orchestral Society's concert) and a band concert from Whangarei. This will take place on a Sunday evening on a date to be arranged, provided a relay line is available.

Comments of Listeners

Quality of Programmes

THE fact that we have received no further letters from listeners in response to our request for comments on the quality of programmes issued, may be taken, we think, as a definite indication that a general degree of satisfaction prevails with the efforts being put forth to cater for all tastes. One letter has come to hand couched in strong terms of condemnation of the Electrical Federation's move, which we dealt with a fortnight ago. This correspondent suggests that listeners would see through the reasons behind the move and expresses the opinion that the "forty thousand delighted listeners" do not grudge their payment for a whole year's splendid entertainment, education and pleasure. It gave him much pleasure to assert that so far as he was concerned as a voluntary critic of the company's service, his suggestions, requests and objections had been invariably attended to with every satisfaction to himself and those listeners in his district who had been good and candid enough to set out their opinions in regard to the services they had been receiving. He was pleased to be able to reiterate that the only complaint that he had ever had to make in any of his reports, had been the presence in his locality of owners of sets who through ignorance or cussedness create howling in other sets.

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"N.Z. Radio Listeners' Guide."

Greatly Appreciated by Readers.

WE are glad to say that very marked appreciation is being expressed by readers in connection with our annual publication, the "N.Z. Radio Listeners' Guide." This book, issued on the 1st of May, is meeting with an exceptionally strong demand. On all sides praise is being extended for the completeness of the explanations given in its pages of all phases of wireless. Particular pains were taken in the compilation of the book to simplify technical terms to the greatest possible extent, in order that beginners in radio should be able to derive the highest benefit. This objective has been met, as booksellers report that comment on the part of buyers is that the Guide is indispensable to the beginner, and greatly simplifies his understanding of it.

The following are a few extracts from letters received by us:—

"IN praise for your 'Radio Guide,' of which a copy I bought last week, I cannot say too much. I used it in making this booster, for in your paper the correspondent said use fifty

turns of No. 18 wire. Having no No. 18 wire but a lb. of No. 24 d.c.c. I consulted the table in the 'Radio Guide.' Thanking you and wishing you every success."

"I have purchased a copy of the 'Listeners' Guide' which I think is a very fine piece of work."

"I have yet only glanced through the 'Guide' and consider it even better than last year, and that is saying a great deal."

"I have a copy of your latest handbook which I wouldn't be without for worlds."

"I must say that the 'N.Z. Radio Listeners' Guide' is worth its weight in gold; it is a first-class book for all interested in wireless—everything is simplified to the last degree. The glossary of wireless terms is what was badly wanted by the amateur like me. Trouble-tracking is also a boon. When reading the 'Record' or radio journals it is a great deal easier to follow as one understands by referring to the

Lecture from 1YA

AN alteration from the published programme for 1YA has had to be made, in that the lecturette to be given at 7.40 p.m. on Thursday, May 23, on "Confectionery," will be delivered by Mr. C. M. Browne.

Education by Wireless

Economics for Listeners-in

THE W.E.A. series, broadcast from Station 4YA, on "Why Incomes are Unequal," will be continued on Tuesday, May 28, when the causes of inequality of income derived from work will be discussed.

Most of us who receive incomes in New Zealand do so as the result of the performance of certain pieces of work. We are wage-earners of salaried officials, or working on our own account, receive an income which, though more variable than wages or salary, is equally a payment for the performance of labour. Probably in New Zealand, as elsewhere, the biggest incomes are those received by owners of property, and to them we shall turn our attention next week, but the inequalities of incomes derived from work are also obvious and demand an explanation. Unfortunately we have not yet got in New Zealand a complete statistical statement of the differences in individual incomes. The results of the inquiry which was included in the last census (1926) have not yet been published in full, and the unfortunate confusion, or perhaps fear of the tax-collector, which led some people to return themselves as having no income, when in fact they were by no means dependent on the charity of others, will make it a little difficult to interpret the results when they are published. We already know enough, however, both from statistical inquiry and from general observation, to be certain that very wide variations exist here among current wage and salary rates. In 1927 the average weekly earnings of male employees engaged in factory production was £4 9s. 6d., but the award rates for specific industries varied from 78s. for bakers' labourers to 145s. for hotel chefs. It is difficult to get detailed information about other incomes, but no one doubts that the average income of doctors and lawyers is much above that of even skilled artisans, while the incomes of the most fortunate or the most skilful professional men are certainly very large. The average income of employers again is certainly substantially greater than that of their employees. Of 40,535 married male employers, at least 14,214 or 35 per cent. of the whole returned themselves at the last census as in receipt of an income of £7 or more per week, while of 154,127 married wage-earners (which here includes persons with salaries) the proportion was only 10 per cent., or 15767.

Is Inequality Inevitable?

CRITICISMS of inequality are frequently met with the objection that it is futile and utopian to aim at absolute equality of incomes, because if such a condition were established, even for a moment, it would immediately be upset as a result of differences in skill, in industry and conscientiousness, in physical strength and intellectual alertness. To some extent this is no doubt true, but the criticism is misleading if it suggests that differences in incomes from work can be ex-

plained only or even mainly by reference to these qualities. An industrious carpenter usually earns more than a lazy one, a conscientious doctor more than his rival who shows himself careless of his patients' interests. But we are more interested in discovering why there are such differences between the average earnings of various groups of workers than in explaining the differences which exist within the groups.

Lawyers and Watersiders.

WHY does the average waterside worker earn so much less than the average lawyer? The simple, though not perfectly complete answer is, because waterside workers are so much more plentiful than lawyers. If we wish to improve the economic position of waterside workers, in comparison with the economic position of lawyers, the best way to go about it is to increase the scarcity of waterside workers.

How can this be done? The only way is to open up other channels of employment for men who are now waterside workers, or for men who, as things now are, would tend to move into that employment. This at once suggests one of the most important causes of existing inequalities. It is unlikely that any very marked differences will be observed at any one time between the wages paid, say, to plumbers in different parts of New Zealand, for, if there were, plumbers would quite quickly move from that part of the country where their wages were low to the part where they were high. Why cannot we move in the same way from the watersiding industry where wages are low to the legal profession where earnings are high? The answer is again obvious, that the legal profession demands training and experience which the waterside worker does not possess. But why does this not merely postpone the transference? The man who is a waterside worker today may be unable to change his occupation, but why he should not give his sons the training and education which will enable them to receive the higher incomes which are customary in the professions?

The Importance of Care in the Selection of Parents.

IN very rare cases of course he does, but such cases are so rare as to attract an altogether disproportionate share of public attention. Usually the expenses of training are so great that the chances of a poor man's son training for work which is well paid are definitely less than those of a rich man's son of the same standard of inherent capacity. This is true even in New Zealand with its generous public provision for education. The number who surmount the barriers here is no doubt rather larger than in the Old World, but that does not prove that the barriers do not exist. Unequal distribution of income in one generation is itself an important cause of still more unequal distribution in the next generation.

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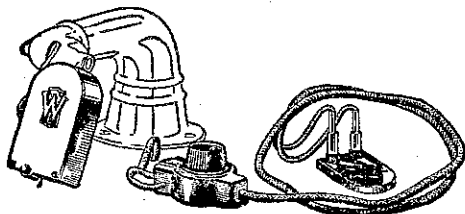
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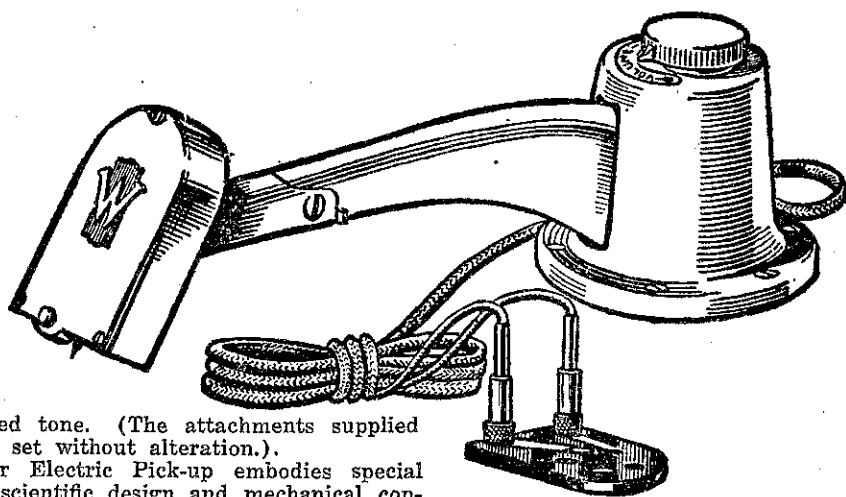


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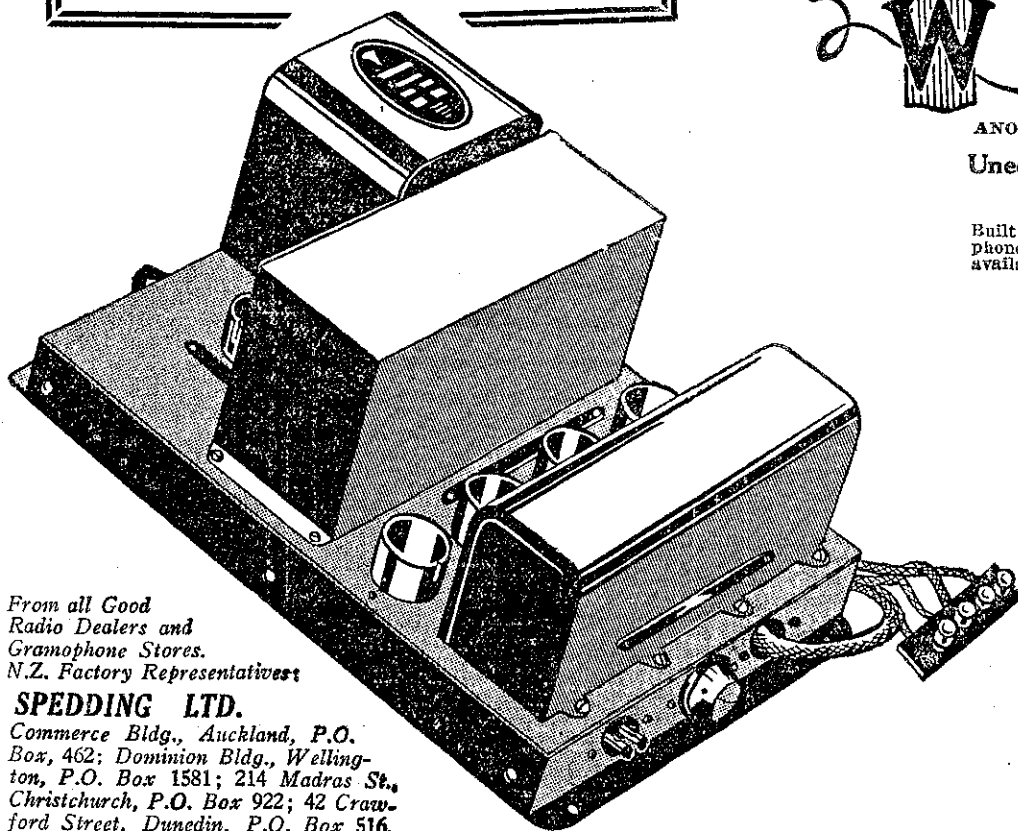
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Broadcast Music for Coming Week

"'Tis the deep music of the rolling world,
Kindling within the strings of the waved air—
Aeolian modulations."

—Shelley.

By
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"They Married and Lived—"

FRANCOIS ADRIEN BOIELDIEU was the son of the secretary of the Archbishop of Rouen and a milliner. During the Revolution his parents were divorced, and he took up his residence with his music master, Broche, organist of the cathedral, who was a drunkard, and abused him so that the lad ran away to Paris. His family brought him back, and he stayed with Broche until he produced his first opera, for which his father wrote the libretto. He went to Paris and produced several operas and wrote numerous songs. In 1800 he was successful in winning a professorship of the piano at the Conservatoire, and in that year his greatest success, "Caliph of Bagdad," was performed. Owing to domestic trouble he accepted the post of conductor of the St. Petersburg Opera, which he held for eight years. He returned to Paris

and wrote several more operas, and married the singer, Phillips, with whom he was very happy.

The station orchestra at 1YA will play the overture to the "Caliph of Bagdad" on Thursday, May 30.

"Dear Old Swanee."

THE "Plantation Songs" of Stephen Collins Foster are among the masterpieces of music. There is an appeal in every cadence of their melodies, a touching beauty in every line of their lyrics. Nothing quite like them had existed in music before Foster gave them to the world, and whatever of his character has been written since has borrowed something of the sweetness and soft loveliness of Foster's immortal songs.

A record of Sophie Braslau and a male quartet singing Foster's "Old

Folks at Home" will be used at 1YA on Wednesday, May 29.

A Great Modern Goes East.

CYRIL SCOTT has written numbers of songs and piano pieces, and quantities of chamber music which are too seldom heard. Of his piano pieces one of the best known is the very atmospheric "Lotus Land." The soft languor of Egypt, the tinkling sounds, the long reaches of sky and river, scented gardens, the sound of falling water, all the mystery of the land where the lotus blooms is re-created in the fascinating cadences of this singularly successful piece of descriptive music.

Mr. Cyril Towsey will play Scott's "Lotus Land" at 1YA on Friday, May 31.

"East is East, and West is West."

"**LAKME**" is Delibes's most successful opera, and is very popular in France. The story deals with Lakme, who is the daughter of a Brahmin priest. A party of English tourists accidentally enter a sacred grove and Gerald, one of the party, has not time to leave before the priestess enters, and he is forced to hide. Lakme sings, and Gerald makes himself known, and declares his love. The priest enters as Gerald leaves, and vows vengeance. They again meet in the native bazaar, and when Gerald presses forward to see Lakme, he is stabbed in the back. Lakme has him taken to a secret bower in the woods, and nurses him back to health. One of his friends finds him and persuades him to return. Lakme realises that life will be nothing without Gerald, and eats a leaf of a poisonous plant, and expires in her father's arms.

The Studio Trio at 1YA will play selections from Delibes's "Lakme" on Tuesday, May 28.

Butterfly Anticipates.

WHEN first produced in Milan, Puccini's opera, "Madame Butterfly," was a failure. It was revised and again presented some months later, when it was most successful. This same fate befell "Faust" and "The Barber of Seville," both of which are among the greatest favourites to-day.

In "Madame Butterfly" there appears for once a hero whom all can cordially dislike. To pass away the time while his ship is stationed in Nagasaki, he contracts a marriage with a Japanese girl, despite the fact that he is already married. She has long admired him from afar, and is only too willing to enter into the contract. When he sails away he promises to return to her, but three years elapse and he has not come. Butterfly's maid tries to persuade her that he is false, but in the beautiful aria, "One Fine Day," Butterfly insists that he will return. He does, and accompanied by his wife. Butterfly realising all, commits harakiri, and Pinkerton, her lover, finds her dead.

Miss Gretta Stark will sing "One Fine Day" at 2YA on Friday, May 31.

Weber's Revival.

UNDOUBTEDLY one of the most distinguished composers England ever produced was Sir Henry Bishop. He wrote eighty-two operas and vaudevilles, ballets, songs, and revisions of old operas. He was born in London in 1786, and at an early age began to study music with Blanchi. In 1810 he was made conductor and composer at Covent Garden. In 1825, he was engaged to compose for Drury Lane, in rivalry to Weber, and produced "Aladdin," in opposition to Weber's "Oberon." His last dramatic work was "The Fortunate Isles," produced at Covent Garden to celebrate the queen's wedding. His wife was a highly esteemed concert singer, who toured America and Australia with the harpist, Bochsa, who died in the latter country. Bishop died in 1855, and was buried at Finchley.

The band of the First Battalion Wellington Regiment, conducted by Lieut. B. J. Shardlow, will play a selection introducing several of Bishop's best-known songs, at 2YA on Thursday, May 30.

The Most Popular Air.

"**OMBRA MAI FU**" is the beautiful air for alto voices known the world over as Handel's "Largo." It was written originally as an aria in the opera "Xerxes." The style in which



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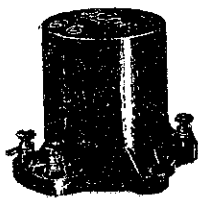
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it is written, which is indicated by the title, an Italian word expressing great breadth and flowing melody, is one in which Handel was particularly distinguished. There are more passages in Handel's works in the "largo" style than in any other.

Miss Edith Buckmaster, contralto, will sing "Ombra Mai Fu" at 2YA on Friday, May 31.

A Nature Picture.

CECILE CHAMINADE was a composer at the early age of eight. She gave her first concert when 13, and at once became a favourite pianist, appearing throughout Europe in recitals of her own works. One of her most brilliant works is "Autumn." The piece is in the nature of a ballad and contains a superb climax, almost orchestral in character. In it she has treated the delightful theme with great skill and fine musicianship. It is almost like a hymn in celebration of the festival of harvest, and the rich colours and fine sonority typify the generous beauty of autumn.

Mrs. J. E. Russell will play Chamina-de's "Autumn" at 3YA on Thursday, May 30.

Old Omar Sings.

LIZA LEHMANN'S song cycle, "In a Persian Garden," is a sympathetic and colourful setting of verses from Fitzgerald's translation of the Rubaiyat of Omar Khayyam, Persian poet. It is interesting to know that, while this famous poem was written over eight hundred years ago (Omar died in 1123), it is full of modern philosophical thought and poetic imagination.

The Grand Opera Quartet at 3YA will sing the quartet "They Say the Lion and the Lizard Keep," from Lehmann's "In a Persian Garden," on Sunday, May 26.

Inanimate Nymphs.

HANDEL composed his "Acis and Galatea" for the Duke of Chandos in 1721. It was produced to the public in 1731 at a benefit concert for the singer Rochetti. An advertisement of the performance states that the stage would be decorated with rocks, groves and fountains, among which would be disposed a chorus of nymphs and shepherds, but the actors would be seated on their rocks "with no action." As was the custom in those days, Handel had left in his oratorios the organ parts ad libitum, giving only an indication of the bass. Mozart was such an admirer of Handel that he filled in some gaps in most of the works, and amplified the orchestration of "The Messiah," "Acis and Galatea," and several others.

The Woolston Band, under the conductorship of Mr. R. J. Estall, will play selections from "Acis and Galatea" at 3YA on Monday, May 27.

Communing with Nature.

SO dearly did he love the hills and streams of his native New England that the district round about his home spoke to Edward McDowell in a language which he alone understood. What they whispered to him he translated in his beautiful suite of "Woodland Sketches." Such music as is offered in these exquisite pieces seems the ideal expression of the mood and picture he would create for us. In "To a Wild Rose" we have the fragile beauty of the dainty flower truly reflected, and "To a Water Lily" the

fairy loveliness of the blossom is portrayed.

Mrs. J. E. Russell's Ladies' Glee Club party will render McDowell's "To a Wild Rose" as a three-part song at 3YA on Thursday, May 30.

Jenny Lind's Pianist.

SIR JUIUS BENEDICT exercised as great an influence on English musical development as any foreigner settled there since Handel's time. He was a native of Stuttgart, where he was born in 1804. He conducted various orchestras and theatres in his birthplace, Vienna, Naples, and Paris. He went to England in 1834, and proved several of his operas, which were immediate successes. He toured the United States with Jenny Lind, directing the concerts, and on his return was conductor at the various festivals throughout England. In 1871 he was knighted, and received many foreign orders on his 70th birthday. He died in London in June, 1885.

The Grand Opera Duo will sing a duet, "The Moon Hath Raised Her Lamp Above," from Benedict's "Lily of Killarney," at 3YA on Sunday, May 26.

England's Parson-Poet.

THE words of "Cherry Ripe" are Robert Herrick's, who was vicar of Dean Prior in Devon. There he was buried in the churchyard in 1674. He was expelled from his living during the Protectorate, but lived to be reinstated under the Act of Uniformity. His poems contain many hits at his parishioners, whose manners, he says, "were rookish as their ways"; but they are full of the wild flowers—dandelions and primroses—which abound in the orchards and hedgerows of Dean. Charles Edward Horn, who wrote the music, was the son of a German musician who settled in London in 1782. He produced a number of operas, but none of them have lived. "Cherry Ripe" first appeared, set by Horn, in 1825.

Miss Dorothy Allen, contralto, will sing "Cherry Ripe" at 4YA on Wednesday, May 29.

The Fragrance of the Pine.

THE greatest of the Scandinavian composers, Edward Grieg, is distinctly a national composer, and his music seems to almost carry the fragrance of his native pine woods into the concert hall. His many short piano pieces and his beautiful songs show this composer to great advantage. He has written no more successful work than "To Spring." It seems a veritable hymn to Spring, has the fascinating melodic quality and beautiful harmonies inseparable from Grieg's music.

The 4YA Broadcasting Trio will play Grieg's "To Spring" on Friday, May 31.

Storing Wet Batteries

A WELLINGTON listener has requested "Switch" to advise him what to do with his wet "A" and "B" batteries, as he is about to go away for a couple of months. The best plan is to store them at a battery station, with instructions to re-charge them every three or four weeks. There is always a certain amount of leakage in all batteries, and as damage results from their running down too low, it is a wise practice to get them re-charged periodically when not in use.

Air Route to India The Wireless Organisation

THE wireless organisation for the air mail service to India, which opened on Saturday (March 30), has been completed so that the aircraft engaged will be in touch with aerodrome ground stations throughout the 4700 air miles of the journey.

All the aircraft are equipped with Marconi wireless apparatus of the latest type, and an inter-communicating chain of ground stations has been arranged.

The first section of the route is the London-Basle flight, on which the present wireless organisation for continental aviation was employed. This consists of the powerful Marconi aerodrome station at Croydon, French stations at Le Bourget and other intermediate places on the route, and the Marconi stations at Basle. The machines operating this section of the route are fitted with Marconi sets of 150 watts power, of the well-known type AD6, adapted for communication over distances of 200 to 300 miles either by telephony or telegraphy.

From Basle the night train to Genoa makes the connection with the second section of the air route, from Genoa to Alexandria, which is to be operated by three "Calcutta" flying boats fitted with the more powerful Marconi type AD8 sets. These sets are also adaptable for telegraphy or telephony, enabling the pilots to keep in touch with Italian and British Air Ministry wireless stations until arrival at Alexandria. In addition, Imperial Airways, who are conducting the London-Karachi service, have stationed a depot ship at a point in the Greek Archipelago. This has been fitted with a Marconi valve transmitter of ½ kilowatt power (type U) and suitable receiving equipment (Marconi type RG 19 receiver), and will be capable of

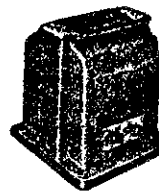
communicating with Malta, Alexandria (Aboukir), and other stations concerned with the service.

At Alexandria a change is made to aeroplanes again, to continue the service over the third and final section of the route, through Basrah and over the Persian Gulf to Karachi. Part of this section has already been in operation for some time, employing De Havilland aircraft fitted with Marconi AD6 apparatus and communicating with Royal Air Force stations; and a ½ kilowatt station at Rutbah Wells, which was supplied by the Marconi Company to the Irak Posts and Telegraphs Department. During the flight from Basrah to Karachi, the machines will be in touch with two Marconi stations in Persia, at Chabar and Bunda Abbas. Persian operators for these stations have been trained at the Marconi Company's Works at Chelmsford.

The terminal wireless station at Karachi is one of the most powerful aerodrome stations installed at any air port.

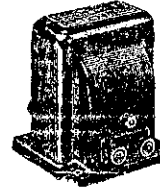
Many features of the Marconi apparatus for this service have been specially designed to meet the conditions existing on this new Empire route. The constant-speed windmill generator, which provides power for the wireless installation, will also supply current for the internal and external lighting of the aircraft. In the unlikely event of a forced landing being necessary, the same generator can be used to supply emergency power to the transmitter either by the use of the battery normally used for lighting or, if it is required to work for long periods, by means of a special coupling arrangement to the small petrol engine used for starting the main engines of the aircraft. Thus, even if a machine were forced to land in the solitudes of the desert country, which is to be found along the route, wireless communication could be established with the nearest ground station and any required assistance could be obtained.

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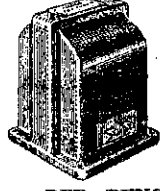
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2YA Revue Company.

I HAVE perused the letter signed by "Good Entertainment" in the issue of the "Radio Record," dated May 17.

I think your correspondent must be labouring under a delusion with regard to the 2YA Revue Company. He states that he had invited some friends to listen on their last Friday evening with him, and that they were well satisfied with the programme until "this nonsensical stuff" came on.

Now, in fairness to the 2YA Revue Company it should be made clear that their initial and only performance up to date was on a Saturday, not a Friday. But even assuming that your correspondent is just mistaken in the day of the performance, and that he and the friends really were listening to the 2YA Revue Company, it is a little difficult to understand his comment that "they were well satisfied with the programme until this nonsensical stuff came on," considering that the entire evening performance was provided by the 2YA Revue Company.

Moreover, your correspondent states that "after listening to many concerts in various parts of the world" he has "never heard such matter." It would be interesting to know if his wide experience includes London, because 75 per cent. of the matter he complains about has been presented in the principal London revues during the last year or so, with outstanding success. Is London's taste so very poor?—Victor S. Lloyd (Wellington).

Conditions in Hawke's Bay.

I NOTE "Record" dated May 17, 1929, three complaints from correspondents in reference to the diminished power of 2YA. K.S.G. suggests the company is trying to make things

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.

better for owners of valve sets. I do not know if this is so, but personally I would like to stress the point that as an owner of valve sets, reception of 2YA has not been good since the day 2YA's aerial collapsed in a gale some weeks back. My sets, a nine-valve and a three-valve, used as an emergency, have been thoroughly tested out, and reception on all other New Zealand and Australian stations is above the average. In fact, the three-valve set is bringing in the 2BL children's session with big volume, on a 16ft. horn-speaker, and yet on the same voltages and aerial we cannot get 2YA worth listening to. We used to glory in 2YA's clear afternoon session, and in the evenings, when static became bad, we could cut down on the big set until the static was not heard. Now that is gone, and the big set has to be opened out and the small one is useless. Also fading is so bad that the station entirely disappears, a thing that did not happen before. I hope the company will be able to restore the old volume and give us something to get our backs up against when fighting "Old man S."—Radio (Hawke's Bay).

Programmes Improved.

I AM pleased to note that the programmes provided by 2YA have improved considerably of late, much of the so-called "high-brow stuff" being curtailed. I am rather fond of some

of the classic numbers rendered, but through repetition they become monotonous, also I think a few of the artists that perform so frequently should be pensioned off. The announcer has a way of his own; he has a pleasant voice, but his pronunciation of some of the foreign words is—well, to say the least of it—unique. He uses the word diminution frequently, but perhaps when he reads this he will be wondering where he gets that "a" from! The dinner music innovation is a distinct improvement. As for the "news and reports" session, I am willing to suffer that, as I recognise it is of value to the country people, but having already absorbed most of the news of the day before it is put over the air, you can imagine how interested I am. However, it is easy to cut it out. Generally speaking, we listeners get our thirty bobs' worth, but the Broadcasting Company being simply a commercial project, will realise from experience that what the public wants it will have. I am glad that it has been decided that the air shall not be polluted with advertising piffle, though some of the alleged talks put over run dangerously close to it.—"Sapiensis" (Upper Hutt).

"What is Wanted."

THE YA stations programmes taken on a whole are all that can be desired, but I hope the Radio Broadcasting Company do not give us too much of one thing. Shakespeare Night, in particular. What is wanted by the majority of listeners, I think, is plenty of bright and breezy music, with a good variety. It is to be hoped that the Radio Broadcasting Company will see their way clear to give us dinner music from 1YA, Auckland, and start the children's session at 5 p.m., as I think most mothers like to see their children in bed as early as possible these cold, wet nights. I must say that 1YA, Auckland, put over a great treat to-night, Thursday, it putting on a concert from the Auckland Radio Society. It was really good to listen to, and I must give credit to the society. I sincerely hope we will hear more from them. Wishing you and the Radio Broadcasting Company every success in putting radio on a sound footing.—N.Z.R. (Otahuhu).

What Was This?

WHILST listening-in to a lecturette on "Sugar" a few nights ago at 1YA at about 7.35 p.m., I could hear an orchestra playing Suppe's "Light Cavalry" overture. Could any of your readers tell me what station this would be? It came in so loud at times that it nearly drowned the speaker.—"Puzzled" (Auckland).

2YA and Reception.

WHAT is wrong with 2YA? Since the windy night in Wellington when so much damage was done to the aerial, the volume from this station has considerably decreased. Previous to the breakdown the volume was so strong that I had to detune at times,

with the control knob just connected. Now I must have the exact setting (a point one way or other will cut them out) and the control knob turned well on. There has also been slight fading at times. Static is also more pronounced. I only had to close down on one occasion previous to the breakdown, but now it is fairly frequent.

Now, I know it will be said it must be my set. Well, if this is so, there must be a good many sets out of order, in and around Masterton, as I have spoken to a number of owners of sets, and they are all of the same opinion. Also, if it is my set at fault, why should I get all Australian stations without increasing my volume control from 2YA setting? I have always had to increase it before. I not only get Australian stations without altering the volume control, but reception is 100 per cent. better than 2YA. Pleased to say 4YA is coming through with good volume at the present time. I would like to congratulate 1YA for the splendid evening's entertainment of May 2, "A Night of Convivialities," and would like to have more of that class of entertainment from the YA stations.—J.W. de C. (Masterton).

D.X. Notes

5BN, Adelaide.

IN reply to D.G. (Wellington), I have heard a station on the same wavelength as 3YA which I take to be 5BN, Adelaide. I heard the announcement given quite clearly, but was not quite positive as to whether it was BN or CN. The following results on three valves may interest DX readers:—New Zealand: 1YA, 2YA, 3YA, 4YA, 2ZM, 2ZK, 2ZF, 1ZQ, 1ZB, 4ZL, 4ZA, 2YB. Australia: 2BL, 2FC, 4QG, 2GB, 2UE, 2UW, 2KY, 3EO, 3AR, 3UZ, 7ZL, 5CL, 5BN(?). Japan: JOAK. America: WENR, KNX, KHJ, KVOO, KFOX.—E. B. Boyd (Waverley).

1YA Musical Committee

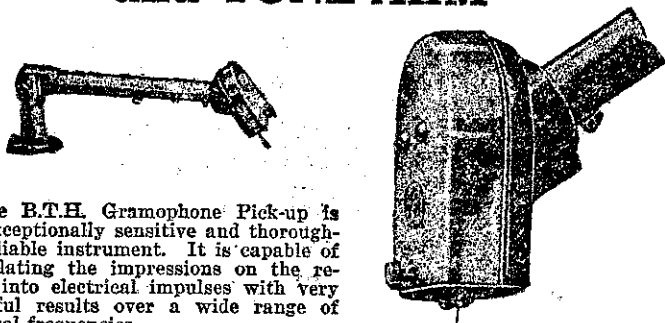
A MEETING of the 1YA Musical and Dramatic Committee was held at the Auckland studios of the Radio Broadcasting Company on Friday, May 10, 1929, at 8 p.m. Present: Mr. Karl Atkinson (in the chair), Auckland Gramophone Society; Mrs. A. Carr-Tibbitts, New Zealand League of Penwomen; Mr. V. Trask, Athenian Club; Mr. J. F. Montague, Auckland Comedy Players; Mr. F. McCallum, Little Theatre Society; Mr. J. Tait, Society of Musicians; Mr. P. Stewart, Royal Auckland Choir; Mr. L. C. Barnes, station director at 1YA; Mr. D. Wrathall, programme organiser at 1YA.

With regard to the proposed 1YA Choir, it was reported by the conductor that steps were being taken to form the choir and that rehearsals would begin in the near future on Monday evenings. It was also reported that at least nine concerts throughout the year would be given from the studio by the choir.

It was stated that the station officials were endeavouring to make arrangements for a night of New Zealand works—both musical and dramatic—to be put on at 1YA.

The matter of the frequent appearance of certain artists was brought forward and the committee was advised that this would be obviated by new artists and more novelty programmes.

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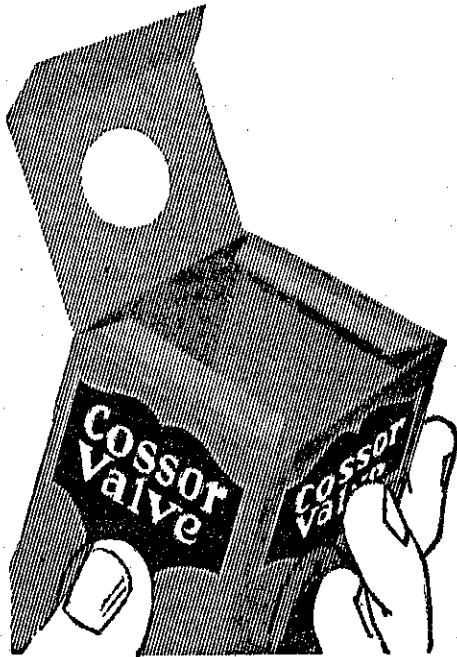
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Next Week's Features

1YA Features

THE church service held in the Baptist Tabernacle will be relayed on Sunday evening. The Rev. Joseph Kemp will be the preacher, and Mr. Arthur Wilson the organist.

On Sunday evening there will be a further relay from Wellington of the concert to be given by the Port Nicholson Silver Band in the Grand Opera House.

TWO artists new to 1YA will be heard on Tuesday evening—Miss Freda Gaudin (soprano), and Mr. Arthur Allen (baritone). One of Miss Gaudin's numbers will be "They Call Me Mimi" (from "La Boheme"), and Mr. Allen will sing the operatic solo, "Where'er You Walk." Elocutionary numbers will be given by Mr. T. Harris. These will include "Hamlet's Soliloquy." The instrumental music will be a feature of the evening. This will include a violin solo by Miss Ina Bosworth and trio selections from Gluck's operas, and from the opera, "Lakme."

Another of Mr. Karl Atkinson's popular gramophone lecture recitals will be given on Tuesday evening. There will be seven specially chosen records.

THE Auckland Artillery Band, under the conductorship of Mr. Wynne Smith, will present a programme on Wednesday evening. The items will comprise two marches, a fantasia, "Martial Moments," a selection, "Lortzing," a cornet duet, and a cornet solo with band accompaniment, a descriptive selection, "A Trip to Blackpool."

THE New Zealand Four will provide the bulk of the vocal numbers on Friday evening. The quartets will be "Song of Hope" and "Dance in the Moonlight." There will be two duets. Solos will be sung by Messrs. James Simpson, Eric Mannell, and Duncan Black. Mr. Cyril Towsey will play

2YA Notes

ON Monday evening Mr. A. J. Nicholls will give a further lecturette on "Gardening." The artists for the concert session will be Mrs. W. Fraser Morrish (soprano), Miss Hilda Chudley (contralto), Mr. John Prouse (baritone), and Mr. J. Fordie (tenor).

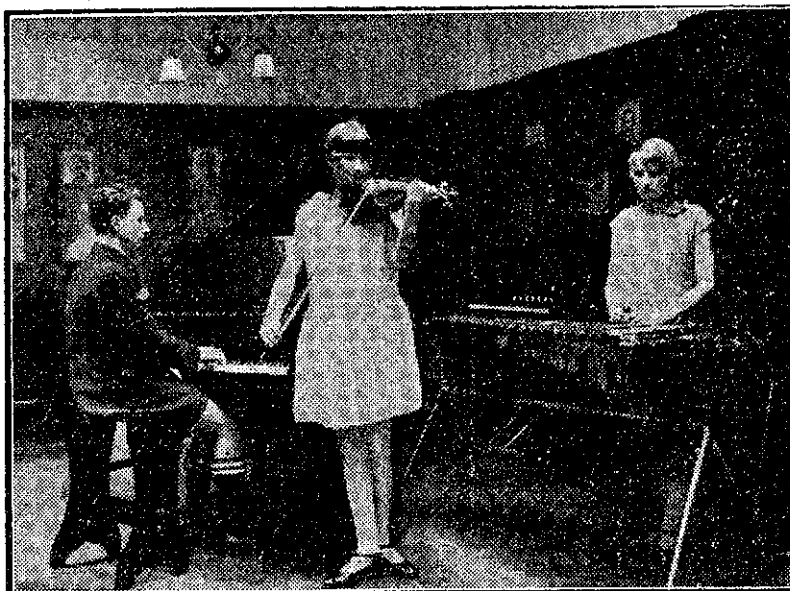
MR. A. STANLEY WARWICK will make a reappearance before the microphone after an absence of some months, his items being "Orange Blossoms," a dramatic sketch of the East, and a character sketch from Dickens's "Dan'l Peggotty." Mrs. Fraser Morrish, the soprano soloist, has chosen for her items Sullivan's "Orpheus With His Lute" and "The Little Dustman," by Brahms. Landon Ronald's well-known song, "Remembrance," together with a Negro Spiritua. by Burleigh, "Crown Moses," and "For Ever and a Day," a charming little ballad by Mack, will be Miss Hilda Chudley's contributions to the programme. Two of Schumann's finest songs, "Ich Grolle Nicht" and "The Two Grenadiers," will be sung by Mr. John Prouse in the first half of the programme, this artist's other numbers being a bracket of two Florence Needham compositions, "The Brow of Neffn" and "The Queen of Connemara." Mr. J. Fordie's items will be "The Flower Song" from "Carmen" and a bracket of two Scottish folk songs, "Mary" and "My Love is Like a Red, Red Rose." Orchestral items in keeping with the programme will also be rendered.

ON Tuesday evening the representative of the Agricultural Department will give a talk on matters of interest to "The Man on the Land." At 8 o'clock a light and varied programme will be presented, the contributing artists being Mr. G. Austin Blackie (tenor), Miss Phyllis Martin (soprano), Mr. David Barrie (humour) and Mr. Henry Desmond (popular songs). At 9.30 the usual dance programme will be given.

THE Band of the First Battalion Wellington Regiment, under the conductorship of Lieutenant B. J. Shardlow, will, on Thursday evening, provide a studio concert. The band will have the assistance of The Mellow Fel-

Promising Young Trio from Wanganui

The Bridges Trio, who will play at 2YA on Saturday, June 1, and at the Band Concert in the Grand Opera House on Sunday evening, June 2, are three talented young people from Wanganui, playing violin, xylophone and piano. Captain George Buckley, conductor of the Queen Alexandra's Band, Wanganui, has been greatly interested in the trio, and they have appeared at numerous concerts given by the band. In this way they are well known not only in Wanganui, but throughout Taranaki. The Trio recently visited



Australia and broadcast five times from Sydney and once from Melbourne. The trio was formed in July, 1926, at which date Clifford, the pianist, had had a few years' tuition, and Nancy, the violiniste, not more than 18 months'. Frances had not even seen a xylophone. Under the capable guidance of Mr. and Mrs. H. J. Trussell, of Wanganui (and now in London at the Royal College of Music), the young musicians have made wonderful progress. When in Sydney, several tempting offers were made to them to accept engagements, but these were rejected by their mother, who wishes her children to complete their education.

The trio will present two very interesting programmes.

The vocalists for the evening will be the Lyric Four. Elocutionary items will be given by Miss Gladys Gammart, and humour will be dispensed by Mr. Alan McElwain.

THE popular bass-baritone, Mr. Frank Sutherland, assisted by Miss Millicent O'Grady (soprano), a novelty trio known as the Nifty Three, Mr. T. Garland (humour), and the Studio Trio will provide the programme on Thursday evening.

On Friday evening at 7.40, Mr. Frank Sutherland, who is a Rugby football referee, will give a talk on that popular sport.

planoforte solos, and there will be selections by the Studio Trio. During the evening there will be two short organ recitals given by Mr. A. E. Wilson, with whom will be associated Miss D. Logan.

THE Melody Makers will supply two sessions of fifteen minutes each on Saturday evening. Their novelty items will add much to the enjoyment of the week-end radio vaudeville. Also contributing will be Miss Robina Chellburg (contralto), a humorous couple called the Radio Pals, and the Studio Orchestra.

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lows quartet, Miss Blanche Densem (soprano) and Miss Sinclair Breen (elocutionist). Outstanding amongst the band items will be a selection of Sir Henry Bishop's songs, a tenor solo, "Iona," by Bandsman Love, and two cornet solos, Mendelssohn's "Spring Song" and "The Lost Chord." The first number will be played by Sergeant Barke and the latter number by Lieutenant B. J. Shardlow. A selection from the popular "Maritana," together with several marches and waltzes, will also be played.

ON Friday evening a programme of grand opera and comic opera and musical comedy excerpts will be given. The vocalists for the evening will be Miss Gretta Stark (soprano), Mr. S. E. Rodger (baritone), Miss Edith Buckmaster (contralto), and Mr. Oliver Foote (tenor). Mr. Peter Dorrian will give two recitals, "The Three Kings," by Longfellow, and "The Curate Explains," the former a dramatic number and the latter a humorous number. Miss Pauline Rogers, late of Sydney, will play two piano solos, namely, the "First Movement of the Moonlight Sonata," by Beethoven, and a "Romance" by Sibelius.

THE Melodie Four, Mr. Jack Wilkinson (humour) and The Bridges Trio, together with the orchestra, will provide an interesting and varied programme on Saturday evening. The quartet numbers will be the "Old Folks Medley," "Down at the Huskin' Bee" and "Cos I'd Nothing Else to Do." Mr. W. W. Marshall (bass) will sing the well-known Scottish folk song, "Wi a Hundred Pipers an' a" and Mr. Sam Duncan (tenor) Toselli's "Serenade." Mr. R. S. Allwright (baritone) will be heard in Alfred Hill's well-known song, "Hine e Hine," and Mr. Frank Bryant will sing "A Song of the Hills," by Lee. The Bridges Trio are a talented combination from Wanganui and have just recently completed a tour of some of the more important towns of Australia, having also broadcast with marked success from the major "A" class Australian stations. The composition of the trio is one suitable for broadcasting from a novelty point of view, consisting of piano, violin and xylophone, and no doubt this combination's items will be regarded with more than passing interest by a large number of listeners. Mr. Jack Wilkinson will sing two comic songs, "And Here's Another Thing" and "It's the Girls That Make the Seaside."

ON Sunday evening the evening service of St. Andrew's Presbyterian Church will be relayed, the preacher on this occasion being the Rev. R. Howie and the organist and choir-master Mr. Frank Thomas. At 8.15 p.m. approx. a relay of the Wellington Municipal Tramways Band recital from His Majesty's Theatre will be carried out. The conductor on this occasion will be Captain Herd.

3YA Features

ON Sunday evening the religious service conducted in the Durham Street Methodist Church by the Rev. W. T. Blight will be broadcast by 3YA. The organist will be Mr. Ernest Firth, F.R.C.O. The after-church en-

tertainment will consist of a brief gramophone recital from the studio and the rebroadcast of the concert to be given by the Wellington Tramways Band under Captain T. Herd in His Majesty's Theatre.

THE Woolston Band, under Mr. R. J. Estall, will present one of their attractive programmes on Monday evening. Included among the items will be two marches, "Red Gauntlet" and "Thin Red Line," the overture "La Clemenza di Tito" (Mozart), a selection from Handel's "Acis and Galatea" and a waltz, "Mexican Serenade." There will be band accompaniment to a cornet solo played by Bandsman Ohlson, and to a trombone solo, "Switchback." Further instrumental numbers on the evening's programme will be given by the Studio Trio.

The 3YA vocalists who will contribute to the programme will be Miss Linda Mills (soprano), Mrs. Maud Wood (mezzo-soprano), Mr. J. Francis Jones (baritone), while elocutionary numbers will be given by Mr. W. H. Moses.

"OH, Oh, Delphine," will be the next of the very popular musical plays to be presented at 3YA by the Radiolians, and it is certain to be as much appreciated as have been other light musical comedies put on the air by this popular vocal combination. Instrumental numbers on the programme for Wednesday evening will be the complete "Nutmacker Suite," to be presented by medium of records, and further music will be provided by the members of the Bohemian Quintet. A very interesting trio will be played by Miss Florence Millar, Mr. D. Mercer, and Miss Dorothy Davies (violin, viola and piano respectively). There will be two recitations by Miss Ruby Boot.

A PLEASING feature of Thursday evening's programme will be the part songs and madrigals which are to be contributed by Mrs. J. E. Russell's Ladies' Glee Party. The madrigals, which will be sung by the party without instrumental accompaniment, will be "Come Away, Sweet Love" and "How Beautiful is Light."

IN association with the Glee Singers in two part songs, Mrs. E. W. Pigeon and Mrs. H. L. Bowker will sing solos. Mrs. Russell will act as accompaniste for the party, and will also play two pianoforte soli. The instrumental music of the evening will be provided by Mr. Harold Beck (cellist), the Studio Trio, and by a few special records.

TWO of 3YA's finest soloists, in Mr. Harold Prescott and Mr. F. C. Penfold, will be singing on Thursday evening. Mr. Prescott's numbers will be "Lord Randall," "On Away, Awake, Beloved," and "Because." Mr. Penfold's baritone voice will be heard in "The Song of the Volga Boatman" and "The Devout Lover."

THE Bailey-Marston Dance Orchestra will supply the dance music programme on Friday evening. The early portion of the evening's programme will be contributed by Miss Mabel Eaglesome (soprano), Miss Betty Hilliard (singer of popular songs), and Mr. George Titchener (humorist). The selected records for the evening will include solos by Alfred O'Shea, Chas. Hackett, Gladys Moncrieff, Sople Braslau, Robert Wat-

son, Fred Williamson, and Hardy Williamson.

On Saturday evening 3YA will rebroadcast 2YA.

4YA Notes

CANON NEVILL will be the preacher at St. Paul's Cathedral on Sunday evening, when the service is to be relayed by 4YA. After the church broadcast the concert which is to be given by the St. Kilda Band will be relayed.

MANY fine operatic numbers will be presented on Monday evening. Mr. L. E. Dalley will sing "La Donna e Mobile" ("Rigoletto") and a solo from "La Tosca" will be sung by Miss Mae Matheson. There will be gems from "Princess Ida" and "Ruddigore" and a sextet from "Lucia di Lammermoor." Besides the two artists mentioned, other vocalists will be Miss Roma Buss, Mr. H. A. Johnston, Mr. Fred Kershaw and Mr. Fred Tuohy. There will be instrumental numbers by the Studio Trio.

THE St. Kilda Band under Mr. James Dixon assisted by 4YA artists, will provide Tuesday evening's concert programme. The band's items will be of the usual popular nature, including two marches, a waltz, the overture, "Egmont," an intermezzo "The Crown of Love" and a selection, "Memories of the Opera." There will be a cornet solo with band accompaniment, "Danny Boy." Two artists new to 4YA will be appearing this evening—Mrs. Herbert Burrow (soprano) and Mr. A. C. Parkin (baritone). There will be two recitations by Mr. Lester Moller.

ON Wednesday evening the vocalists for the popular programme, which will be followed by a dance session, will be the Serenaders. As concerted numbers they will sing, "Break, Break, Break" and "Barbara Allen." Solos will be sung by Miss Florence Sumner, Miss Dorothy Allan, Mr. W. Harrison and Mr. R. B. Macdonald. There will be elocutionary numbers by Miss Sheila Neilson.

TWO sketches by Miss Jolly and Mr. Bain will form part of Friday evening's programme. These will be "To the Spring" and "Which?" The

vocalists contributing to the musical side of the entertainment will be Miss Irene Heywood, Miss Irene Horniblow and Mr. A. Lungley. There will be items by the Studio Trio, by Mrs. Ernest Drake and the Ritz Orchestra under Mr. A. Pettit.

ON Saturday evening 4YA will relay 3YA, Christchurch, which on this occasion will be re-broadcasting 2YA.

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AN interesting and even epoch-making performance was recently undertaken by the "Morning Post." This was the taking of a photograph of the running of the Grand National, and transmission of that photograph by the Fultograph Wireless Picture System to the "Morning Post's" special receiving station in London. To ensure the success of the experiment, a special dark room was built beside the course, and in this the development of the first negative was begun before the race was over. The films were then immediately placed on the transmitter and transmission made to London. Prints were then made from the films received, and from these block-making began. The special feature of the performance lies in the fact that the Fultograph System is portable, and this was the first time that a portable photograph transmitting set was used for transmitting purposes.

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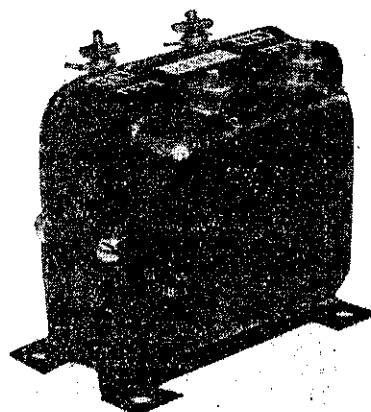
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Full Programmes for Next

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Sunday, May 26

1YA, AUCKLAND (333 METRES)—SUNDAY, MAY 26.

- 3.0 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Further studio items.
 4.30: Close down.
 6.0: Children's service, conducted by Uncle Len.
 6.55: Relay of Evening Service from Baptist Tabernacle.
 Preacher: Rev. Joseph Kemp.
 Organist: Mr. Arthur Wilson.
 Studio items.
 8.30: Rebroadcast of 2YA Wellington (relay from Grand Opera House of concert by Port Nicholson Silver Band, under conductorship of Mr. J. J. Drew).
 Close down.

2YA WELLINGTON (420 METRES)—SUNDAY, MAY 26.

- 3 p.m.: Afternoon session.
 4.30: Close down.
 6.55: Relay of Evening Service of St. Gerard's Redemptorist Church (Choir-master, Mr. F. J. Onkes; organist, Mr. H. Mount).
 Organ solo—"Abide With Me" (Liddle).
 Rosary with Choral Responses.
 Antiphon—"Salve Regina" (Witzska).
 Sermon—Rev. Father T. Robinson, C.S.S.R.
 Motets—"Pie Jesu" (Niedermeyer); "Mother Mary, Queen Most Sweet" (Anon).
 Organ solo.
 Motets—"O Salutaris Hostia" (Waters); "Jesu Dei Vivi" (arrgd. Oakes); "Tantum Ergo" (Murray); Recital of Divine Praises; "Adoremus" (Anon).
 Organ solo—Finale "Allegro Maestoso" (Batiste).
 8.15 (approx.) Relay from Grand Opera House of recital of Port Nicholson Silver Band under the conductorship of Mr. J. J. Drew.

3YA, CHRISTCHURCH (306 METRES)—SUNDAY, MAY 26.

- 3.0 p.m.: Afternoon session (gramophone recital).
 4.30: Close down.
 5.30: Children's Song Service.
 6.15: Hymn tunes.
 6.30: Relay of evening service from St. Andrew's Presbyterian Church.
 Preacher: Rev. G. H. Gibb.
 Choirmaster: Mr. J. McLean.
 Organist: Mr. Robt. Lake.
 7.45: (approx.) Overture—H.M. Coldstream Guards, "1812" (Tschalkowsky) (H.M.V. Record C1369).
 7.53: Soprano solo—Madame Gower-Burns, "Hear Ye Israel" (from "Elijah") (Mendelssohn).
 7.59: Grand Organ Solo—Spencer Shaw, "Simple Aven" (Thome) (Zonophone Record 5162).
 8.3: Baritone solo—Mr. James Filer, "The Wanderer" (Schubert).
 8.8: Instrumental—Virtuoso String Quartet, (a) "Mignon" Gavotte (Thomas); (b) "Orientale" (Glazounov) (H.M.V. Record B2784).
 8.14: Contralto solo—Miss Dorothy Spiller, "Life" (Curran).
 8.18: Violin solos—Erica Morini, (a) "Rondo on a Theme by Beethoven" (Kreisler); (b) "Spanish Dance" (De Falla, arrgd. Kreisler), (H.M.V. Record EC5).
 8.24: Tenor solo—Mr. Ernest Rogers, "Where'er You Walk" ("Semele") (Handel).
 8.29: Tenor and baritone duet—Grand Opera Duo, "The Moon Hath Raised Her Lamp Above" (Benedict).
 8.35: Instrumental Trio—Christchurch Broadcasting Trio, "Allegro Energico Con Fuoco C Minor Trio" (Mendelssohn).
 8.47: Soprano solo—Madame Gower-Burns, "The Star" (Rogers).
 9.51: Cello solo—Pablo Casals, "O Star of Eve" (Wagner) (H.M.V. Record DB1012).
 8.55: Baritone solo—Mr. James Filer, "A Pleading" (Tschalkowsky).
 8.59: Choral—Choir of H.M. Chapels Royal, "Jesu, Joy of Man's Desiring" (Bach, arrgd. Hess) (H.M.V. Record B445).
 Orchestral—Philadelphia Symphony Orchestra, "Prelude in E Flat Minor" (Bach) (H.M.V. Record D1464).
 9.7: Lecture—Dr. C. A. Jarman, Mus. Doc., "Musical Impressions."
 9.22: Contralto solo—Miss Dorothy Spiller, "O Western Wind" (Brahe).
 9.26: Band—H.M. Coldstream Guards, "Poet and Peasant" (Suppe) (H.M.V. Record C1315).

- 9.34: Tenor solo—Mr. Ernest Rogers, "An Evening Song" (Blumenthal).
 9.38: Mixed quartet—Grand Opera Quartet, "They Say the Lion and the Lizard Keep" (from "A Persian Garden") (Lehmann).
 9.45: Close down.

4YA, DUNEDIN (463 METRES)—SUNDAY, MAY 26.

- 3.0: Town Hall chimes.
 3.1: Selected studio items.
 4.30: Close down.
 5.30: Children's Song Service, conducted by Big Brother Bill.
 6.30: Relay of evening service from St. Paul's Cathedral.
 Preacher: Canon Nevill.
 Organist: Mr. E. Heywood, F.R.C.O.
 8.5: Relay of St. Kilda Band Concert, under the conductorship of Mr. James Dixon.
 9.15: Close down.

Monday, May 27

1YA, AUCKLAND (333 METRES)—MONDAY, MAY 27.

SILENT DAY.

2YA, WELLINGTON (420 METRES)—MONDAY, MAY 27.

- 3 p.m.: Chimes of the G.P.O. Clock.
 3.1: Selected gramophone items.
 3.40: Relay from Messrs. Kirkcaldie and Stains' Tea Rooms—Music by the Trio.
 4.0: Selected studio items.
 4.30 and 4.55: Sports results to hand.
 5.0: Children's session, conducted by Uncle Jeff.
 6.0: Dinner session.
 Overture—Berlin State Opera Orchestra, "The Magic Flute" (Mozart) (H.M.V. Record B464).
 Grand organ solo—Spencer Shaw, "Simple Aven" (Thome) (Zonophone Record 5162).
 6.12: Tacet.
 6.15: Violin solos—Jascha Heifetz, (a) "Valse Bluetie" (Drigo, arrgd. Auer); (b) "Estrellita" (Ponce, arrgd. Heifetz) (H.M.V. Record DA984).
 Orchestral—J. H. Squire's Celeste Octet, (a) "Serenade" (Titl); (b) "Angel's Serenade" (Braga) (Columbia Record 9116).
 6.28: Tacet.
 6.30: Orchestral—New Light Symphony Orchestra, "Peer Gynt Suite No. 2" (Grieg); (a) "Ingrid's Lament"; (b) "Arabian Dance"; (c) "The Return of Peer Gynt" (H.M.V. Records C1571/2).
 6.43: Tacet.
 6.45: Orchestral—New Light Symphony Orchestra, "Peer Gynt Suite No. 2" (Grieg), "Solveig's Song" (H.M.V. Record C1572).
 Orchestral—Marek Weber's Orchestra, "Vienna by Night" (Komzak) (H.M.V. Record C1507).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. A. J. Nicholls (Representative Hutt Valley Horticultural Society), "Gardening."
 8.0: Relay from Masterton of the opening ceremony of the Wairarapa Industrial Exhibition.
 10.0: Close down.

3YA, CHRISTCHURCH (306 METRES)—MONDAY, MAY 27.

- 3.0 p.m.: Afternoon session—Gramophone items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session conducted by "Scatterjoy."
 7.0: News session.
 7.30: Talk—Mr. E. J. Bell, Book Review.
 8.0: Chimes.
 Studio programme by the Woolston Band, under the conductorship of Mr. R. J. Estall, and assisting artists.
 8.1: March—Band, "Red Gauntlet" (Rimmer).
 Overture—Band, "La Clementza Di Tito" (Mozart).
 8.15: Scottish song—Mrs. Maud Wood, "The Auld Scotch Songs" (Leeson).
 8.19: Recitation—Mr. W. H. Moses, "The Chase of the Ages" (Dennis).
 8.23: Instrumental Trios—Christchurch Broadcasting Trio: (a) "Gavotte" (Bridge); (b) "Chanson Triste" (Tschalkowski); (c) "Scherzo" (Reissiger).
 8.33: Soprano solo—Miss Linda Mills, "Moonlight Elves" (Di Temple).

Week-all Stations-to June 2

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- 8.38: Cornet solo to Band Accompaniment—Bandsman R. Ohlson, "Hailstorm" (Polka) (Rimmer).
 8.44: Baritone solo—Mr. J. Francis Jones, "The Yeoman's Wedding Song" (Poniatowski).
 8.48: Selection—Band, "Acis and Galatea" (Handel).
 9.0: Weather report.
 9.5: Mezzo-soprano solos—Mrs. Maud Wood, (a) "Fleurette" (McGeoch); (b) "Keep on Hopin'" (Maxwell).
 9.13: Recital—Mr. W. H. Moses, "The Highwayman" (Noyes).
 9.18: Instrumental Trios—Christchurch Broadcasting Trio, "Andantino and Allegro Scherzando" (from "Novellette") (Gade).
 9.28: Soprano solos—Miss Linda Mills, (a) "Life's Garden" (Ellis); (b) "Ye Banks and Braes" (Scottish).
 9.36: Trombone solo to band accompaniment, "Switchback" (Sutton).
 9.41: Baritone solo—Mr. J. Francis Jones, "Peg Away" (Bevan).
 9.45: Vocal duet—Hardy Williamson and Robert Rowe, "The Flowers That Bloom in the Spring" (Sullivan) (Parlophone Record A2544).
 Baritone solo—Robt. Rowe, "Rising Early in the Morning" (Sullivan) (Parlophone Record A2544).
 9.51: Waltz—Band, "Mexican Serenade" (Terese).
 March—Band, "Thin Red Line" (Alford).
 10.0: Close down.

4YA, DUNEDIN (463 METRES)—MONDAY, MAY 27.

- 3.0 p.m.: Town Hall chimes.
 3.1: Selected Gramophone items.
 4.25: Sporting results.
 4.30: Close down.
 6.0: Town Hall chimes.
 6.1: Children's Hour conducted by Uncle Allan.
 7.0: News session.
 7.30: Lecturette by Dr. Fisher, Dominion President, under the auspices of the League of Nations, "The International Problem of Coal."
 8.0: Town Hall chimes.
 8.1: Overture—New Light Symphony Orchestra, (a) "Scene De Ballet Marionettes" (Glazounov); (b) "Persiflage" (Francis) (H.M.V. Record B2754).
 8.7: Tenor solo—Mr. L. E. Dalley, "La Donna E Mobile" ("Rigoletto") (Verdi).
 8.11: Trio—Broadcasting Trio, "Raymond" (overture) (Thomas).
 8.18: Soprano solo—Miss Roma Buss, "Hark Hark the Lark" (Schubert).
 8.25: Cello solo—Mr. P. J. Palmer, "Chanson Orientale" (Glinka).
 8.30: Contralto solo—Miss Mae Matheson, "Visi D'Arti" (Puccini) ("La Tosca").
 8.34: Recital—Miss Anita Winkel, Selected.
 8.44: Bass solo—Mr. Fred Kershaw "Ombre Mai Fu" (Handel).
 8.51: Pianoforte solo—Mrs. E. Drake, "Danse Negre" (Scott).
 8.57: Concerted—Zonophone Light Opera Company, "Vocal Gems from "Princess Ida"" (Sullivan) (Zonophone Record A342).
 9.1: Weather report.
 9.3: Trio—Broadcasting Trio, "Anitra's Dance" (Greig).
 9.8: One-Act play—Miss Winkel, Major Lampen and Angus Lorry, "The Maker of Dreams" (Downs).
 9.38: Tenor solo—Mr. H. A. Johnston, "On Wings of Song" (Mendelssohn).
 9.42: Sextette—Vocal, "Lucia De Lammermoor" (Donizetti).
 9.48: Violin solo—Miss Eva Judd, "Liebeslied" (Wagner).
 9.52: Baritone solo—Mr. Fred Tuohy, "I Will Not Grieve" (Schubert).
 9.56: Contralto solo—Miss Mae Matheson, "A Legend" (Tschalkowsky).
 9.59: Concerted—Zonophone Light Opera Company, "Vocal Gems from "Rudigore"" (Sullivan) (Zonophone Record A342).
 10.3: Close down.

Tuesday, May 28

1YA, AUCKLAND (333 METRES)—TUESDAY, MAY 28.

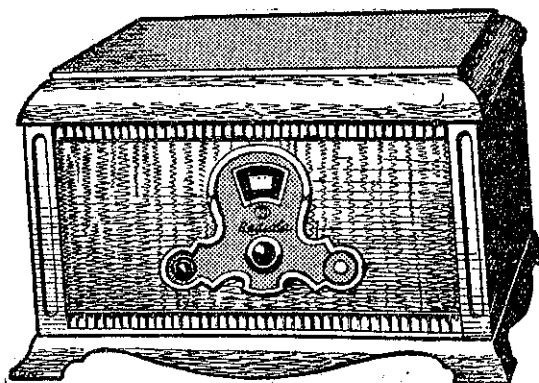
- 2 p.m.: Afternoon session—relay of opening of Waikato Winter Show, Hamilton.
 5.0: Close down.
 6.0: Children's session conducted by Uncle George.
 7.0: News and information session.
 7.40: Lecturette—Mr. George Campbell, "Motoring."
 8.0: Chimes.
 8.1: Relay of overture from Majestic Theatre Orchestra under the baton of Mr. J. Whiteford Waugh.
 8.11: Baritone solo—Mr. Arthur Allen, "Where'er You Walk" ("Semele"—Handel).

- 8.15: Instrumental trio—Studio Trio, "Ballet Suite from Operas of Gluck" (Gluck).
 8.25: Soprano solos—Miss Freda Gaudin, (a) "The Greatest Wish in the World" (Del Riego), (b) "I Heard You Pass By" (Wood).
 8.32: Recital—Mr. Tom Harris, "Three Short Poems."
 8.39 (approx.): Relay from Majestic Theatre.
 8.49: Vocal duet—Arangi Lombardi and Carlo Galeffi, "Il Trovatore" (Duet, Act 4) (Verdi) (Columbia Record 04224).
 8.55: Violin solo—Miss Ina Bosworth, "La Gitana" (Kreisler).
 9.0: Baritone solos—Mr. Arthur Allen, (a) "A Young Lady Who Sailed from Ostende" (Manning), (b) "A Banjo Song" (Homer).
 9.6: Evening forecast and announcements.
 9.9: Instrumental trio—Studio Trio, "Selections from Opera 'Lakme'" (Delibes).
 9.19: Recital—Mr. T. Harris, "Hamlet's Soliloquy" (Shakespeare).
 9.26: Soprano—Miss Freda Gaudin, (a) "Someone Singing in My Garden" (Forster), (b) "They Call Me Mimi" ("La Boheme"—Puccini).
 9.33: Gramophone lecture-recital—Mr. Karl Atkinson, "The Lure of the Gramophone":
 1. Orchestral—Berlin State Opera House Orchestra, "The Magic Flute" (Overture, Part 2) (Mozart) (Parlophone Record A5011).
 2. Contralto solo—Karin Branzell, "Death and the Maiden" (Schubert) (Parlophone Record A4069).
 3. Choral—Obercantor Herman Fleischmann Synagogue Choir and Orchestra, "Jigdal" (Lewandowsky) (Parlophone Record A5013).
 4. Orchestral—New Light Symphony Orchestra, "Prelude in G Minor" (Rachmaninoff) (Zonophone Record EF24).
 5. Bass solo and chorus—Ivar Andresen, "Hail, King Henry" ("Lohengrin"—Wagner) (Parlophone Record A5012).
 6. Tenor solo—Richard Tauber, "The Wanderer" (Schubert) (Parlophone Record AR1015).
 7. Scene—Principals, Chorus, and Orchestra, Berlin State Opera House, "Hail, Egypt, Isis, Hail" ("Aida"), Finale Act. 2 (Verdi) (Parlophone Record A5015).
 10.0: Close down.

2YA, WELLINGTON (420 METRES)—TUESDAY, MAY 28.

- 3.0 p.m.: Chimes of the G.P.O. clock.
 3.1: Studio concert of selected gramophone and player numbers arranged by Messrs. F. J. Pinny Limited. All Player rolls will be played on the Meltona Recording Player Piano.
 4.30 and 4.55: Sports results to hand.
 5.0: Children's session conducted by Uncle Jim.
 6.0: Dinner session:

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- Overture—National Symphony Orchestra, "Light Cavalry" (Suppe) (Zonophone Record EE102).
Cello solo—Pablo Casals, "Moment Musical" (Schubert) (H.M.V. Record DA776).
- 6.12: Tacet.
- 6.15: Hawaiian—Hilo Hawaiian Orchestra, (a) "Kawaihan Waltz" (Keala-kai); (b) "My Hula Love" (H.M.V. Record B2790).
Medley waltz—The Troubadours, "Popular Songs of Yesterday" (H.M.V. Record EB33).
- 6.26: Tacet.
- 6.30: Male voices—Salon Group, (a) "Jeannie, I Dream of Lilac Time" (Shilkret); (b) "Sonny Boy" (Jolson), (H.M.V. Record EB35).
Tenor solos—Franklyn Baur, (a) "Marie" (Berlin); (b) "Cross Roads" (Klages) (Zonophone EE135).
- 6.43: Tacet.
- 6.45: Violin and guitar—Giulietta Morino, (a) "Harlequin's Serenade" (Drigo); (b) "Could I" (Poggis) (Zonophone Record EE134).
Waltz—International Concert Orchestra, "The Merry Widow" (Lehar) (Zonophone Record EF9).
- 6.56: Tacet.
- 7.0: News session, market reports and sports results.
- 7.40: Lecturette—Representative of the Agricultural Department, "For the Man on the Land."
- 8.0: Chimes.
- 8.1: Overture—Orchestra, "Comrades in Arms" (Gruenwald).
- 8.9: Soprano solo—Miss Phyllis Martin, "Love Me Now" (from "Madame Pompadour") (Fall).
- 8.13: Trombone solo with orchestral accompaniment—Mr. Harold Oakes, "I Know a Lovely Garden" (D'Hardelot).
- 8.18: Tenor solo—Mr. G. Austin Blackie, "Oft In The Still Night" (Trdtl.).
- 8.22: Instrumental—Orchestra, (a) "Humoresque" (Dvorak); (b) "Tales From The Vienna Woods" (Waltz) (Strauss).
- 8.30: Humour—Mr. David Barrie, "Schoolboy Howlers" (Leacock).
- 8.37: Popular song—Mr. Henry Desmond, "The Girl Is You And The Boy Is Me" (Henderson).
- 8.41: Hawaiian—Queenie and David Kail, (a) "Ukulele Lullaby" (Williams); (b) "Ukulele Dream Girl" (Low) (Parlophone Record A2364).
- 8.47: Soprano solo—Miss Phyllis Martin, "Cherry Ripe" (Scott).
- 8.51: Instrumental—Orchestra, repeat number.
- 8.59: Weather report.
- 9.1: Tenor solo—Mr. G. Austin Blackie, "One Little Hour" (Sharp).
- 9.5: Novelties—Orchestra, (a) "In a Chinese Temple Garden" (Ketelbey); (b) "Il Trovatore" (Arrgd. Black).
- 9.10: Humour—Mr. David Barrie, "Winter Pastimes" (Leacock).
- 9.17: Popular song—Mr. Henry Desmond, (a) "I'm Sorry Sally" (Florito), (b) "And If You Don't Love Me."
- 9.24: Musical Comedy Selection—Orchestra, "Katja" (Gilbert).
- 9.30: Dance programmes of His Master's Voice Records:
Waltz—International Concert Orchestra, "Blue Danube" (Strauss) (Zonophone Record EF21).
Comedian—Clarkson Rose, "Hippopotamus" (Carlton) (Zonophone 5145).
Foxtrot with vocal chorus—Shilkret's Orchestra, "Flower of Love" (Dreyer) (H.M.V. Record EA431).
Foxtrot with vocal refrain—Shilkret's Orchestra, "Dancing Shadows" (Golden) (H.M.V. Record EA367).
Waltz—Paul Whiteman's Orchestra, "Cheerie-Beerie-Bee" (Wayne) (H.M.V. Record EA396).
- 9.46: Tenor solo—Franklyn Baur, "Just Across the Street From Heaven" (Hewman) (Zonophone Record EE107).
Saxophone solo—Rudy Wiedoeft, "Rubenola" (Wiedoeft) (Zonophone Record EE119).
Tango Argentino—International Novelty Orchestra, "Y Como Le Va?" (Valverde) (H.M.V. Record EA364).
Wurlitzer Organ Solo—Jesse Crawford, "The Dance of the Blue Danube" (Fisher) (H.M.V. Record EA404).
- 9.58: Vocal duet—Maurice and Sidney, "Toy-Town Artillery" (Lynton) (Zonophone Record 5161).
Dance Orchestra—Shilkret's Rhythm Melodists, "Dolly Dimples" (Alter) (H.M.V. Record EA336).
- 10.4: Baritone solo—Jno. Brownlee, "Sirs! Your Toast" (Bizet) (H.M.V. Record D1396).
Wurlitzer Organ Solo—Jesse Crawford, "I Can't Do Without You" (Berlin) (H.M.V. Record EA404).
Waltz—Wurlitzer Organ Solo, Chas. W. Saxby, "Janette" (Nicholls) (Zonophone Record 5094).
Yale Blues—Rio Grand Tango Band, "A Blue Serenade" (Lytell) (H.M.V. Record B5355).
- 10.18: Tenor with cinema organ—Gerald Griffin, "My Irish Song of Songs" (Sullivan) (Zonophone Record 2989).
Wurlitzer Organ Solo—Jesse Crawford, "King For A Day" (Lewis) (H.M.V. Record EA425).
Foxtrot with vocal refrain—Nat Shilkret and Victor Orchestra, "Hallelujah" (Robin) (H.M.V. Record EA253).
Foxtrot with vocal refrain—Waring's Pennsylvanians, "What Do You Say?" (Yellen) (H.M.V. Record EA340).
- 10.31: Male Quartet—De Reszke Singers, "My Lady Chlo-E" (Leighton) (H.M.V. Record EA432).
Foxtrot—Nat Shilkret's Orchestra, "Rio Rita" (McCarthy) (H.M.V. Record EA315).
Foxtrot—Zes Confrey, "Polly" (Zamecnik) (H.M.V. Record EA267).

- Foxtrot—Nat Shilkret's Orchestra, "The Kinkajou" (McCarthy) (H.M.V. Record EA315).
- 10.44: Male Quartet—Re Deszke Singers, "Absent" (Metcalf) (H.M.V. Record EA432).
- Vocal Duet—Dalhart and Robison, "Oh, Suzanna" (Foster) (H.M.V. Record EA309).
- Hawaiian—Ferera and Paaluh, "Hawaiian Waltz Medley" (Trdtl.) (H.M.V. Record B2369).
- Barn Dance—Bert Firman's Dance Orchestra, "My Lady Dainty" (Hesse) (Zonophone Record 5118).
- Waltz—Troubadours, "La Golondrina" (The Swallow) (H.M.V. Record EA349).
- Schottische—International Novelty Quartet, "Lena" (Mewes) (Zonophone Record EE67).
- 11.0: Close down.

3YA, CHRISTCHURCH (306 METRES)—TUESDAY, MAY 28.

SILENT DAY.

4YA, DUNEDIN (463 METRES)—TUESDAY, MAY 28.

- 3.0: Town Hall chimes.
- 3.1: Relay of instrumental music from the Ritz.
- 4.25: Sporting results to hand.
- 4.30: Close down.
- 6.0: Town Hall chimes.
- 6.1: Children's session conducted by Big Brother Bill.
- 7.0: News session.
- 7.30: Lecturette under the auspices of the Workers' Education Association by Professor Fisher, "Why Incomes are Unequal."
- 8.0: Town Hall chimes.
Concert by St. Kilda Band, under conductorship of Mr. James Dixon, and assisting artists.
- 8.1: Overture—Band, "Machine Gun Guards" March (Marechal).
Waltz—Band, "Casino Tanze" (Gungl).
- 8.11: Baritone solos—Mr. A. C. Parkin, (a) "Roadways" (Lohr), (b) "Captain Mac" (Sanderson).
- 8.18: Violin and guitar—Giulietta Morino, (a) "Harlequin's Serenade" (Drigo); (b) "Could I" (Poggis) (Zonophone Record EE134).
- 8.24: Recital—Mr. Lester Moller, "The Seven Ages of Man" (Shakespeare).
- 8.31: Selection—Band, "Memories of the Opera" (Rimmer).
- 8.45: Male chorus—Medley, "Over There" (H.M.V. Record EB33).
- 8.49: Soprano solos—Mrs. Herbert Burrow, (a) "Carmena" (Wilson), (b) "The Cuckoo" (Lehman).
- 8.56: Saxophone duet—Rudy Wiedoeft and Arnold Brilhart, "The Swallow" (Zonophone Record EE129).
- 9.0: Weather report.
- 9.2: Cornet solo with band accompaniment, "Danny Boy" (Weatherley).
- 9.8: Tenor solo—Walter Glynn, "Jeunesse" (Barry) (H.M.V. Record B2761).
- 9.11: Medley waltz—The Troubadours, "Popular Songs of Yesterday" (H.M.V. Record EB33).
- 9.15: Baritone solo—Mr. A. C. Parkin, "Shipmates o' Mine" (Sanderson).
- 9.19: Accordion with banjo—P. Frosini, "Silver Moon" Waltz (Frosini) (Zonophone Record EE129).
- 9.22: Overture—Band, "Egmont" (Beethoven).
- 9.32: Recitals—Mr. Lester Moller, (a) "Another Terrible Tragedy" (Roberts), (b) "The Spring Poet" (Anon.).
- 9.38: Tenor solo—John McCormack, "Mother Machree" (Ball) (H.M.V. Record DA958).
- 9.41: Intermezzo—Band, "The Crown of Love" (Tipping).
- 9.47: Soprano solo—Mrs. Herbert Burrow, "The Star" (Rogers).
- 9.51: Chorus—Light Opera Company, "Gems from 'Lilac-Time'" (Schubert—Clutsum) (H.M.V. Record C1450).
- 9.55: March—Band, "Pirate King" (Greenwood).
- 10.0: Close down.

Wednesday, May 29

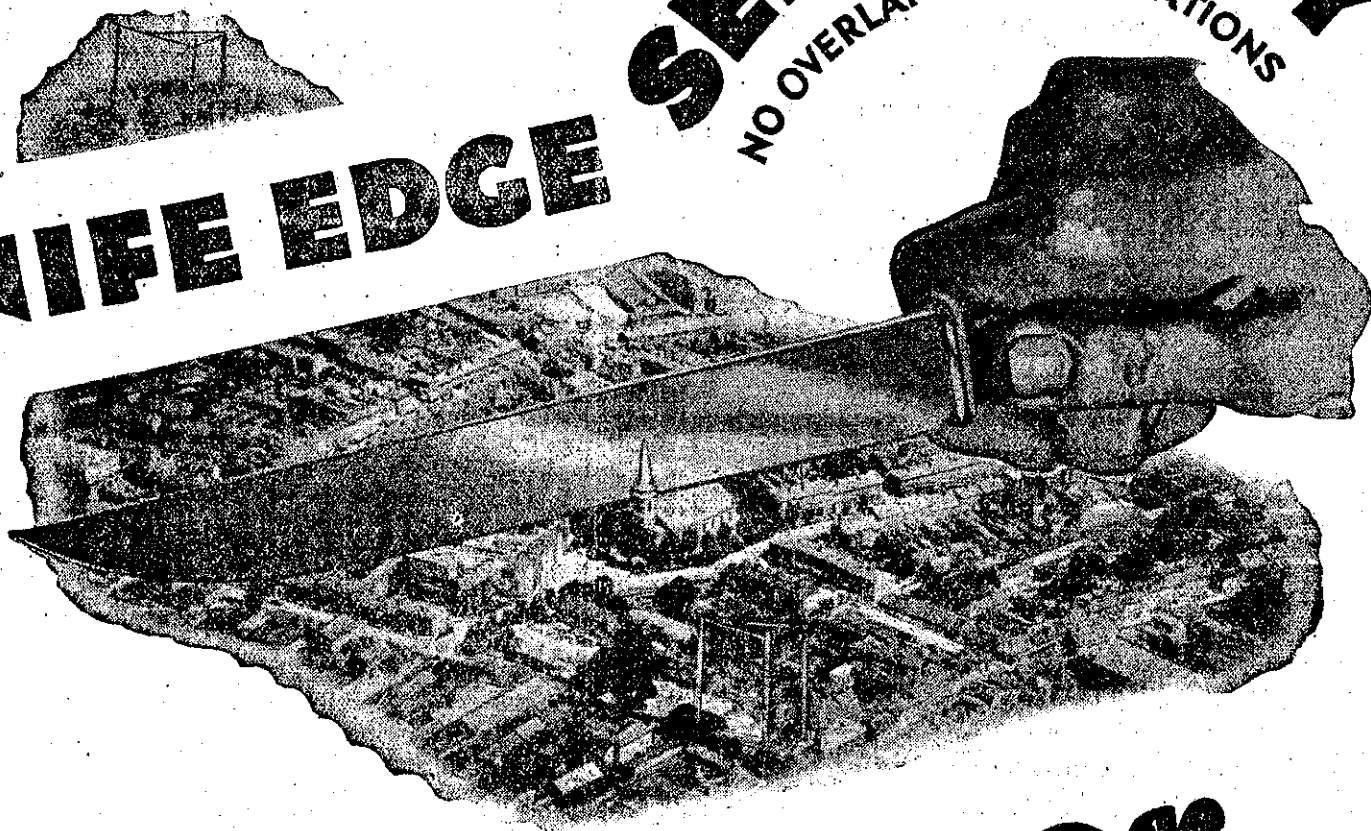
1YA, AUCKLAND (333 METRES)—WEDNESDAY, MAY 29.

- 3 p.m.: Afternoon session—selected studio items.
- 4.0: Literary selection by the announcer.
- 4.8: Further studio items.
- 4.25: Sports results to hand.
- 4.30: Close down.
- 6.0: Children's session, conducted by Uncle Tom.
- 7.0: News session.
- 7.40: Talk—Mr. L. J. Cronin, "The House of Commons at Work." (Mr. Cronin has had four and a-half years experience in "lobbying" in the reporters' gallery, and his talk will deal particularly with the workings of the English House of Commons, in view of the forthcoming Parliamentary Election at Home.)
- 8.0: Chimes.
Studio concert by the Auckland Artillery Band, under the conductorship of Mr. Wyn Smith, and assisting artists.
- 8.1: March—Band, "The Cossack" (Rimmer).
Selection—Band, "Lortzing" (Smith).
- 8.17: Bass—Mr. Ernest Thomas, "A Sergeant of the Line" (Squire).

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- 8.21: Elocution—Miss Gladys Gammon, "His First Long Trousers" (Guest).
 8.26: Quartet—Lyric Quartet, "Timbuctoo" (Parks).
 8.30: Contralto and male quartet—Sophie Braslau, "Old Folks at Home" (Forster) (Columbia Record 04215).
 8.34: Xylophone duet—Byrne and Bennett, "The Two Imps" (Alford) (Columbia Record 02745).
 8.38: Tenor solo—Mr. Arthur Ripley, "My Dear" (Slater).
 8.42: Cornet duet—Band, "Ida and Dot" (Lozey).
 Fantasia—Band, "Martial Moments" (Hume).
 8.58: Humour—Mr. Allan McElwain.
 9.3: Weather report.
 9.6: Chorus—The Revellers, "Gems from 'Tip Toes'" (Gershwin). (H.M.V. Record C1293).
 9.10: Cornet solo—Band, "My Pretty Jane" (Bishop).
 Selection—Band, "La Strania" (Belline).
 9.25: Quartet—Lyric Quartet, "Mother Goose Medley" (Parks).
 9.27: Elocution—Miss G. Gammon, (a) "Out at Mons" (Hastings); (b) "Butterflies" (Campbell).
 9.37: Descriptive selection—Band, "A Trip to Blackpool" (Bidgood).
 9.45: Humour—Mr. A. McElwain.
 9.50: Contralto and male quartet—Sophie Braslau, "Carry Me Back to Old Virginny" (Bland) (Columbia Record 04215).
 9.54: Quartet—Lyric Quartet, "Plantation Melodies" (arr. Lyrics).
 9.59: March—Band, "Minor and Major" (Alford).
 10.4: Close down.

2YA, WELLINGTON (420 METRES)—WEDNESDAY, MAY 29.

SILENT DAY.

3YA, CHRISTCHURCH (306 METRES)—WEDNESDAY, MAY 29.

- 3 p.m.: Afternoon session—Selected gramophone records.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by Mother Hubbard and Uncle Frank.
 7.0: News session.
 7.15: Addington stock market report.
 8.0: Chimes.
 Operatic programme, featuring "Oh, Oh, Delphine" (Ivan Caryll) and "Nutcracker Suite" (Tschalkowsky).
 8.1: Overture—Edith Lorand Orchestra, "The Dollar Princess" (Fall) (Parlophone Record E10512).
 8.9: Chorus—The Radiolians, "Opening Chorus" ("Oh, Oh, Delphine") (Caryll).
 8.13: Tenor solo and chorus—Mr. Greg. Russell and Radiolians, "Posing for Venus" (Caryll).
 8.16: Orchestral—Berlin State Opera House Orchestra, "Nutcracker Suite" (Tschalkowsky); (a) Overture Miniature; (b) Marche.
 8.24: Bass solo—Mr. W. J. Richards, "Please Turn Your Backs" (Caryll).
 8.27: Chorus—Radiolians, "Oh, a Funny Little Man" (Caryll).
 8.31: Recital—Miss Ruby Boot, "Lecture by one of the Sex" (MS.).
 8.38: Instrumental quintet—Bohemian Quintet, (a) "Air" (Bach); (b) "Five Interludes from 'The Beggars' Opera'" (Austin).
 8.48: Vocal duet—Mrs. Claris Shaw and Mr. Greg. Russell, "Oh, Oh, Delphine" (Caryll).
 8.51: Contralto Solo and Chorus—Miss M. Russell and Chorus, "Oh, Gifted Master" (Caryll).
 8.54: Orchestral—Berlin State Opera House Orchestra, "Nutcracker Suite" (Tschalkowsky); (a) Danse Arabe; (b) Danse Chinoise. (Parlophone Record E10518).
 9.2: Soprano solo and chorus—Radiolians, "The Maxim Girl" (Caryll).
 9.5: Weather report.
 9.10: Instrumental quintet—Bohemian Quintet, "Gressenhall Suite" (Woods).
 9.20: Duet—Contralto and bass, Miss Russell and Mr. Richards, "Can We Forget?" (Caryll).
 Chorus—Radiolians, "Oh, Come, Bonchotte" (Caryll).
 9.27: Orchestral—Berlin State Opera House Orchestra, "Nutcracker Suite" (Tschalkowsky); (a) Danse de la Fee Dragon; (b) Danse Russe—Trepak (Parlophone Record E10517).
 9.35: Chorus—Radiolians, "Pavlova, Come Over" (Caryll).
 9.39: Recital—Miss Ruby Boot, "Dreaming John" (Milne).
 9.44: Instrumental trio for violin, viola and piano—Florence Millar, Mr. D. Mercer, and Dorothy Davies, "Allegro for Violin, Viola, and Piano" (Mozart).
 9.50: Concerted—Mr. W. J. Richards and Mrs. C. Shaw and Miss Russell and Chorus, (a) "Everything's at Home" (Caryll); (b) "The Quarrel"; (c) "The Venus Waltz" (Moncton) (Caryll); (d) "Oh, Oh, Delphine" (Moncton) (Caryll).
 10.0: Orchestral—Berlin State Opera House Orchestra, "Nutcracker Suite" (Tschalkowsky); (a) Danse des Mirlitons; (b) Valse des Fleurs (Parlophone Record E10519).
 10.8: Close down.

4YA, DUNEDIN (463 METRES)—WEDNESDAY, MAY 29.

- 3 p.m.: Town Hall chimes.
 3.1: Selected gramophone items.
 4.25: Sporting results to hand.
 4.30: Close down.
 6.0: Town Hall chimes.

- 6.1: Children's session, conducted by Aunt Anita.
 7.0: News session.
 8.0: Town Hall chimes.
 8.1: Overture—Berlin State Opera Orchestra, "Martha" (Flotow). (H.M.V. Record C1506).
 8.9: Quartet—The Serenaders, "Break, Break, Break" (McFarraan).
 8.13: Orchestral—Weber's Orchestra, "Faust" (selection) (Gounod) arrgd. Weber) (H.M.V. Record C1511).
 8.21: Soprano solos—Miss Florence Sumner, (a) "Where the Abana Flows" (Finden); (b) "Sunrise and Sunset" (Spross).
 8.28: Recitals—Miss Sheila Neilson, (a) "Como" (anon); (b) "The Village Bazaar".
 8.36: Baritone solos—Mr. R. B. Macdonald, (a) "Coaling" (anon); (b) "The Drum Major" (Newton).
 8.48: Relay of Ritz Orchestra's special features.
 8.50: Male voices—Salon Group, (a) "Jeannine, I Dream of Lilac Time" (Gilbert); (b) "Sonny Boy" (Jolson) (H.M.V. Record EB35).
 8.58: Contralto solo—Miss Dorothy Allan, (a) "I Dream of a Garden of Sunshine" (Lohr); (b) "Cherry Ripe" (Horn).
 9.5: Weather report.
 9.7: Quartet—The Serenaders, "Barbara Allen" (Arundale).
 9.11: Hawaiian—Kolomoku's Honoluluans, "Aloha-oe" (Lihoukalani) (Zonophone Record EF23).
 9.15: Tenor solos—Mr. W. Harrison, (a) "My Girl and I" (Clarke); (b) "Because I Love You" (Hanley).
 9.22: Recital—Miss Sheila Neilson, "Oh that Telephone" (May).
 9.26: Relay of Ritz Orchestra's special features.
 9.36: "Columbia" dance programme:
 March—H.M. Grenadier Guards Band, "Twist and Twirl" (Kottan) (Columbia Record 0987).
 Foxtrot—Denza Dance Band, "Dance of the Blue Danube" (Fischer) (Columbia Record 01151).
 Foxtrot—Biltmore Hotel Orchestra, "Sweet Sue—Just You" (Columbia Record 01249).
 Foxtrot with vocal refrain—Paul Whiteman's Orchestra, "Just a Sweetheart" (Dreyer) (Columbia Record 07015).
 9.40: Tenor solo—Alfred O'Shea, "Love's Garden of Roses" (Wood) (Columbia Record 04117).
 Vocal duet—Layton and Johnstone, "Because My Baby Don't Mean 'Maybe' Now" (Donaldson) (Columbia Record 01339).
 Piano duet—Constance Mering and Muriel Pollack, "High Hat" (Foxtrot) (Alter) (Columbia Record 01224).
 Foxtrot—Piccadilly Revels Band, "Dolores" (Kassel) (Columbia Record 01157).
 Waltz with vocal refrain—Paul Whiteman's Orchestra, "Where is the Song of Songs for Me?" (Berlin) (Columbia Record 07015).
 10.3: Soprano and male quartet—Norah Blaney and Ramblers, "Just Like Darby and Joan" (Leslie) (Columbia Record 01170).
 Pianoforte solo—Gil Dech, "Sometimes I'm Happy" (Youmans) (Columbia Record 01205).
 Foxtrot with vocal refrain—Paul Whiteman's Orchestra, "Roses of Yesterday" (Berlin) (Columbia Record 07014).
 Novelty foxtrot—Debroy Somers Band, "Laughing Marionette" (Collins) (Columbia Record 01341).
 Waltz with vocal refrain—Paul Whiteman's Orchestra, "The Sidewalks of New York" (Lawlor) (Columbia Record 07014).
 10.20: Tenor solo—Alfred O'Shea, "Love, Here is My Heart" (Rose) (Columbia Record 03589).
 Xylo-rimba Orchestra, "Along Miami Shore" (Warren) (Regal Record G20328).
 Marimba orchestra—Rio Marimba Orchestra, "My Isle of Golden Dreams" (Blauffuss) (Columbia Record 02685).
 10.30: Humour—Flotsam and Jetsam, "Optimist and Pessimist" (Hilliam) (Columbia Record 0995).
 Hawaiian—South Sea Islanders, "Dreamy Hilo Bay" (Clark) (Columbia Record 01162).
 Hawaiian—King's Hawaiian Players, "Hilo March" (Berger) (Columbia Record 01226).
 Pipe organ solo with vocal chorus—Milton Charles, "Are You Happy?" (Ager) (Columbia Record 01184).
 10.44: Tenor solo—Chas. Hackett, "The World is Waiting for the Sunrise" (Lockhart) (Columbia Record 03596).
 Vocal solo—Vaughan de Leath, "I Just Roll Along" (De Rose) (Columbia Record 01136).
 Waltz—Xylo-rimba Orchestra, "My Sweetheart" (Nelson) (Regal Record G20328).
 Vocal solo—Vaughan de Leath, "Watching for the Boogie Man" (Johnson) (Columbia Record 01136).
 Vocal duet—Jack Lumsdaine and Len Maurise, "Good-night" (Wood) (Columbia Record 01191).
 11.0: Close down.

Thursday, May 30

IYA, AUCKLAND (333 METRES)—THURSDAY, MAY 30.

- 3 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the announcer.
 4.8: Further studio items.

- 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session conducted by Peter Pan.
 7.0: News session.
 7.40: Talk—Mr. N. M. Richmond, B.A., Director of W.E.A., "Achievements of Co-operation."
 8.0: Chimes.
 8.1: Overture—Orchestra, "Caliph of Baghdad" (Boieldieu).
 8.11: Bass-baritone—Mr. Frank Sutherland, "Five and Twenty Sailormen" (Taylor).
 8.15: Novelty—The Nifty Three, (a) "Nothin'" (Bernstein), (b) "My Blue Ridge Mountain Home" (Robison).
 8.22: Humour—Mr. T. T. Garland, "Moments of Mirth."
 8.27: Soprano solo—Miss Millicent O'Grady, "Carmena" (Wilson).
 8.31: Suite—Orchestra, "Four Indian Love Lyrics" (Woodforde-Finden):
 (1) Temple Bells, (2) Less than the Dust, (3) Kashmiri Song, (4) Till I Wake.
 8.41: Bass-baritone solos—Mr. Frank Sutherland, (a) "The Lazy Shepherds" (Henty), (b) "Stockrider's Song" (Jeames).
 8.48: Novelty—The Nifty Three, (a) "The Sweetheart of Sigma Chi" (Vernor), (b) baritone solo, "Friend of Mine" (Sanderson), (c) "Melody of Choruses" (Shay).
 8.58: Weather report.
 9.3: Ballet suite—Orchestra, "Coppello Ballet Suite" (Delibes): (1) Slavonic Theme with Variations, (2) Festival Dance and Waltz of the Hours, (3) Nocturno, (4) Automaton Music and Waltz.
 9.11: Soprano solos—Miss Millicent O'Grady, (a) "My Heart is Like a Singing Bird" (Parry), (b) "The Last Rose of Summer" (Moore).
 9.18: Humour—Mr. T. T. Garland, "More Moments of Mirth."
 9.22: Dance suite—Orchestra, "Nell Gwynne Dances" (German).
 9.30: Overture—Jack Hylton's Orchestra, "The Selfish Giant" (Cotes) (H.M.V. Record C1253).
 "His Master's Voice" Dance Programme:
 Foxtrot with vocal chorus—Henry Busse's Orchestra, "One Step to Heaven" (Klages) (H.M.V. Record EA437).
 Foxtrot—Arcadians Dance Orchestra, "There's Something about a Rose" (Fain) (Zonophone Record 5169).
 Waltz—Troubadours, "Diane" (Rapee) (H.M.V. Record EA269).
 9.49: Duet with violin, banjo, guitar, and harmonica—Dalhart and Robison, "My Blue Mountain Home" (Robison) (H.M.V. Record EA295).
 Jazz piano solo—Pauline Alpert, "The Dancing Tambourine" (Ponce) (Zonophone Record EE98).
 Foxtrot—Arcadians Dance Orchestra, "Chilly-Pom-Pom-Pee" (Bryan) (Zonophone Record 5169).
 Foxtrot—Henry Busse's Orchestra, "How About It?" (Klages) (H.M.V. Record EA437).
 10.2: Humour—Norman Long, "Under the Bazunka Tree" (Weston) (H.M.V. Record B2454).
 Wurlitzer organ solo—Jesse Crawford, "High Hat" (Alter) (H.M.V. Record EA426).
 Foxtrot with vocal refrain—George Olsen and His Music, "Old Man Sunshine" (Dixon) (H.M.V. Record EA422).
 Foxtrot with vocal chorus—George Olsen and His Music, "Doin' the Raccoon" (Klages) (H.M.V. Record EA446).
 Foxtrot—Louisiana Sugar Babies, "Persian Rug" (Kahn) (H.M.V. Record EA397).
 10.14: Tenor with orchestra—John McCormack, "Somewhere a Voice is Calling" (Tate) (H.M.V. Record DA914).
 Waltz—Hilo Hawaiian Orchestra, "Kawaihau Waltz" (Kealakai) (H.M.V. Record EA397).
 Foxtrot with vocal chorus—Shilkret's Orchestra, "Baby's Blue" (Hupfeld) (H.M.V. Record EA422).
 Foxtrot with vocal refrain—Statler Pennsylvanians, "It Goes Like This" (Caesar) (H.M.V. Record EA446).
 10.25: Bass-baritone solo—Peter Dawson, "Now Your Days of Philandering Are Over" (Mozart) (H.M.V. Record C1401).
 Violin with kinema organ—Elsie Southgate, "Rose in the Bud" (Forster) (Zonophone Record 5109).
 Foxtrot—Nat Shilkret's Orchestra, "Nagasaki" (Dixon) (H.M.V. Record EA412).
 Guitar and piano—Roy Smeek and Art Kahn, "Itchin' Fingers" (Robison) (Zonophone Record EE119).
 Waltz—Nat Shilkret's Orchestra, "Till We Meet Again" (Egan) (H.M.V. Record EA412).
 10.42: Whispering Voices—Devonshire Dance Band, "At the End of an Irish Moonbeam" (Golden) (Zonophone Record EE84).
 10.46: Community Lancers—Bert Firman's Dance Orchestra, "Figures 1, 2, 3, and 4" (Zonophone Record 5117).
 Community Lancers—Bert Firman's Dance Orchestra, "Figure 5" (Zonophone Record 5118).
 11.0: Close down.

2YA, WELLINGTON (420 METRES)—THURSDAY, MAY 30.

- 8 p.m.: Chimes of the G.P.O. clock.
 8.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Children's session conducted by Uncle George.
 6.0: Dinner session:
 Overture—H.M. Coldstream Guards, "Der Freischütz" (Weber) (H.M.V. Record C1335).

- 'Cello solo—Pablo Casals, "Melody in F" (Rubinstein) (H.M.V. Record DA833).
 6.12: Tacet.
 6.15: Wurlitzer organ solos, (a) Jesse Crawford, "Me and the Man in the Moon" (Leslie), (b) Reginald Foort, "Worryin'" (Fairman) (H.M.V. Record EA491).
 Contralto solo—Marion Anderson, "Deep River" (Negro Spiritual) (Burleigh) (H.M.V. Record B2828).
 Tenor solo—Walter Glynn, "I Love the Moon" (Rubens) (H.M.V. Record B2761).
 6.28: Tacet.
 6.30: Ballet suite—H.M. Coldstream Guards, "La Source" Ballet (arr. Winterbottom): (1) Danse des Echarpes; (2) Scene d'Amour; (3) Variation; (4) Danse Carcassienne (H.M.V. Record B2798).
 Male voices—Goodrich Silvertown Quartet, (a) "Under the Clover Moon" (Healy), (b) "Who's Blue Now?" (Meyer) (Columbia Record 01192).
 6.42: Tacet.
 6.45: Band selections—Black Diamonds Band, (a) "The Gypsy Dance" (George), (b) "The Last Good-bye" (Moretti) (Zonophone Record 5153).
 Bass with chorus—Paul Robeson, "Plantation Songs" (H.M.V. Record C1585).
 6.56: Tacet.
 7.0: News session—Market reports and sports results.
 7.40: Lecture—Miss Margaret O'Connor, "Dancing."
 8.0: Chimes of the General Post Office clock.
 Studio concert by the Band of the 1st Battalion, Wellington Regiment, under the conductorship of Lieut. B. J. Shardlow, and assisting artists.
 8.1: March—Band, "Floredda" (Beresford).
 8.11: Invitation—The Unanimous Fellows, "Stay out of the South" (Dixon).
 Petite selection—Band, "Maritana" (Wallace).
 8.15: Jollity—The Happy Little Fellow, "From Oberon in Fairyland" (Slater).
 8.19: Tenor horn solo—Bandsman J. G. Love, "Iona" (Allison).
 8.25: Waltz—Band, "Remembrance" (Joyce).
 8.31: Soprano—Miss Blanche Densem, "Till I Wake" (Indian Love Lyric) (Woodforde-Finden).
 8.35: Concerted—The Mellow Fellows, "So Do I" (traditional).
 8.39: Recital—Miss Sinclair Breen, (a) "The West Wind" (Masefield), (b) selected.
 8.46: Tenor solo—The Tenor Fellow, "In a Bamboo Garden" (Donaldson).
 8.50: Cornet solo—Sergt. W. Barke, "Spring Song" (Mendelssohn).
 8.54: March—Band, "Oriental" (Rosse).
 8.58: Weather report.
 9.0: Memories—The Baritone Fellow, "Just a Cottage Small" (Hanley).
 9.4: Duet—The Tenor and Bass Fellows, "Sing, Sing, Bird on the Wing" (Arundel).
 9.8: Selection—Band, "Sir Henry Bishop's Songs" (Hawkins), introducing (1) Bid Me Discourse; (2) My Pretty Jane; (3) Pretty Mocking Bird; (4) Home, Sweet Home; (5) Little Love is a Mischievous Boy; (6) Come, Live with Me and be My Love; (7) Should He Upbraid.
 9.18: Character song—The Martial Fellow, "Corporal John Bartholemey" (Weatherly).

Sovereign's Birthday

Monday, 3rd June

Monday! That means a week-end holiday. What to do? Cheap rail fares for everyone, from and to any station, from Thursday, May 30 to Monday, June 3 provide the solution. Enjoy a pleasant holiday change at very low cost.

GO BY RAIL---THE SAFE, SURE WAY

- 9.22: Chorus—Light Opera Company, "Hit the Deck Vocal Gems" (Yumans) (H.M.V. Record C1433).
 9.30: Cornet solo—Lient. B. J. Shardlow, "The Lost Chord" (Sullivan) (by request).
 9.35: Recital—Miss Sinclair Breen, "In the Train" (Anon.).
 9.42: Vibraphone—Rudy Star Three, "Diane" (Rapee).
 Xylophone—Rudy Star Three, "Polly" (Zamecnik) (Parlophone Record A2548).
 9.48: Soprano solo—Miss Blanche Densem, "Vanity Fair" (Clutsam).
 9.52: Character sketch—The Yorksha' Fellow, "Courtin'" (Foy).
 9.57: Harmony—The Mellow Fellows, "O Doris, Where Do You Live?" (Kahn).
 10.1: March—Band, "Bound for Home" (Raymond).
 10.5: Close down.

3YA, CHRISTCHURCH (306 METRES)—THURSDAY, MAY 30.

- 3 p.m.: Afternoon session—Selected gramophone records.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session conducted by "Uncle John."
 7.0: News session.
 7.30: Talk under the auspices of the Canterbury Progress League.
 8.0: Chimes.
 8.1: Overture—Budapest Philharmonic Orchestra, "Hungarian Rhapsody No. 1 in F" (Liszt) (Columbia Record 02728).
 8.13: Three-part songs—Mrs. J. E. Russell's Ladies' Glee Party (accompaniment by Mrs. Russell), (a) "My Love Dwells in a Northern Land" (Elgar), (b) "May Day Song" (Harvey).
 8.21: Pianoforte solo—Mrs. J. E. Russell, "Fifth Valse" (Godard).
 8.25: Soprano solo—Mrs. H. L. Bowker, "Love the Jester" (Phillips).
 8.29: Cello solo—Mr. Harold Beck, "L'Agreable" (Marias).
 8.33: Baritone solo—Mr. Fred Penfold, "The Song of the Volga Boatmen" (traditional Russian folk song, arr. Chaliapin—Koenaman).
 8.38: Instrumental trio—Christchurch Broadcasting Trio, "Allegro Maestoso" (Lalo).
 8.48: Tenor solo—Mr. Harold Prescott, "Lord Randall" (Scott).
 8.53: Three-part songs—Mrs. J. E. Russell's Ladies' Glee Party (accompaniment by Mrs. Russell), (a) "From the Green Heart of the Waters" (Coleridge Taylor), (b) "To a Wild Rose" (MacDowell).
 9.0: Weather report.
 9.5: March—Budapest Philharmonic Orchestra, "Rakoczy March" (Berlioz) (Columbia Record 02729).
 9.9: Madrigals, unaccompanied—Mrs. J. E. Russell's Ladies' Glee Party, (a) "Come Away, Sweet Love" (Miller), (b) "How Beautiful is Night" (Hamblett).
 9.17: Pianoforte solo—Mrs. J. E. Russell, "Automne" (Chaminade).
 9.21: Baritone solo—Mr. Fred C. Penfold, "The Devout Lover" (White).
 9.26: Violin solo—Miss Irene Morris, "Minuett" (Haydn).
 9.30: Part-song and solo—Mrs. H. L. Bowker, "The Fairy Thrall" (Horrocks).
 9.34: Instrumental trios—Christchurch Broadcasting Trio, (a) "Tempo di Menuetto" (Beethoven), (b) "Grave" (Henriques), (c) "Moment Musicale" (Schubert).
 9.44: Tenor solos—Mr. Harold Prescott, (a) "Onaway, Awake, Beloved" (Cowen), (b) "Because" (D'Hardelot).
 9.51: Orchestral—Columbia Symphony Orchestra, "Bandinage" (Herbert) (Columbia Record 01092).
 9.54: Part-songs and contralto solo—Mrs. E. W. Pigeon and Ladies' Glee Party, (a) "The Parting Beam of Daylight" (MS.), (b) "Once Again the Day has Flown" (Franz Abt).
 10.2: Close down.

4YA, DUNEDIN (463 METRES)—THURSDAY, MAY 30.

SILENT DAY.

Friday, May 31

1YA, AUCKLAND (333 METRES)—FRIDAY, MAY 31.

- 8.0 p.m.: Selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Further studio items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by Nod and Aunt Jean.
 7.0: News session—Market reports.
 7.40: Talk—Mr. Frank Sutherland, "Rugby Football."
 8.0: Chimes.
 8.1: Overture—H.M. Grenadier Guards, "Poet and Peasant" (Suppe) (Columbia Record 9087).
 8.9: Vocal Duet—Messrs. Dormer and Mannell, (a) "Sweetest Flower That Blows" (Gheel); (b) "Fairings" (Martin).
 8.13: Instrumental Trio—The Studio Trio, "Andante From Trio Op. 100" (Schubert).
 8.21: Tenor solo—Mr. James Simpson, "Who Is Sylvia?" (Schubert).
 8.25: Organ and Vocal—Mr. Arthur E. Wilson, assisted by Miss Doreen Logan, soprano "Twenty-Minute Recital of Organ Music."
 8.45: Vocal Quartet—The N.Z. Four, "Song of Hope" (Adam).

- 8.49: Pianoforte solos—Mr. Cyril Towsey, (a) "Lotus Land" (Scott); (b) "Valse" (Sibelius).
 8.56: Soprano solo—Lucrezia Bori, "Valse D'Oiseau" (Bird Waltz) (Varney) (H.M.V. Record DA981).
 9.0: Weather report.
 9.3: Waltz—San Francisco Symphony Orchestra, "Valse De Concert" (Glazounoff) (H.M.V. Record D1492).
 9.11: Vocal Duet—Messrs. Simpson and Black, "Souvenirs" (Nicholls).
 9.15: Cello—Miss Molly Wright, "Tarantelle" (Popper).
 9.19: Baritone solo—Mr. Eric Mannell, "Little Mother" (Buchanan).
 9.23: Organ and Vocal—Mr. A. E. Wilson and Miss L. Logan, "Twenty Minute Organ Recital."
 9.43: Vocal Quartet—The N.Z. Four, "Dance in the Moonlight" (Lindrum).
 9.47: Instrumental Trio—The Studio Trio, (a) "Senerade" (Gounod); (b) "Slavonic Dance" (Dvorak).
 9.56: Bass solo—Mr. Duncan Black, "Kerekes Andras" (Korby).
 10.0: Orchestral—Symphony Orchestra, (a) "Spanish Dance"; (b) "Love the Magician" (De Falla) (H.M.V. Record D1453).
 10.8: Vocal Quartet—The N.Z. Four, "Stars of the Summer Night" (Woodbury).
 10.11: Close down.

2YA, WELLINGTON (420 METRES)—FRIDAY, MAY 31.

- 3.0: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 3.40: Relay from Messrs. Kirkcaldie and Stains' Tea Rooms of music by the Trio.
 4.0: Studio items.
 4.30 and 4.55: Sports results to hand.
 5.0: Children's session conducted by Big Brother Jack.
 6.0: Dinner session:
 Overture—National Symphony Orchestra, "Martha" (Flotow) (Zonophone Record EF19).
 Grand organ solo—Marcel Dupre, "The Swan" (Saint-Saens) (H.M.V. Record E518).
 6.12: Tacet.
 6.15: Violin solos—Renée Chemet, (a) "Serenade" (Toselli), (b) "Serenade" (Pierne) (H.M.V. Record DA955).
 Waltz—Marek Weber's Orchestra, "Moonlight on the Alster" (Fetras) (H.M.V. Record C1407).
 6.25: Tacet.
 6.30: Orchestral—San Francisco Symphony Orchestra, "Valse de Concert" (Glazounov) (H.M.V. Record D1492).
 Solo and chorus—Zonophone Light Opera Company, Vocal Gems from "Ruddigore" (Sullivan) (Zonophone Record A342).
 6.42: Tacet.
 6.45: Waltz—Jacque Jacobs' Ensemble, "Vienna Life" (Strauss) (Columbia Record 02556).
 Solo and chorus—Zonophone Light Opera Company, Vocal Gems from "Princess Ida" (Sullivan) (Zonophone Record A342).
 Orchestral—Philadelphia Symphony Orchestra, "Dance of the Fire Bird" (Stravinsky) (H.M.V. Record D1427).
 6.56: Tacet.
 7.0: News session—Market reports and sports results.
 7.40: Lecturette—Mr. Dan McKenzie, "The Laws of Rugby."
 8.0: Chimes.
 8.1: Overture—Orchestra, "Jolly Robbers" (Suppe).
 8.9: Soprano—Miss Gretta Stark, "One Fine Day" (from "Madame Butterfly" (Puccini).
 8.13: Pianoforte—Miss Pauline Rogers, (a) "First Movement, Moonlight Sonata" (Op. 27, No. 2) (Beethoven); (b) "Romance" (Op. 29, No. 9) (Sibelius).
 8.20: Baritone solo—Mr. S. E. Rodger, "O Star of Eve" (from "Tannhauser") (Wagner).
 8.25: Instrumental—Orchestra, "Master Melodies from Famous Light Operas" (Revue 2, arr. Roberts).
 8.33: Recital—Mr. A. P. Dorrian, "The Three Kings" (Longfellow).
 8.40: Contralto solo—Miss Edith Buckmaster, "Ombra Mai Fu" (from "Xerxes") (Handel).
 8.44: Tenor solo—Mr. Oliver Foote, "Here's to Love and Laughter" (from "The Sunshine Girl") (Rubens).
 8.48: Concerted—D'Oyly Carte Opera Company, (a) "I am a Courtier Grave and Serious," (b) "Here is a Case," (c) "Now Let the Loyal Lieges Gather Round" ("The Gondoliers") (Sullivan) (H.M.V. Record D1345).
 8.56: Instrumental—Orchestra, repeat number.
 9.5: Weather report.
 9.6: Soprano solos—Miss Gretta Stark, (a) "Scenes that are Brightest" (from "Maritana") (Wallace), (b) "Fairy Pipers" (Brewer).
 9.13: Instrumental—Orchestra, (a) Violin Solo with orchestral accompaniment, "Thais" (Massenet); (b) Cornet Solo with orchestral accompaniment, "Roberto tu che Adoro" (Massenet).
 9.21: Baritone solo—Mr. S. E. Rodger, "Queen of My Heart" (from "Dorothy" (Massenet).
 9.25: Cembalo solos—Anna Linde, (a) "Le Coucou" (Daquin), (b) "Le Tambourin" (Rameau) (Parlophone Record E10614).
 9.29: Elocution—Mr. A. P. Dorrian, "The Curate Explains" (Anon.).
 9.36: Contralto solo—Miss Edith Buckmaster, "Dinah" (from "The Belle of New York") (Kerker).
 9.40: Tenor solos—Mr. Oliver Foote, (a) "Oh Promise Me" (from "Robin Hood") (De Koven), (b) "Dear Heart of Mine" (Lewis).

- 9.47: Instrumental—Orchestra, "Popular Melodies" (Sullivan), Second Selection.
 9.57: Male choir—Sheffield Orpheus Male Choir, (a) "Hymn Before Action" (Davies), (b) "The Long Day Closes" (Chorley) (Regal Record G30008).
 10.5: Close down.

3YA, CHRISTCHURCH (306 METRES)—FRIDAY, MAY 31.

- 3.0 p.m.: Afternoon Session—Selected Gramophone Records.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by "Storyman."
 7.0: News session.
 8.0: Chimes.
 8.1: Overture—Rebroadcast of 2YA, Wellington (Conditions permitting).
 8.11: Soprano solo—Miss Mabel Eaglesome, "My Heart's at Your Feet" (Monckton Rubens) ("The Cingalee").
 8.15: Humour—Mr. George Titchener will entertain.
 8.22: Instrumental Trios—Christchurch Broadcasting Trio: (a) "Slow Waltz" (Schott); (b) "Scarf Dance" (Delibes); (c) "Waltz" (Tschalkowsky).
 8.34: Tenor solo—Alfred O'Shea, "Love's Garden of Roses" (Rutherford) (Columbia Record 04117).
 8.38: Dance Music—Bailey-Marston Dance Orchestra, (a) "Naila" (Delibes), (b) "Sweet Sue" (Harris).
 8.45: Popular song—Miss Betty Hilliard, "My Blue Ridge Mountain Home" (Robison).
 8.49: Dance Music—Bailey-Marston Dance Orchestra, (a) "Stay Out of the South" (Dixon); (b) "Sonny Boy" (Henderson).
 8.57: Soprano Solos—Miss Mabel Eaglesome, (a) "Deep In My Heart" ("Student Prince" (Romberg); (b) "The Sun Whose Rays" ("The Mikado") (Sullivan).
 9.5: Weather report.
 9.10: Dance Music—Bailey-Marston Dance Orchestra, (a) "Thirsty For Kisses" (Davies); (b) "Blue Nights" (Revel).
 9.18: Tenor Solo—Alfred O'Shea, "When My Ships Come Sailing Home" (Stewart) (Columbia Record 04117).
 9.22: Humour—Mr. George Titchener will again entertain.
 9.30: Dance Music—Bailey-Marston Dance Orchestra, (a) "Chopinata" (Doucet); (b) "High Up On The Hilltop" (Whiting).
 9.38: Popular Songs—Miss Betty Hilliard, (a) "Eyes of Irish Blue" (O'Hara and Doyle); (b) "I Like London" (Talbot).
 9.46: Dance music by the Bailey-Marston Dance Orchestra until 11 p.m.—interspersed with the following vocal numbers:—
 Tenor Solo—Chas. Hackett, "I Hear a Thrush at Eve" (Cadman) (Columbia Record 03596).
 Soprano Solo—Gladys Moncrieff, "Some Day" (Friml) (Columbia Record 01302).
 Contralto Solo—Sophie Braslau, "Carry Me Back To Old Virginny" (Bland) (Columbia Record 04215).
 Baritone Solo—Robt. Watson, "Drake's Drum" (Stanford) (Parlophone Record E10631).
 Tenor Solos—Fred Williamson, (a) "Side By Side" (Woods); (b) "Dear, On A Night Like This" (Conral) (Parlophone Record A2506).
 Tenor Solos—Hardy Williamson, (a) "A Wandering Minstrel I" (Sullivan); (b) "I Have a Song to Sing O" (Sullivan) (Parlophone Record A2506).
 Mezzo-Soprano—Barbara Maurel, (a) "Indian Dawn" (Zamecnik); (b) "The Bells of St. Mary's" (Adams) (Columbia Record 01250).
 Tenor Solo—Chas. Hackett, "Because" (d'Hardelot) (Columbia Record 03597).
 Comedian—Johnny Marvin, (a) "Sweethearts on Parade" (Newman); (b) "Where The Shy Little Violets Grow" (Kahn) (H.M.V. Record EA477).
 11.0: Close down.

4YA, DUNEDIN (463 METRES)—FRIDAY, MAY 31.

- 3.0 p.m.: Town Hall chimes.
 3.1: Selected gramophone items.
 4.25: Sports results to hand.
 4.30: Close down.
 6.0: Town Hall chimes.
 6.1: Children's session, conducted by Big Brother Bill and Aunt Sheila.
 7.0: News session.
 7.30: Lecturette—Mr. H. Greenwood of the Dunedin Athenaeum, Book Review.
 8.0: Town Hall chimes.
 8.1: Overture—Budapest Philharmonic Orchestra, "Rakoczy" (Berlioz) (Columbia Record 02729).
 8.5: Baritone solos—Mr. Arthur Lungley, (a) "Port of Many Ships" (Frederick); (b) "Trade Winds" (Keel).
 8.12: Cello solo—Mr. P. J. Palmer, "Aria" (Bach).
 8.16: Instrumental—4YA Broadcasting Trio, "To The Spring" (Grieg).
 8.22: Contralto solos—Miss Irene Horniblow, (a) "Lullaby" (Elkin); (b) "Unforseen" (Elkin).
 8.29: Violin solo—Miss Eva Judd, "Romance" (Vieutemps).
 8.34: Sketch—Miss Jolly and Mr. Bain, "It So Happened."
 8.44: Pianoforte solo—Mrs Ernest Drake, Selected.
 8.50: Soprano solos—Miss Irene Heywood, (a) "Like To The Damask Rose" (Elgar); (b) "A Song of Autumn" (Elgar).

- 8.57: Relay of music by the Ritz Orchestra, under the direction of Mr. Pettit.
 9.7: Weather report.
 9.9: Instrumental—4YA Broadcasting Trio, "Syncopation" (Kreisler).
 9.13: Baritone solo—Mr. Arthur Lungley, "To Anthea" (Hatton).
 9.17: Orchestral—New Light Symphony Orchestra, "Peer Gynt Suite No. 2" (Grieg); (a) "Ingrid's Lament"; (b) "Arabian Dance" (H.M.V. Record C1571).
 9.25: Sketch—Miss Jolly and Mr. Bain, "Which?"
 9.35: Contralto solo—Miss Irene Horniblow, "When The Roses Bloom" (Reishart).
 9.39: Orchestral—New Light Symphony Orchestra, "Peer Gynt Suite No. 2" (Grieg); (a) "The Return of Peer Gynt"; (b) "Solweig's Song" (H.M.V. Record C1572).
 9.47: Relay of orchestral music from the Ritz Orchestra.
 9.57: Soprano solo—Miss Irene Heywood, "The Last Hour" (Kramer).
 10.0: Orchestral—New Light Symphony Orchestra, "Prelude In G Minor" (Rachmaninoff) (Zonophone Record EF24).
 10.4: Close down.

Saturday, June 1

1YA, AUCKLAND (333 METRES)—SATURDAY, JUNE 1

- 2.45 p.m.: Relay of description of Rugby football match from Eden Park.
 4.30 (approx): Close down.
 6.0: Children's session, conducted by Cinderella.
 7.0: News and information session.
 8.0: Chimes.
 8.1: Overture—Orchestra, "Barber of Seville" (Rossini).
 8.11: Novelty—The Merry-makers, "Fifteen Minutes of Novelties".
 8.26: Vibraphone novelty—Rudy Star Three, "Diana" (Rapee) (Parlophone Record A2548).
 Accordion solo—Johnny Sylvester, "Mighty Lak' a Rose" (Nevin) (Regal Record G20352).
 8.32: Humour—The Radio Pals, (a) "Toddles and Rooty" (West); (b) "Broken-down Swells".
 8.42: Novelty—Orchestra, "Reminiscences of the Plantation" (Chambers).
 8.50: Contralto solos—Miss Robina Chellburg (Chambers); (b) "Ships That Pass in the Night" (Stephenson); (b) "My Ain Fireside" (Kilner).
 8.58: Xylophone solo—Rudy Star Three, "Polly" (Zamecnik) (Parlophone Record A2548).
 9.2: Weather report.
 9.5: Novelty—The Merry-makers, "Fifteen Minutes of Novelties".
 9.20: Instrumental—Orchestra, (a) Violin solo with orchestral accompaniment, "Romanza" (Sarasate); (b) waltz, "Il Bacio" (Arditi).
 9.30: Humour—The Radio Pals, "Would You Believe It!" (West).
 9.40: Tenor solo—Fred Williamson, "Side by Side" (Woods) (Parlophone Record A2506).
 9.44: Contralto solos—Miss R. Chellberg, (a) "In the Silence" (Loughborough); (b) "The Charm of Spring" (Clark).
 9.50: Musical comedy selection—Orchestra, "Stop Flirting" (Gershwin).
 10.0: His Master's Voice dance programme:
 March—Philadelphia Symphony Orchestra, "Rakoczy March" (Berlioz) (H.M.V. Record ED7).
 Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "In My Bouquet of Memories" (Lewis) (H.M.V. Record EA362).
 Foxtrot with vocal refrain—Warings' Pennsylvanians, "In the Evening" (Hanley) (H.M.V. Record EA368).
 Waltz with vocal refrain—Troubadours, "When Love Comes Stealing" (Rapee) (H.M.V. Record EA410).
 10.14: Baritone solo—Lawrence Tibbett, "Drink to Me Only" (Calcut) (H.M.V. Record DA886).
 Waltz with vocal refrain—Troubadours, "A Kiss Before Dawn" (Perkins) (H.M.V. Record EA410).
 Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "My Angel" (Pollack) (H.M.V. Record EA362).
 Foxtrot—Nat Shilkret's Orchestra, "Get Out and Get Under the Moon" (Tobais) (H.M.V. Record EA368).
 10.27: Orchestral—Philadelphia Symphony Orchestra, "Samson and Delilah" (Saint-Saens) (H.M.V. Record ED7).
 Male voices—The Revellers, "Mammy is Gone" (de Sylva) (H.M.V. Record EA384).
 Pianoforte solo—Pauline Alpert, "The Doll Dance" (Brown) (Zonophone Record EE98).
 Waltz—Bert Firman's Orchestra, "I'm Away From the World" (Clare) (Zonophone Record 5099).
 Dance orchestra, with vocal chorus—Salon Orchestra, "My Blue Heaven" (Whiting) (H.M.V. Record EB18).
 10.40: Organ solo—Edwin Lemare, "Aloha-oe" (Lilukolani) (Zonophone Record EE93).
 Male voices—The Revellers, "Dream River" (Brown) (H.M.V. Record EA384).
 Foxtrot—Bert Firman's Orchestra, "When I Ring Your Front Door Bell" (Lyn) (Zonophone Record 5099).
 Dance Orchestra—New Light Symphony Orchestra, "Just a Memory" (de Sylva) (H.M.V. Record EB18).
 10.53: Comedian—Sir Harry Lauder, "Just Got Off the Chain" (Lauder) (H.M.V. Record D1434).

Waltz—Geo. Olsen's Music, "King for a Day" (Lewis) (H.M.V. Record EA429).

Foxtrot with vocal chorus—Paul Whiteman's Orchestra, "Mississippi Mud" (Barria) (H.M.V. Record EA429).

11.0: Close down.

2YA, WELLINGTON (420 METRES).—SATURDAY, JUNE 1

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

8.1: Relay description of football match from Athletic Park.

5.0: Children's session, conducted by Uncle Toby.

6.0: Dinner session.

Overture—Edith Lorand Orchestra, "The Dollar Princess" (Fall) Parlophone Record E10512).

Wurlitzer organ solos—Reginald Foort, (a) "Just Like a Darby and Joan" (Gilbert); (b) "Love Lies" (Kellard) (H.M.V. Record B2775).

6.13: Tacet.

6.15: Hawaiian—Kolomoku's Honoluluans, (a) "Aloha-oe" (Liliuokalani); (b) "Three O'Clock in the Morning" (Robledo) (Zonophone Record EE28).

Tenor solo—Walter Glynn, "Jeunesse" (Barry) (H.M.V. Record B2761).

6.26: Tacet.

6.30: Orchestral—Victor Salon Orchestra, "The World is Waiting for the Sunrise" (Lockhart) (H.M.V. Record EA186).

Male quartet—Masters Lough and Mallet, and Messrs. Dixon and Hastwell, "Drink to Me Only With Thine Eyes" (Calcott) (H.M.V. Record B2770).

Waltz—Jacque Jacobs' Ensemble, "L'Estudiantina" (Waldteufel) (Columbia Record 02560).

6.40: Tacet.

6.45: Foxtrots—(a) Aaronson's Commanders, "I'll Get By As Long As I Have You" (Turk); (b) McEnelly's Orchestra, "Sleep, Baby, Sleep" (Tucker) (H.M.V. Record EA446).

Bass with chorus—Paul Robeson, "Plantation Songs" (H.M.V. Record C1585).

6.55: Tacet.

7.0: News session, market reports, and sports results.

7.40: Lecture—Mr. A. E. Wilson (of the Government Tourist Department) —"Tourist and Holiday Resorts."

8.0: Chimes.

8.1: Overture—Orchestra, "Americana" (Thurban). 1. The Tiger's Tail. 2. When Malindy Sings. 3. The Watermelon Fete.

8.9: Quartet—Melodie Four, "Old Folks Medley" (Sheridan).

8.13: Novelty instrumental—Bridges Trio, (a) "Old Comrades' March" (Teike); (b) "Chiquita" (Wayne); (c) "Saxophobia" (Wiedoeft).

8.23: Bass solo—Mr. W. W. Marshall, "Wi a Hundreds Pipers and A" (trdtl).

8.27: Humour—Mr. Jack Wilkinson, "And Here's Another Thing" (Weston).

8.34: Instrumental—Orchestra, (a) "Andantino" (Lemare, arrgd Bellingham); (b) "Three O'Clock in the Morning" (Robledo).

8.42: Tenor solo—Mr. Sam Duncan, "Serenade" (Tosselli).

8.46: Soprano solo—Evelyn Scotney, "Elfenlied" (Song of the Elf) (Wolf) (H.M.V. Record E431).

8.49: Quartet—Melodie Four, "Down at the Huskin Bee" (Henry).

8.53: Instrumental—Orchestra, repeat number.

9.0: Weather report.

9.2: Solo and chorus—Zonophone Light Opera Company, "Gems from 'The Pirates of Penzance'" (Sullivan) (Zonophone Record A332).

9.10: Tenor solo—Mr. Frank Bryant, "Song of the Hills" (Lee).

9.14: Novelty instrumental—Bridges Trio (a) xylophone duet, "Imperial Overture"; (b) "Home, Sweet Home" (with variations) (Bishop).

9.24: Humour—Mr. Jack Wilkinson, "It's the Girls That Make the Seaside" (Weston).

9.31: Instrumental—Orchestra, (a) waltz, "Weeping Willow Lane" (McKinley); (b) march, "Marche Turque" (Moussorgsky).

9.39: Baritone solo—Mr. R. S. Allwright, "Hine e Hine" (Hill).

9.43: Vocal quartet—Melodie Four, "Cos I'd Nothing Else to Do" (Parks).

9.43: Novelty—"Army Reminiscences" (Regal Record G20372) (by request).

9.49: Instrumental—Orchestra, dance novelties.

10.0: His Master's Voice dance programme:

Foxtrot—Jamk Hylton's Orchestra, "Swords and Sabres" (Bennett) (Bennett) (H.M.V. Record B5160).

Foxtrot with vocal chorus—Rhythmic Eight, "Possibly" (Gibbons) (Zonophone Record EE97).

Wurlitzer organ—Jesse Crawford, "Jeannine, I Dream of Lilac Time" (Gilbert) (H.M.V. Record EA425).

10.9: Baritone solo—Peter Dawson, "Believe Me If All Those Endearing Young Charms" (Moore) (H.M.V. Record DA886).

Wurlitzer organ—Jesse Crawford, "Ten Little Miles from Town" (Kahn) (H.M.V. Record EA426).

Foxtrot—Jack Hylton's Orchestra, "Palace of Dreams" (Waller) (H.M.V. Record B5159).

Foxtrot—Jack Hylton's Orchestra, "Babying You" (Ruby) (H.M.V. Record B5160).

Waltz with male quartet—The Troubadours, "Beggars of Life" (Brennan) (H.M.V. Record EA441).

10.24: Tenor solo—Jno. McCormack, "Mother Machree" (Bail) (H.M.V. Record DA958).

Tango Argentino—International Novelty Orchestra, "El Chocio" (Viloldo) (H.M.V. Record EA364).

Waltz—The Troubadours, "Cielito Lindo" (Beautiful Heaven) (H.M.V. Record EA349).

Foxtrot with vocal refrain—Kahn's Orchestra, "In a Mambo Garden" (Donaldson) (H.M.V. Record EA435).

10.36: Scottish comedian—Sir Harry Lauder, "The Pirate" (Lauder) (H.M.V. Record D1434).

10.40: Chorus with orchestra—Light Opera Company, "Hit The Deck Vocal Gems" (Youmans) (H.M.V. Record C1433).

Foxtrot—Jack Hylton's Orchestra, "Don't Forget" (Hanley) (H.M.V. Record B5159).

Foxtrot with vocal chorus—Rhythmic Eight, "There's a Rickety Racketty Shack" (Tobias) (Zonophone Record EE97).

Hawaiian—Ferrer and Paaluh, "Kilima Waltz" (trdtl.) (H.M.V. Record B2369).

Marimba orchestra—"When It's Love Time in Hawaii" (Heagney) (Zonophone Record 3852).

Foxtrot—Paul Whiteman's Orchestra, "O, Ya Ya" (Klages) (H.M.V. Record EA340).

Foxtrot—Shilkret's Orchestra, "Sometime's I'm Happy" (Youmans) (H.M.V. Record EA253).

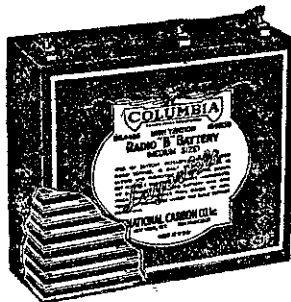
11.0: Close down.

3YA, CHRISTCHURCH (306 METRES).—SATURDAY, JUNE 1.

12.0: Results of Canterbury Park Trotting Meeting, held at Addington. 3 p.m.: Afternoon session—selected studio items.

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4.25: Sports results to hand.
 4.30: Close down.
 6.0: Children's session, conducted by Chuckle and Aunt Pat.
 7.0: News session.
 7.30: Sports results.
 8.0: Chimes.
 8.1: Rebroadcast of 2YA, Wellington.
 10.0: Dance programme.
 11.0: Close down.

4YA, DUNEDIN (463 METRES).—SATURDAY, JUNE 1.

2.45 p.m.: Relayed description of senior Rugby football match from Carisbrook Ground.
 6.0: Town Hall chimes.
 6.1: Children's session, conducted by Uncle George.
 7.0: News session.
 8.0: Town Hall chimes.
 8.1: Relay of 3YA, Christchurch.
 11.0: Close down.

Sunday, June 2

1YA, AUCKLAND (333 METRES).—SUNDAY, JUNE 2,

3.0 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the announcer.
 4.8: Further studio items.
 4.30: Close down.
 6.0: Children's Song Service, conducted by Uncle Len.
 6.55: Relay of evening service from St. Mary's Cathedral.
 8.25 (approx.): Studio Concert.
 Orchestral—Halle Orchestra, "Carneval Overture" (Dvorak) (Columbia Record 04073).
 Baritone solos—Mr. Clinton Williams: (a) "Behold the Master Passeth By" (Hammond); (b) "God, That Madest Earth and Heaven" (Sanderson).
 Piano solo—Miss Sylvia Kindberg, selected.
 Mezzo-Soprano solo—Miss Ivy Taylor, "Ave Maria" (Kahn).
 String Quartet—London String Quartet, "Allegro con Moto" (from "Three Idylls") (Bridge). (Columbia Record L1705).
 Tenor solos—Mr. T. Moffitt, (a) "Angels Guard Thee" (Godard); (b) "Requiem" (Homer).
 Baritone solo—Mr. C. Williams, "The Lord is My Shepherd". (Liddle).
 Piano solo—Miss S. Kindberg, selected.
 Soprano solos—Miss I. Taylor, (a) "Serenata" (Toselli); (b) "Rosary" (Niven).
 Choral—The Sheffield Choir, (a) "Strike the Lyre" (Cooke); (b) "The Sea Hath its Pearls" (Pinsuti); (c) "A Secret" (Coward) (Columbia record 9159).
 Tenor solos—Mr. H. Moffitt, (a) "Sometimes in Summer" (Bennett); (b) "The Dove" (Clark).
 Band—Regimental Band of H.M. Grenadier Guards, "March Pompeuse" (Becker) (Columbia Record 0821).
 Close down.

2YA, WELLINGTON (420 METRES).—SUNDAY, JUNE 2.

3 p.m.: Afternoon session—selected gramophone items.
 4.30: Close down.
 6.0: Children's song service, conducted by Uncle George.
 7.0: Relay of evening service from St. Andrew's Presbyterian Church. Preacher, Rev. R. Howie. Organist and choirmaster, Mr. Frank Thomas.
 8.15 (approx.): Relay from His Majesty's Theatre of band recital of the Wellington Municipal Tramways Band, under the conductorship of Captain T. Herd.
 Close down.

3YA, CHRISTCHURCH (306 METRES).—SUNDAY JUNE 2.

3.0 p.m.: Afternoon session—Selected gramophone items.
 4.30: Close down.
 5.30: Children's Song Service.
 6.15: Hymn tunes.
 6.30: Relay of evening service from Durham Street Methodist Church—Preacher: Rev. W. T. Blight. Organist: Mr. Ernest Firth, F.R.C.O.
 7.45: Gramophone recital.
 8.15 (approx.): Rebroadcast of relay from His Majesty's Theatre, Wellington, of Band recital by the Wellington Municipal Tramways Band under the conductorship of Capt. T. Herd.
 Close down.

4YA, DUNEDIN (463 METRES).—SUNDAY, JUNE 2.

3.0 p.m.: Town Hall chimes.
 3.1: Selected gramophone items.
 4.30: Close down.
 5.30: Children's song service conducted by Big Brother Bill.
 6.15: Close down.

6.30: Relay of service from Knox Church. Preacher: Rev. James Burns. Organist: Mr. C. Roy Spackman.
 8.5: Relay of Kaikorai Band concert from His Majesty's Theatre.
 9.15: Close down.

American Programmes

FOLLOWING is a sample of an American programme—that of KNX, Hollywood, headed "Daily except Sunday":—

6.45 to 7 a.m.—"Early birds" exercises, given by Dr. P. M. Seixas.
 7.15 to 7.30 a.m.—"Pep and vigour" exercises, given by Dr. P. M. Seixas.
 7.45 to 8 a.m.—"Home folks" exercises, given by Dr. P. M. Seixas.
 8.15 a.m.: Time signals from Washington, D. C.
 8.55 a.m.: Time signals from Washington, D. C.
 9 to 9.30 a.m.: Musical programme.
 9.30 to 10 a.m.: Radio shopping news, conducted by Carey Preston Littlemeister.
 10 a.m.: Town Crier of the Day's morning message.
 10.30 a.m.: Kate Brew Vaughn, director of Household Economics Department of the "Evening Express" (except Friday and Saturday).
 12 noon: Longines time signals, courtesy George D. Davidson Company.
 12 noon to 12.30 p.m.: Musical programme.
 12.30 to 12.45 p.m.: W. F. Alder, travelogue.
 1.30 to 2 p.m.: The Bookworm.
 2 to 2.30 p.m.: Programme, through the courtesy of the Los Angeles "Evening Express" classified advertising department.
 4 p.m.: Lost and found announcements.
 4.25 p.m.: Stock market reports.
 5 to 5.45 p.m.: "Own Your Own Home," by Chet Mittendorf.
 5.45 to 6 p.m.: Town Crier's timely amusement tips.
 6 to 6.30 p.m.: Organ programme from the Hotel Ambassador.
 6.30 to 7 p.m.: Dinner programme, presenting the KNX Concert Orchestra, under the direction of Monroe Jockers.
 7 p.m.: Longines time signals, courtesy George D. Davidson Company.
 10 p.m.: Longines time signals, courtesy George D. Davidson Company.
 10 p.m. to 12 midnight: Hotel Ambassador, Gus Arnheim and his Cocoanut Grove Orchestra, through the courtesy of the Reo Motor-car Company of California.
 12 midnight to 1 a.m.: The Dorado Club Silver Fizz dance hour.

A Sunday's Entertainment.

9 to 10 a.m.: Musical programme by Chet Mittendorf.
 10 to 11 a.m.: Regum Toothpaste Company courtesy programme.
 11 a.m. to 12.30 p.m.: First Presbyterian Church of Hollywood. Rev. Stewart P. MacLennan, pastor.
 12.30 to 1 p.m.: "Automobile Buyers' Guide."
 1 to 2 p.m.: International Bible Students' Association.
 2 to 4 p.m.: City Park Board musical programme.
 4 to 5 p.m.: First Radio Church of the Air.
 5.30 to 6 p.m.: All Souls' Church. Dr. Charles F. Aked speaking.
 6 to 6.30 p.m.: Talk by Ernest Holmes, through the courtesy of the Institute of Religious Science and Philosophy.
 6.30 to 7 p.m.: Dr. Theodore Curtis Abel, of the Hollywood Humanist Society.
 7 to 8 p.m.: Paramount hour, presenting famous personalities of the screen, Paramount Orchestra, etc.
 8 to 9 p.m.: First Presbyterian Church of Hollywood, Rev. Stewart P. MacLennan, pastor.
 9 to 10.30 p.m.: Calmon Luboviski, master violinist; Claire Mellonino, pianist; Walter V. Ferner, cellist.

COMING !!

Milrox Cathedral Grand

8-VALVE ALL ELECTRIC RADIO



Wonderful Quality at wonderfully moderate price.

Dealers and Listeners are invited to write for information.



Distributors, Box 714, Ch.Ch.

Children's Sessions

AT IYA.

TUESDAY, May 28.—Uncle Pat taking the place of Uncle George to-night, so gather round and hear what he has to say. More dog stories, which we all love, and musical items provided by cousins.

WEDNESDAY.—Another happy hour with Uncle Tom who has all sorts of entertaining things up his sleeve. Cousin Molly will be present, too, with her violin.

THURSDAY.—Once again we are to be entertained by the pupils of Miss Blaires, who have a cheery programme to give. Peter Pan will have stories and send birthday greetings.

FRIDAY.—Nod and Aunt Jean have their usual store of stories, songs and jokes. Cousin Miriam will give piano solos.

SATURDAY.—A play to-night. Goody—Several little cousins taking part and Cinderella with stories, puzzles and birthday greetings as well.

SUNDAY.—Children's Song Service conducted by Big Brother George assisted by cousins from Beresford Street Sunday School.

AT 2YA.

MONDAY, MAY 27.—Boy Scouts to-night from Lower Hutt under Mr. T. L. McKenzie. What a time we're going to have. Uncle Jeff will be here, too, with a new puzzle.

TUESDAY Who do you think will be here to-night? Why, Punch, and maybe Judy will come too. Uncle Jim will have his birthday wishes already. Cousin Teddy will give a little talk and there will be music from some cousins whom Miss Grey is bringing down to the studio.

THURSDAY.—Some old friends to-night. The pupils of Miss Agnes Wright giving music, song and recitation. There will be birth-

day greetings from Uncle George.

FRIDAY.—To-night we will have music and recitations from pupils of Mrs. Evans. Mrs. Evans has arranged many programmes for us, all of which have been most enjoyable. Brother Jack will bring Robinson.

SATURDAY.—Music and story to-night from four little cousins. Greetings, song and story from Uncle Toby and Aunt Gwen.

SUNDAY.—The Children's Song Service will be conducted by Uncle George assisted by the Thorndon Methodist Sunday School choir under Mr. W. G. Ackerd.

AT 3YA.

MONDAY, MAY 27.—Off we go to the highways and by-ways with Scatterjoy and her party. Songs, music and fun along the way, all among the dales and dells of the country side.

WEDNESDAY.—Mother Hubbard and Uncle Frank with songs and stories for you all.

THURSDAY.—Uncle John with cousins Pat, Victor and Phyllis providing a jolly and happy evening for you.

FRIDAY.—"Storyman" has new stories for the young and old, and the pupils of St. Mary's Convent providing us with songs, choruses and music.

SATURDAY.—"How do you do, Chuckle?" says Aunt Pat. And a merry song and story for one and all, has Mr. Chuckle to-night.

SUNDAY.—Children's Song Service Conducted by the Methodist Sunday School, hymns to be sung by the scholars from the Cambridge Terrace Methodist Sunday School.

AT 4YA.

FRIDAY, MAY 24.—Aunt Shiela tells stories to the bairns to-night,

and Big Brother Bill will be somewhere about, too. Miss Shiela Neilson's pupils will make everybody happy who listen to them.

SATURDAY, MAY 25.—Uncle George will tell stories to-night. You don't know Uncle George? Well, I am surprised. He's just the chap to tell stories to children; a big, comfortable sort of man, with quite the kindest smile.

MONDAY.—Uncle Allan again to-night. And the Salvation Army Home children singing the sort of choruses they have in their institution. They will be worth hearing. Stories, riddles, jokes, the radio postie, and letters; all the sort of thing that makes the children's hour pass like five minutes.

TUESDAY.—Big Brother Bill and the Kaikorai Girl Guides will be together in a happy hour. And Mr. Announcer helping with the riddles. It's going to be good. Letters and the radio postie also.

WEDNESDAY.—Aunt Anita's night has something very special. She will be telling stories, of course, but you will be entertained by the Knox Boys' Orchestra. There's a fellow in the orchestra who can make the merimba-phone sound like a big organ; and he's going to play it to-night. The usual letters and birthdays.

FRIDAY.—Aunt Shiela's night, and the Moray Place School drum and fife band. Drums are quite exciting as a rule, and when the bugles begin to blow the excitement increases. The Moray Place band plays very nicely indeed, as you will agree when you hear them. There will be the usual stories, and birthdays of course.

SATURDAY.—Uncle George with some talented members of our radio family. You ought to listen to this programme. And Uncle George will have something quite interesting for all the "sporting" boys of the family. He will have also the usual letters and birthdays to talk about.

Support N.Z. Industry

A Special Lecture

A SPECIAL lecture is to be given from IYA on the evening of Friday, May 31, at 7.40 p.m., by Mr. W. R. Bagnall. Mr. Bagnall is an old New Zealander, but was for 14 years in the Legislative Assembly of New South Wales, and is speaking on the "National Significance of giving Preference to New Zealand-made Goods and Products."

Mr. Bagnall was instrumental in organising the "Great White Train," which toured for twelve months the whole of the State of New South Wales. This train was completely equipped with goods made in Australia. Mr. Bagnall is a great believer in the principle of New Zealanders supporting their own products, and his lecture will be along those lines. His address is being given in conjunction with others which have been arranged under the auspices of the Auckland Manufacturers' Association.

Baird Co. Finance

THE first report of the Baird Television Development Company is announced by a balance-sheet made up to June 30 last. It does not, however, include a profit and loss account. Against the company's issued and subscribed capital of £124,999 is held, at date of balance-sheet, £61,572 in cash. Patent rights and other interests in inventions stand at £21,092, while development and exploitation expenditure accounted for £24,950. The capital consists of £99,999 in £1 preferred participating ordinary shares, and £25,000 in 1s. deferred shares. Of these 500,000 deferred shares, Baird International Television, Ltd., acquired 300,000, together with one-third share in the foreign and colonial patent rights.

The B.I.T., Ltd., being capitalised at £700,000, Baird Television Development preferred participating ordinary shares changed hands recently at 37s. 6d., and the deferred ordinary at 16s. 6d., while the 5s. "A" shares of the International Company were active at around 11s. 6d.

Radio for the League

RADIO was first used by the League of Nations in 1925, and in 1926 an opening address was sent over long-distance lines from Geneva to Prague and there broadcast. Later, English, Danish, German and French stations joined in broadcasting other important speeches from the meetings. The Dutch short-wave station at Kootwijk, which is often heard in America and other distant parts of the world, was originally designed to carry on radio-telephone experiments with Java.

A Broadcasting Monopoly

AN example of the mischievous results of giving a broadcast concessionaire the monopoly of radio apparatus as well, is provided by the case of Peru, where the station was first opened in June, 1925, by a private company, known as the Peruvian Broadcasting Co. This concern went into liquidation and was bought up by the Peruvian Government, who now hold the broadcasting monopoly.

WHY?

Kingsford Smith uses Burgess Batteries. Commander Byrd uses Burgess. More Burgess Batteries are sold in New Zealand than any other make. Why?

BURGESS RADIO BATTERIES



MAGNAVOX POWER SPEAKERS.

Have a musical richness, and they are the most accurate Radio Reproducers, giving tone without distortion.

"BELVEDERE" DYNAMIC SPEAKER is a beautiful piece of furniture, as well as giving generous volume and richness of tone, all without distortion. **£16/10/-**

THE "BEVERLEY" DYNAMIC SPEAKER, an excellent Table Type Speaker, with a good appearance and tone. **£19**

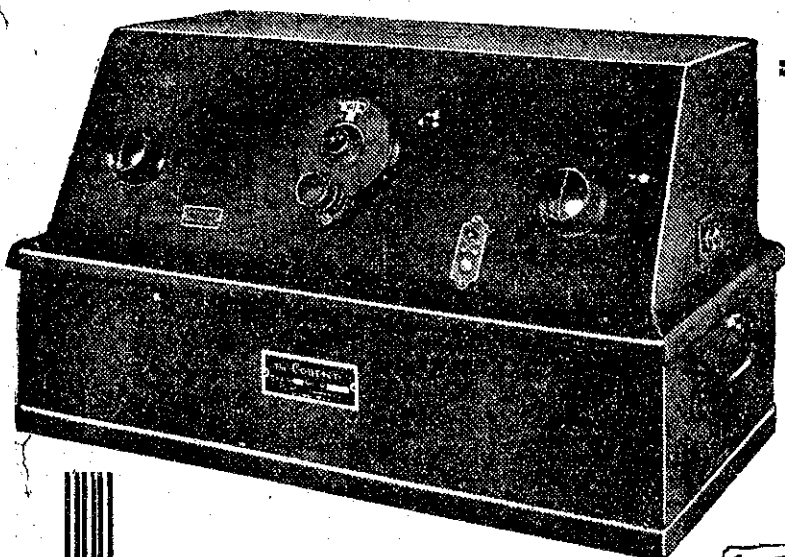
UNITS ready to instal into Cabinets, or on a baffle-board. To work off 230 power. **£12/15/-**

UNIT to work from A Battery. **£8/15/-**

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

63 WILLIS STREET, WELLINGTON.

'Phone 41-466.



MODEL Q.R.3.

Price
Complete **£27/10/-**

Price with Valves Only, **£18/8/-**



*"Brings Tidings
From Afar"*

The NEW . . . COURIER Q.R.3.

A Powerful Selective Receiver—

A High or Low-Wave Receiver—

A Gramophone Amplifier—

A Voice Amplifier—

All these features are combined in the new "Courier Q.R.3" model, as well as many others which go to make this set the outstanding success it has already proved. The "Courier Q.R.3" possesses many unique features, placing it far above many larger and more expensive sets already on the market.

On the point of Power and Selectivity, the "Courier Q.R.3" leaves nothing to be desired. The special circuit employed enables a range of distant stations to be logged that is almost double that of any similar set, while the tuning is so fine that it is possible to cut out local interference altogether when tuned to receive more distant stations. Australian broadcasting is easily tuned in to perfect clarity while local stations are running on full power.

The fact that a mere flick of a switch converts the "Courier Q.R.3" from a high to a low-wave receiver is a unique feature of this remarkable set, enabling the operator to receive from short-wave stations such as Eindhoven, Holland, Schenectady, U.S.A., Surrey, England, etc., with the utmost ease.

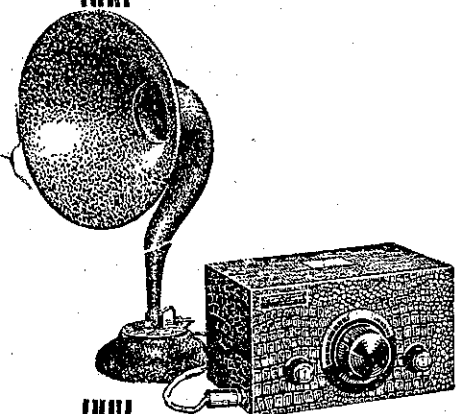
To obtain an amplification of any gramophone record it is merely necessary to plug into the special socket, and tone and volume are increased and improved through the loudspeaker. By inserting a pair of ear-phones into the same socket and speaking into them the operator's voice is similarly amplified. The uses of this amplification are manifold.

Finally, the "Courier Q.R.3" is a compact, strong, portable set at a price which puts it well within the reach of all. Post the coupon below for illustrated leaflet giving full details of the new "Courier" Models.

The Courier Junior

MODEL 3

Only the best quality parts are used throughout this Set, which presents a very attractive appearance in its Brown Crocodile Leatherette Cabinet, measuring 10 1/2 in. x 6 in. high. This set will give loudspeaker reception of Australian and New Zealand stations—performing with astounding efficiency when coupled to a good aerial. Battery consumption is reduced to a minimum, thus the cost of up-keep is next to nothing. Sold only with full accessories. Price Complete, £17/17/-.



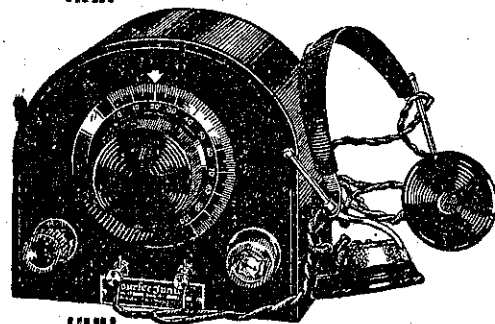
Model 3

THE COURIER JUNIOR

Price
Complete **£17/17/-**

A Valve Set for the Price of a Crystal Set

You can listen in to any station in New Zealand, and, with practice in tuning, Australian stations too—on this One-Valve Set. For the country dweller who is debarred from the use of a crystal set, and does not wish to make any great outlay for his Radio, this set is just the thing. Cheap to run. Sold complete with accessories only. Price Complete, £5/5/-.



Model 1, THE COURIER JUNIOR

Price
Complete **£5/5/-**

Wholesale Only from the Manufacturers:

J. WISEMAN & SONS LTD.
ALBERT STREET, AUCKLAND.

Post this Coupon To-day

MESSRS. J. WISEMAN AND SONS, LTD.,
Albert Street, Auckland.

Please send me your leaflet on
"Courier" Receivers.

NAME

ADDRESS

Notes and Comments

By
"SWITCH"

THE recent concert by the Wellington City Silver Band was a consummate success as heard from 2YA, Wellington. The items were well selected, and the placing of the microphone gave splendid balance to the band, which performed brilliantly.

PROBABLY a record broadcast feat was accomplished by the member of the visiting J. C. Williamson "Patsy" Company at 2YA, Wellington, last week. He sang no fewer than a dozen popular songs without five seconds intermission. "Switch" believes this is a record for New Zealand at all events.

"SWITCH" was lately asked to listen to a test of a home-made exponential horn built according to scientifically drawn up specifications published in an overseas magazine. While the volume was great the tone was indifferent. A close examination showed that the loudspeaker unit was of a cheap brand. Unless a first-class unit is employed the best results cannot be obtained even from a perfectly constructed exponential.

"L. J." (Hataitai) asks "Switch" to publish the following suggestion: "I think 2YA, Wellington, would delight a large number of listeners if the week's most popular song record were put on the air at a definite schedule time, say, just after the 9 o'clock weather forecast. This has been the prac-

tice at 3LO, Melbourne, for many months. No difficulty would be experienced in selecting the record, for this is already done by the gramophone people themselves."

THE gramophone records put on during the children's sessions of 2YA, Wellington, are well chosen, and one of these lately was the orchestral record in which various instruments simulated laughter. In a certain household this record was voted the best put on for several months. If the number of grown-ups who enjoy the kiddies' sessions could be mustered they would present quite an army.

A HIGHLY commendable idea lately introduced during the children's sessions of 2YA, Wellington, is the announcing of the ages of the juvenile performers. Besides adding interest to the items it occasions a certain amount of rivalry among the children listeners and encouraging talent to come forward. Some curiosity is expressed as to the reason why the full names of the young performers are not announced. "Little John" and "Little Betty" do not satisfy the curiosity of listeners.

THE broadcasting of the gramophone records of the opera "Rigoletto" was much enjoyed by many of "Switch's" acquaintances. They are looking forward to the early broadcasting of another opera.

A WELLINGTON College youth recently exchanged a puppy, with a pedigree, for a one-valve receiver. Let us hope he has not exchanged one type of howler for another.

OCCASIONALLY it occurs to novices that radio editors are sitting waiting for work. A Sydney correspondent recently sent the following cool request to the Sydney "Wireless Weekly":—"Kindly send me a few lay-outs for a number of selective crystal sets for receiving Broadcasters. I am living only half a mile from Farmer's transmitting station." Answer: "Righto. See below." And underneath was published seven bars of music!

HOWLING valves have been known by "Switch" to spoil the sales of sets, thus incurring a loss to the trade, a loss to the Post and Telegraph Department, a loss to the Broadcasting Company, and, in a measure, a loss to all listeners, for broadcasting is a community affair. The more listeners there are the greater the sum of money available for the programmes. Perhaps arrangements could be made for a five minutes' talk from 2YA, Wellington, by an expert who could explain in simple, untechnical language how listeners could ascertain when they are creating interference and the method of avoiding same.

THE howling valve nuisance which has been almost quiescent around Wellington for several weeks, broke out with great virulence during the recent spell of poor reception from

Australia. Two or three listeners close to the city have a knack of raising a howl which would almost awaken the dead. They never test to ascertain whether they are creating interference; if they tapped their aerial terminal with a moistened finger they would hear a loud click from their loudspeaker. This test would also be heard by other listeners, but their howls never indicate any attempt at the test suggested.

RECEPTION of the Australian stations by Wellington listeners during the recent prolonged southerly gale was extremely unsatisfactory. Fading was intense, and none of the Australians were exempt. Static was lively, and there was a general weakness of long-distance reception. A peculiarity of reception of 2BL, Sydney, was the decree in volume from the early evening sessions onward. Some evenings the "dinner music" was twice as loud as the subsequent evening concert music. This is the reverse of what one should expect.

A WELLINGTON listener commented to "Switch" upon the poor reception recently, and his difficulty in hearing either 1YA, Auckland, or 3YA, Christchurch, while even 2YA, Wellington, had dropped considerably in volume. As this was not in accord with "Switch's" experience he advised his friend to have his equipment tested. This advice was followed, and a coil in the loudspeaker was found to be burnt out. The experience of this listener may assist others.

A NOVICE queried "Switch" as to the advisability of purchasing a celluloid "A" battery, as he had seen one froth so badly as to cause the loss of a considerable quantity of the liquid. The explanation given to the inquirer was that some celluloid batteries develop this fault after a little while, owing to some unsuitable ingredient being embodied in the celluloid, but this does not apply to all makes. The better type of celluloid batteries can be relied upon not to froth. The celluloid being transparent enables one to view the plates and thus ascertain their condition.

"SWITCH" has a compliment to pay to Mr. Walpole for his impersonation of Milton Hayes, the original Monty of "The Meanderings of Monty," known the world over per medium of gramophone records. Listening to 2YA, Wellington, the other night the writer heard "Monty Addresses the Board of Directors," and thought he was being entertained by a record of Milton Hayes himself. It was only on consulting the printed programme that "Switch" discovered the item was mimicry by Mr. Walpole. Thorough merit was stamped on every syllable.

THE recent southerly gale at Wellington left a trail of fallen radio masts. Many of the masts around the city are of the broomstick order and are badly stayed. Any old thing seems to be good enough, according to some

listeners, and they realise their folly when the wind takes toll of their masts.

A WELLINGTON listener who operates a portable set was surprised the other day when he found he could receive 2YA, Wellington, louder ten miles away than when he had the set in his office in the city. He came to "Switch" for an explanation. This was not a difficult problem to solve. His office in a steel-framed building, and the metalwork acts as a most effective screen. A demonstration proved the truth of this. The set was taken to a window, and it performed splendidly, but when placed well inside the office reception dropped badly.

THE introduction of broadcast listening into colleges is steadily proceeding. The parents of an up-country girls' college in the Wellington radio district are about to instal an all-electric set for the girls. These A.C. sets possess a distinct advantage over the battery sets for such purposes, as they are so easy to manipulate, and the latest models are remarkably efficient.

A CRYSTAL set user has asked "Switch" why he recommends a loudspeaker with a large horn for reproduction from a crystal set in preference to a diminutive loudspeaker with a small horn. He thought that the less inertia to be overcome in the diaphragm of a small speaker would contribute to louder reproduction. The conservation of sound through the use of the larger horn, however, more than compensates for the greater amount of inertia of a larger diaphragm. A test with a small and a large loudspeaker of the horn type will immediately prove which gives the better results.

"SWITCH" regards our New Zealand announcers as generally superior, on the whole, to the Australian announcers, although there are individual cases across the Tasman which excel our men in some characteristic. There are several attributes which go to make a first-class announcer. A man with a good quality of voice may have indifferent intonation, he may pronounce badly, or he may announce disjointedly, as some of the Australians are prone to do. Some announcers enunciate badly, although gifted with a good voice. Some speak too slowly, and over meticulously, as in the case of a certain Queensland microphone man.

A WELLINGTON listener has drawn "Switch's" attention to the hesitating manner of some of the leading Australian announcers, who, he contends, are inferior to the New Zealand announcers. Taking careful note, "Switch" has discovered that the men across the Tasman hesitate a great deal when they are mentioning the items and the performers. They appear to have some difficulty in deciphering the written names in front of them. This is the impression created, but is not meant as an explanation of the peculiar pauses.

HAVE YOU READ IT?

Thousands of New Zealanders have read the little illustrated booklet, "Your Estate," and have been led thereby to a wise decision in respect to the making of a Will and the selection of a Trustee.

"Where there's a will there's a way"

to carry out your wishes; where there's NO will, there's NO way to carry out your personal desires as to the disposal of your Estate.

Do not let 1929 get any older without making a Will and selecting the safest Trustee. In the meantime, apply to-day for a copy of "Your Estate," obtainable from any office or agent of the Public Trustee, or free by post from the Public Trustee, Wellington.

In Brief.

H. MITCHELL (Wanganui).—Your queries are answered in "Notes on 'B' Eliminator Construction." Any further difficulties, please write. Stalloy can be obtained from National Electrical Engineers, Wellington, and Johns, Ltd., Auckland.

Coil Specifications.

R. GARDINER (Denniston).—As accurately as can be mathematically calculated, the tuning ranges of your coils are:—

1. 12 to 18 metres.
2. 20 to 35 metres.
3. 35 to 55 metres.
4. 55 to 80 metres.

The coils appear to be designed to cover the band 12-80 metres, and it is likely that the gap between 18-20 metres does not occur in actual practice.

Regeneration and coil capacity have to be considered and to arrive at an exact range would involve a great deal of work. These have not been considered, but practice will show the precise range of the coils.

The correspondent asks for a good make of condenser. The capacity he is using, .0001, is quite good. He could not better it. It should be smoothly operating and the moving plates should be connected to the frame by a rat-tail connection.

"Could I use two 30 ohm. rheostats, one for the detector and the other for the amplifier?"—Yes, quite well.

Odd Points.

N.Z.R. (Otahuhu) asks the following:—

1. I used to be able to log 4QG; now I cannot get a whistle on his wave length.

A. Has the detector voltage dropped? Try raising it a little. However, natural conditions may be causing weakness of 4QG. Strange phenomena happen and cannot be accounted for.

2. I am using A 409 as detector and B 406 as audios in my three-valve set. Can you recommend better values?

A. If you desire Philips, try A 415 detector, A 409 first audio and B 406 second audio.

3. I am using 90 volts "B," 9 volts "C." Is that right?

A. The audio voltages could be increased, but the detector should be kept low—22½-45. Grid bias is O.K.

4. Should the stay wires of aerial poles be insulated? Both poles are galvanised iron.

A. It would be advisable, but not essential. Providing the aerial is well insulated from both wires and pipe, the aerial should function well.

5. Why is it that Wellington fades so badly up here; more so than any other station?

Questions and Answers

A. This is a peculiar phenomenon, depending on your locality. It is difficult, if not impossible, to explain.

Eliminator on Shortwave.

"X" (Palmerston North) has a broadcast receiver using a B battery eliminator. He inquires whether a shortwave adapter could be used without discarding it.

A.: The accepted idea is that a battery eliminator cannot be used on shortwaves, but recent investigation has shown this, in many cases, to be fallacious. In fact, some very good results have been claimed by using an eliminator on shortwave. We should like to hear the results obtained by this correspondent.

The A Battery Charger.

"W.J.B." (Morrinsville) asks the following questions re the A battery charger described in the Guide:

1. Is a Philips 828 valve suitable as a rectifier?—Yes.

2. What must I order for a resistance valve?

A.: If Philips, 329.

3. What amperage fuse would be necessary instead of tinfoil?

A.: Ordinary electric light fuse with a carrying capacity of three amps.

Eliminator Output.

A CORRESPONDENT from Reefton, "A.E.E.", has an eliminator deriving its power from an input of 230 volts D.C. He cannot test the output voltage except by a milliammeter, which reads 12. He asks if he can calculate from this the proper voltage output.

A.: It would be possible, only if the resistance of the circuit were known, and this would be very difficult to obtain. The only possibility of measuring the output is by a voltmeter.

Oscillation Troubles.

"PUZZLED" (Auckland), who is operating a two-valve set, is wondering why, when the dials reach a certain point oscillation starts. When the reaction plates are full in the stations come in distorted. As soon as they are turned out a little the reaction goes out with a plop.

A.: This is no more than to be expected. When the plates are turned beyond a certain point, oscillation starts, and a receiver in this state will give distant stations, but they are so distorted that they are almost indistinguishable. Furthermore, when a receiver is in this state it is annoying neighbours. The trouble appears to be that the correspondent is trying to bring in more stations than his set is capable. He should read our article on oscillation control in an issue or so back.

The 2-R.F. Browning-Drake.

"BUG," of Wanganui, asks if it would be possible to publish a circuit of the 2-R.F. Browning-Drake, using two only variable condensers and rheostats. He wants, at least, a diagram using as few dials as possible.

A.: It would be almost impossible to reduce the 2-R.F. Browning-Drake to a two-dial control receiver without losing some of its efficiency, that is, if by dials, is understood dials and condensers. The three condensers could

be ganged as suggested in the description of the adapted screen grid Browning-Drake, but it is feared that by doing this some of the efficiency would be lost. This would be the only way possible to reduce the number of dials, unless rheostats were replaced by fixed resistances, e.g., amperites.

License Restrictions.

"F.R.B." (Petone) writes: "We have two radio sets, and we desire to work both from separate places in the house. Can we use two leads-in from the same aerial, which method I believe is not very good? Could you suggest any other method?"

A.: So long as both sets are owned by the same family there is no restriction on the number that any one family may own and operate for the one license. It seems in this case that the only possible solution, unless of course another aerial some considerable distance from the existing aerial can be erected, is to run two leads.

The Adapted S. G. Browning-Drake.

A CORRESPONDENT, "R.F." (Te Kuiti) writes concerning the adapted screen-grid Browning-Drake described in the "Listeners' Guide." He asks if a factory-made set of Browning-Drake coils can be used.

A.: It was because of this that the S.G. set received the name, "adapted Browning-Drake." These coils, whether factory or home-made, can be used for the screen-grid set by disregarding the slot wound primary.

Obtaining Stalloy.

"A.F.B." (Wellington), asks where stalloy steel cut to strips can be obtained in Wellington. He should try the National Electric Engineering Co., Ltd., Customhouse Quay, Wellington. If difficulty is encountered, Johns Limited, Auckland, will be able to supply it.

The Pentode Valve.

THE following questions relative to the pentode are asked by "Pentode" (Havelock North):

1. Which is the better power valve: UX 171A or UX 171?

A.: UX 171A is the later type and has replaced the 171 valve. In referring to valves we quote frequently state 171, inferring 171A.

2.: Could a "Cossor" Pentode as mentioned in the "Listeners' Guide" be used as a power valve? If so, what resistance would I have to use, the other filaments being lit by a 6-volt accumulator? This valve requires 2 volts on the filament and consumes .3 of an ampere.

A.: It can be quite well used as a power valve with the 20 ohm rheostat controlling the filament. This is possible because of the high filament consumption, but great care must be taken

not to advance the rheostat far, because the voltage rises rapidly. The best plan would be to put a fixed resistance of 15 ohms in series with the filament negative. This would prevent any chance of such an occurrence happening.

3. I use 150 volts "B" battery. Would this be quite sufficient if using the pentode.

A.: Yes, but the filament consumption is rather high for anything but super-size dry batteries.

4. Would the change to the pentode be any advantage in regard to tone and volume?

A.: It is claimed that the pentode increases tone and volume remarkably, but we have not tested one, so that we are not in a position to state the case authoritatively.

The Size of a Coil.

"C.C." (Wellington) states that he is using a crystal set and amplifier, the coil of which comprises 90 turns of 22 gauge wire, but the strongest signals are heard when the condenser plates are full out. He concludes he would require more turns, and proposes rewiring with 24 gauge wire, and wants to know the number of turns.

A.: The correspondent is wrong in his conclusion. He requires less turns. He would find by reducing his coil that his signals would come in stronger. Sufficient turns should be taken off to bring in the loud signals at about 50 on the dial. The optimum number is considered to be about 40 turns of 22 gauge or 37 turns of 24 gauge on a 3-inch former, though the writer has found that 33 turns of 22 gauge close-wound cotton-covered on a 3-inch former brings in 2YA from the centre of the dial. A conversion wire table is found in the reference section of "Guide." This would have answered the question.

2. Would putting an additional 45 volts on the plate of the amplifier (UX 199) increase volume?

A.: It should do if the circuit is O.K.

"Guide" Crystal Circuit.

"M.P.S." (Auckland) asks regarding the crystal circuits in the "Listeners' Guide":—

1. Will any variable condenser do for the crystal circuits on page 22?

A.: .0005 or .00035 would be quite satisfactory, though smaller capacity variable condensers could be used if only one station was to be tuned and some experimenting as to the length of the coil were done.

2. Regarding the circuit on page 23 (the full-wave), must the condensers be .0005 and would not one detector do in place of two?

A.: .00035 could be used, but to obtain the full-wave effect two detectors must be used in a suitable circuit such as that described.

3. On page 171 of the "Guide" is a circuit of a combined wave-trap, crystal set and detector for multi-valve set. Would a slider do to replace the tapped coil?—Yes.

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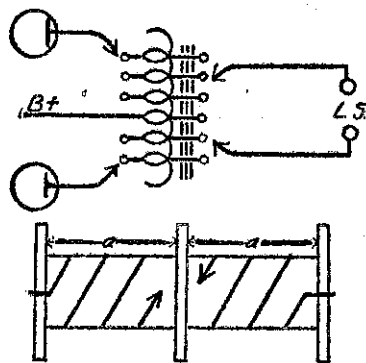
Authorised Chevrolet Station.

ping it so that it can be used to step up or down as per diagram 1.

As I suppose that each half would require to be about 25 henries I propose to use a $1\frac{1}{2} \times 1\frac{1}{2}$ core with 12,000 turns.

This, with 36 wire, should give the value easily. Now, it appears to me that, to get the centre tap in the electrical centre, and to facilitate equal proportions in the intermediate tapings, that it would be desirable to wind the coil in two halves, on a spool as per diagram 2.

Of course I realise that the widths "A" would have to be exactly equal



and the pair of windings equal in all finished dimensions.

This is preferable to one continuous winding on one spool with a centre tap taken out at half the number of turns. I would wish to start the windings at the outside faces of the double spool, and I come up against the elementary difficulty that I cannot decide if both coils should turn the same way.

[The diagram shows the correct method which may be applied to eliminator windings.]

This choke will be used as an ordinary output choke in the meantime; using one-half or both in series or parallel according to 25, 50, or 124 henries, seems to give the best results and is occasioned by the commercial choke I am using being quite inadequate for its work.

My present idea is to work up to two screen-grid stages, an R.C. valve as anode bend detector, with resistance coupling to first audio, then the AFS and a B403, later, converting the last stage to push-pull by halving the AFS secondary externally by means of two grid leaks.

P.H.I. Schedule

PHILIPS Station, PH1, transmits from Holland as under:—

Wednesday, May 15—11.30 p.m. to 3.30 a.m.

Thursday, May 16—10.30 p.m. to 3.30 a.m.

Friday, May 17—11.30 p.m. to 3.30 a.m.

New Zealand time; wavelength 16.88 metres.

BEFORE installing a B eliminator, make absolutely certain that the aerial switch to earth is in good working order, and does not under any circumstances switch over the aerial coil to earth. (With this the mains can be shorted just as badly as though there was no condenser in the earth lead.)

Modern Methods of Successful Long Distance Musical Reproduction

The Equipment of the Majestic Theatre

THE march of radio, coupled with that of musical reproduction, is clearly indicated in the modern methods employed in the new "Majestic" Theatre, Wellington. This theatre has been recently completed, and as far as the equipment is concerned, neither skill nor expense has been spared to produce the last word in luxury and comfort.

In accordance with the idea of modern reproduction, the appointments are noteworthy. Within a fortnight the apparatus for sound motion pictures will be installed, but at the present time music is being supplied by one of the most brilliant combinations of musicians in New Zealand. That they are under the baton of Mr. George Ellwood, the distinguished 'cellist known from 2YA is sufficient proof of this.

Directly connected with the theatre is the tea and supper-room with its glass dancing floor and tor lighting effects. Of interest to radio enthusiasts is the equipment to provide this room with music. This is obtained from three distinct sources: from 2YA, from a gramophone, and from the orchestra when it is playing in the main theatre. From 2YA the programme is picked up by an aerial on the top of the building and passed to a crystal detector at the control point in the lounge. Here is located a power amplifier, comprising two 281 rectifiers, two 250's in push-pull, and two 227's. This amplifier is capable of strengthening up the output to enormous proportions, so that the question of volume control becomes a difficult one. A small, easily operated switching device at this point controls the electric gramophone and the relay from the theatre.

During the evening session, when the orchestra is performing, the music is picked up by a microphone and relayed to the distribution point in the refreshment room. It is then, in the output from the gramophone and crystal set, passed to the power amplifier. From the power amplifier leads are connected with two "Epoch" moving coil loud-speakers, which are situated on the upper floor of the room. These are so neatly designed that from the lower floor they are hard to discern, and it is almost impossible to tell from whence comes the music—yet it comes, and fills the whole atmosphere. It can be toned to a whisper, or can fill the whole room with volume.

Technically, the reproduction is perfect. A slight variation from the usual moving-coil loud-speakers has been made in that they are of the high resistance type. Because of this, the over-all reproduction is very even and everything is perfectly natural, as though an orchestra were playing in the room. Indeed, it is better than this, for very few orchestras could so approach those whose recordings are played through the gramophone.

The equipment of this theatre is merely an indication of the future attainments of musical reproduction, and

IN view of the backwardness of British attempts at wireless telephony to Australia, the Australian Press Association invited Dr. Koomans, chief of the Dutch Radio Laboratory, to indicate the factors of success in the repeated Dutch conversations between Holland and Java, and between Holland and Sydney. Dr. Koomans says his station used a directional beam with wavelengths of 18.4 and 38.8 metres, and a power of thirty-two kilowatts. Recently outstanding success had been achieved in the daytime with a new transmitter on 16.3 metres. There was no fading on any of the wavelengths, and no atmospheric conditions on the two lower ones. He admits that it is virtually impossible for the Dutch station to get efficient communication at night.

It is safe to assume that before very long radio, as usually interpreted, with amplification methods which are inseparably bound up with it, will be universally employed whenever music is to be faithfully reproduced.

Dynamic Speakers

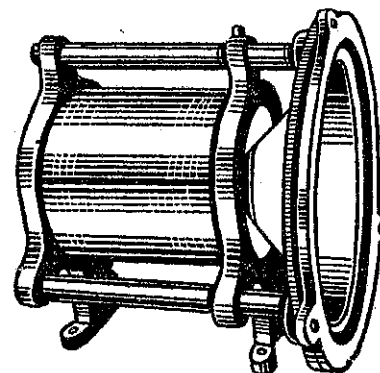
THE terms "dynamic speaker," "moving coil," and so on are used rather indiscriminately in this country and evidently also in the United States, for I notice, states a writer to "Modern Wireless," that the U.S. Radio Manufacturers' Association has now adopted a definition of the term "dynamic speaker" as follows:

"A dynamic speaker is one in which a portion of the conductor carrying the alternating signal current is a part of the moving system, the force producing the motion being due to the location of this conductor in a magnetic field."

The U.S. R.M.A.

THIS definition was adopted by the Radio Manufacturers' Association at a meeting held in Chicago at the end of the year. It will be seen from the definition that it includes what we call a "moving coil" speaker, as well as one in which an iron armature is used having a winding around the armature which carries the speech current or some portion of it. It is just as well that this definition should have been adopted, although it seems that the term "dynamic speaker" should really cover any type of speaker in which, for instance, a diaphragm or an iron armature was used.

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Various Methods of Checking Local Interference



LL interference of this nature has one fundamental cause; its nature is an inductive interference, the unwanted current being induced into the antenna circuit of the receiving set from a neighbouring source.

The arc lamp is virtually a gigantic spark passing across two electrodes, and being such it broadcasts electrical waves of interference. The waves, however, are not all of the same wavelength or frequency. In fact, an arc, like every other form of spark, generates interference over a very extended wavelength band, and thus it becomes almost impossible to tune the interference out by means of a wave-trap or rejector circuit. The elimination of unwanted local interference, however, is a pressing problem to many a keen radio enthusiast. Many homes, in the vicinity of tramway systems, are unable to enjoy reception during certain periods, though it must be placed to the credit of the Post and Telegraph Department that much of this type of interference has been tracked down and eliminated.

There is really a great deal of the element of luck in the elimination of "man-made static," for in very many instances the source cannot be found, and, if found, not permanently overcome. In such cases as these it is a matter of putting up with it and making whatever alterations in the receiv-

Man-made Static and Its Elimination

ing set that may suggest themselves or be suggested.

Reducing the Trouble.

FIRST consider the interference created by an electric generating station or of a motor or alternator working in some adjacent factory. Some alleviation of the trouble set up by this type of interference can be effected by making a series of trials with aerials in different positions. Try, for instance, to find out the exact lie of the source of the interference, and then erect the aerial as nearly at right angles to it as possible.

If the generators are situated on the ground floor or in the basement of the factory, endeavour to erect the aerial as high and as long as possible. On the other hand if the interference is situated on one of the upper floors of a building, then a lower and shorter aerial will succeed in reducing the trouble.

The same applies to interference derived from tramway wires, high-tension wires and so on. If the aerial can be erected a good height above these lines it is above the interference and a reduction of noise should result. Generally, however, the lines are the higher and the best solution is to have a short, low aerial at right angles to

the interfering lines. By this arrangement the sensitivity of the system will be reduced, but this usually is to be preferred to the distracting noise.

Another method of overcoming the problem is to erect the aerial in the most favourable position as described above and then to provide some leakage path for any of the interfering currents that may still be present.

For instance, a few inches of the aerial lead-in may be wrapped round with a layer of rubber tape, on top of which may be wound several turns of wire, the free end of this wire being earthed. In this manner the interfering current impulses may be carried away to earth, the greater bulk of the currents received from the broadcasting station being passed on to the set.

Faint generator hum due to the continual presence of some electrical machine situated a little distance away from the receiving installation generally may be cured by the simple expedient of connecting a 6ft. length of bare wire to the earth terminal of the set and by allowing the free end of the wire to dangle on the floor. In this case, also, the unwanted interference is led away to earth.

Effect of a Series Condenser.

A SERIES condenser may or may not help. It should be tried. A condenser in parallel will most certainly reduce the interference, but at the same time signal strength will suffer.

A flashing sign will probably give endless trouble owing to the constant series of clicks which it will create during reception, such noises being due to the moving contacts which operate the sign. A 2 mfd. condenser should be placed across the contact leads, and all will be well. If, however, such an arrangement is not possible, the interference will have to be treated on the lines suggested above.

A great deal of local interference may be eliminated by lining the inner sides and the base of the radio set cabinet with tinfoil or silver paper, and by connecting this metallic lining to the earth terminal of the set, the relatively feeble interference currents being filtered off to earth in this manner.

If the interference is very bad and persistent it would be as well to construct a rough frame antenna.

The use of an underground antenna provides a very good method of getting rid of interference, and it is really a matter for surprise that this expedient is not more often resorted to. An underground aerial can be constructed by enclosing a length of aerial wire in a good thick rubber hosepipe and by burying this in the ground at a depth of three or four feet.

This system of antenna construction is popular in America as an interference preventer. The underground antenna should be as long as possible, certainly not shorter than 20 feet, and it is very important that the antenna

wire itself should be insulated from the earth. It is, therefore, necessary to run it along the centre of a rubber tube, and, if the best results are required, the tube should also be enclosed in a leaden pipe in order to protect it against the deteriorating influence of the ground moisture.

Thus it will be seen that an effective underground antenna forms a rather expensive article, and that its construction implies the necessity of having available a good stretch of land. However, when these conditions permit, the underground type of antenna is certainly one which is worth trying out, for it will be found to eliminate interference entirely.

The use of screening methods in modern set construction has done a great deal towards the reduction of common types of local interference. At the same time, however, it must still be emphasised that the adequate dealing with annoying problems of this nature necessitates the use of a loosely-coupled aerial circuit, together with some means of very sharply tuning the remainder of the circuit. Due attention to these factors, however, combined with a similar careful scrutiny of the position and construction of the aerial will, however, produce the desired result in the way of eliminating the interference.

A Counterpoise Earth.

FINALLY, in dealing with interference troubles of the nature described above, the properties of a counterpoise earth should be tried out in actual practice. One can easily make such an earth by placing a kitchen fender across two chairs, and by connecting the earth lead of the set to it.

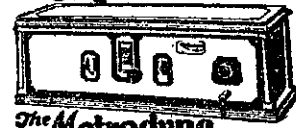
The counterpoise should preferably be placed directly under the aerial, but, even when this is not possible, a trial of this nature will indicate how far the use of a counterpoise will be of advantage in any particular case. In most cases a decided advantage will be found to accrue from its use, and, therefore, having made a few preliminary experiments, a permanent counterpoise earth can be constructed and erected in some convenient position.

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Notes on "B" Eliminator Construction

Bias, Resistances, Chokes and Filament Heating

By "MEGOHM"



WITHOUT a doubt, "B" battery eliminators have come to stay. In striving for quality, the key-note of modern radio, the adoption of mains-produced plate supply is a good first step. Even with a crystal and two-valve amplifier, the adoption of a simple half-wave "B" eliminator will often effect a remarkable improvement in quality of reproduction compared with that produced from dry batteries, especially when the temptation is present to run the latter after the inevitable drop in voltage that should cause them to be discarded.

Radio dealers now stock many of the components required for "B" eliminators and when all these are purchased ready-made, the connecting up is a comparatively simple matter.

The new "Listeners' Guide" deals fairly exhaustively with eliminator construction, but a few hints regarding details will be of interest to constructors.

Dissipation of Resistances.

IT is usual to take the full voltage of the eliminator to feed the plate of the power-valve. This voltage may be between 100 and 400, 150 to 200 being the usual, and suiting the average receiver with a smaller power-valve in the last stage. This maximum voltage of the eliminator then has to be reduced to suit each of the other separate stages, early audio, detector, and radio-frequency. In general use there are two methods of effecting this reduction.

The first is to provide each of the three outputs with a separate resistance, variable or fixed, and the second method is to connect "B" positive and "B" negative by means of a continuous high resistance ranging of between 12,000 and 30,000 ohms, the various voltages being tapped off at different points calculated to give the required voltage, which decreases gradually until "B" negative is reached, where the voltage is zero.

If it is proposed to obtain grid bias by the latter system, a suitable amount of resistance is continued past the B negative point, and the grid-bias values are tapped from suitable positions. These points are usually variable along this portion of resistance. It is not always an easy matter for the amateur constructor to obtain entire grid-bias in this way without the slightest trace of hum, and many prefer to obtain the power-valve bias only, providing lower voltages from the dry "C" battery.

One of the objects of this paragraph is to point out that when a bias resistance is used in this way, it is to be remembered that the whole of the plate current of the power-valve returns to "B" negative through the bias resistance, so that the latter must be of higher current rating than might be considered necessary. Where the last valve is a small power-valve, taking only four or five milliamperes on the plate, the ordinary composition variable resistance turned for the purpose into potentiometers, may be used. Where the plate of the power-valve draws 15 to 20 mls. or more, resistance that will not soon disintegrate

must be provided, with the comparatively heavy current flowing. For this purpose a pair of 400ohm. potentiometers, with their resistances placed in series, and the arms each providing a separate bias voltage, will be found admirably suited. Wire-wound resistances, in series, may be added to make up the required total, but these should be of high rating, 30 to 50 watts dissipation, otherwise they will heat and soon burn out.

Breaking Down the Voltage.

SIMILAR high rating is required in the resistances used to reduce the maximum voltage to 90 volts, when 100 to 250 volts are to be dropped. The best type of resistance to use in this position is the Ward-Leonard type of fixed resistance, consisting of a wire winding embedded in vitreous clay and capable of heating to a high temperature without damage. These resistances dissipate 44 watts, and are obtainable in the following values in ohms: 1500, 2000, 2500, 3000, 3500, 4000, 5000, 10,000, 15,000 and higher values to 100,000.

A handy method of mounting these resistances is shown in a diagram, short lengths of 14's copper wire being inserted in a strip of wood, the resistances standing upright, thus occupying minimum space. The wire connections are cut short, leaving about one inch to connect in series.

The actual potentiometer or voltage divider may be purchased ready-made with a system of tappings provided, and where the maximum voltage for the power valve is greater than that which the potentiometer is constructed to deal with, extra resistance may be added between it and "B" positive power in accordance with the table on page 69 of the "Guide."

Between 90 volts and "B" negative a resistance of low dissipation, as low as 5 watts, may be used, as the current carried by this portion is only a few mls at the higher end, and less still at "B" negative. In this portion variable composition resistances may be employed, high values for separate outputs, or lower values if connected in series to form a voltage divider.

Variable Resistances as Potentiometers.

BUILDERS of eliminators who wish to make up their voltage divider will find it an easy matter to alter a variable resistance so that it will connect up as a potentiometer—that is, with a connection to each end of the resistance and a third connection to the rotating arm.

Some variable resistances now on the market are made with a view to being so altered, and each end of the resistance strip is connected to a terminal bolt. The arm is also connected to one end of the resistance by a strip of metal which is to be liber-

ated from contact with the resistance and secured by a bolt passed through a hole already provided in the bakelite body between the two resistance terminals.

Transformer Construction.

THE one-inch core transformer is in every way quite suitable for an eliminator, and has the advantage of being compact, standing 5in. high in a floor space 4½in. x 2½in. This transformer is as large as is usually provided in commercial eliminators to supply as much as 350 volts full-wave. The only consideration is that thin gauges of wire must be used in order to economise space.

The length of the spool is to be 2½in. inside, and the size of "window" will be about 2 13-16 x 13-16in. The primary winding of 1850 turns may be of 30's or 32's s.w.g. enamelled, occupying 13 or 11 layers respectively, 150 or 180 turns per layer. Next follows the filament winding, which should be put on whether required or not, to act as an electrostatic shield between primary and secondary. If not required for filament heating, one end is connected to earth and the other coiled up and insulated. Double cotton-covered 22's will carry one ampere, and the necessary 53 turns for 6 volts will occupy nearly a layer. A centre-tap is provided at the twenty-seventh turn in case a potentiometer is provided outside across leads. A secondary winding giving 200 volts in each half is well suited to the average receiver, as when

rectified and smoothed, will give a maximum of 150 to 160 volts. The secondary winding of 3700 turns is made continuous, occupying 15 layers, about 250 turns of 36's wire on each layer. The centre-tap is taken out half way at the 1850th turn. Half a pound of 36's enamelled wire will be required, and the same weight of primary wire.

For an eliminator it is very important that the stalloo laminations are tightly held, so that there may be no mechanical hum. They must be packed as tightly as possible inside the spool without cutting the interior of it with sharp edges or corners. The last two or three strips pushed in should have the entering corners rounded off, and should be placed under the top strip, so that there will be no chance of cutting the spool. As a final tightener, two 4½in. strips slightly narrower than the rest, should be hammered in separately near the centre of the core after the clamps have been lightly screwed up.

In sizes above the one-inch core there may be a considerable amount of "spring," depending to some extent upon the flatness or otherwise of the stalloo, and it is a good plan to make a small allowance for this by building the core a little over size, increasing the size of the former accordingly in one direction, say, 1-8in. for the 1½in. core, and up to ½in. in the larger sizes.

It will be found that when the clamps are tightly screwed up, the size will be very near that required, and there will be full compensation for shellacing that may be thicker than necessary, and for uneven cutting and consequent gaps at the joins of laminations. Any core is better built slightly over size than under. The small iron belts used by coachbuilders may be used to secure clamps.

The total cost of this transformer, including wire, 2 dozen 8ft. lengths of

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stallo, panel, clamps, etc., as described in the "Guide," should not exceed 18s.

Sometimes spool ends are dispensed with, and a square cardboard tube made to fit not too tightly over the former, and on this the layers are wound. When complete, the ends are covered with a mixture of equal parts of resin and beeswax melted together for pouring. The composition off the tops of old dry batteries may be used.

Heating Valve Filaments with A.C.

THE filament of any valve heated by alternating current must be protected from any voltage in excess of the stipulated maximum. This applies to both ordinary power-valves and alternating-current valves. The danger to filaments is caused by variations in mains voltage at different times during the day, and by "surges" of short duration at any time. The usual method of making as much provision as possible against such variations is to always keep some reserve in the filament voltage by running a reasonable amount below the maximum. A ten per cent. rise in 230-volt mains, though rare, is possible, and would mean an increase of about half a volt on a 5 or 6-volt filament, so that a half-volt reserve may be considered fairly safe on a power-valve.

Alternating-current valves cannot always be run with this amount of reserve, and some means is usually provided whereby the input voltage to the filament transformer can be regulated to suit the line voltage. One method employs a small auxiliary auto-transformer with variable tapplings, whilst another uses a variable power rheostat of suitable resistance in one of the mains leads. The actual value of such resistance is governed by the mains voltage and the amount of current drawn by the receiver.

Another method easily carried out is to put additional turns on the transformer primary beyond the specified number. On the 14-in. core 150 extra turns could be added, taping at every 25 turns, each tap covering a rise in the mains of 5 volts, a switch providing easy regulation.

This principle of additional primary turns can be used on eliminator experimental transformers, giving an extra means of varying the output by a small amount, or adjusting to suit particular conditions. Very often the specified turns leave room for 50 or 60 turns to complete the last layer, and this space can be wound in, with a tap at the specified number.

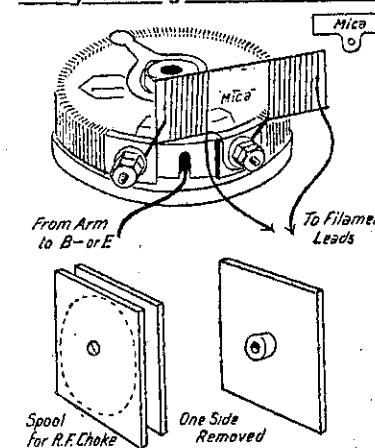
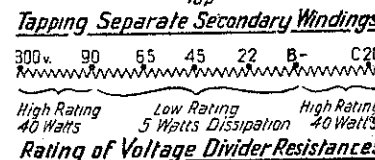
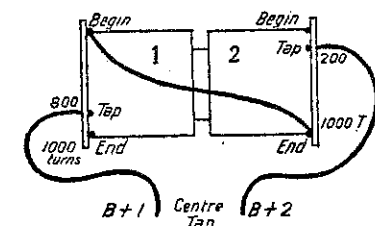
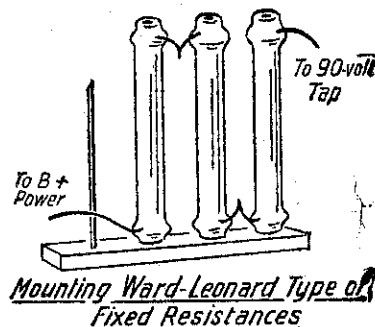
Tappings on Separate Secondaries.

WHEN the two secondary coils of a transformer are wound as a continuous coil with a centre tap halfway, tapplings are taken out, if required, near the beginning and end of the coil, and present little difficulty. In the case of winding each secondary coil separately, each to occupy barely half the total length of the spool, leaving a small space between to be filled with insulation, care is required to ensure that the two coils are connected correctly. Each must be wound in the same direction, and the end of one and beginning of the other are connected together and from this connection the centre tap is taken.

When a tapping is required in each coil so that a lower voltage than the maximum is made available, the posi-

tion of the taps requires careful notice.

Suppose that in each secondary of 1000 turns a tap is to be provided 200 turns below the maximum. The first coil is wound with 800 turns, then the tap taken out, and 200 turns added to finish. The second coil is then wound, turning in the same direction as the first, and when 200 turns have been wound, the tap is taken out, after which 800 more will complete the coil.



The beginning of the first coil and end of the second are connected and the centre tap is taken from this connection. If the lower voltage is to be used, the two taps will be connected to the rectifier to form "B" + 1 and "B" + 2. For maximum voltage the end of coil 1 and beginning of coil 2 will be taken to the rectifier. The beginning of the coil is where winding is commenced when putting the turns on.

Centre of Filament Winding.

CENTRE taps need not be provided on filament windings if the electrical centre is determined outside by means of a 60-ohm potentiometer connected across the filament terminals of the power valve constituting the ideal method, as by adjusting the movable arm, the position giving least or no hum is easily found. A potentiometer for this purpose can easily be made

An Experienced Constructor

Made Three "Moving Coils"

I AM always interested in the constructional articles in the "Radio Record," and always look forward every Friday for it, writes Mr. Schofield (Hamilton). My son and I have done a great deal of constructional work in radio as a hobby, and find a great deal of pleasure in it. We have built up several sets, and like all good radio enthusiasts, we are never satisfied. We are using at present a 5-valve B-D, and get very good results. We have also a shortwave set, with screen grid, H.F. det., and one audio. This we plug into 3-valve audio of B-D. last stage is push-pull, giving in all 6 valve on shortwave. The big American shortwave stations come in loud enough to be heard all over the house, in fact KGO, S.W. station, on the Wednesday evenings can be heard over 200 yards away.

Our eliminator was made from "Megohm's" instructions, using B.H. tube, and has been a great success, we never having touched it since it was made. We have also made three moving coil speakers, and they also are a great success. The first one was a junior, by way of experiment, with a 1in. core, and about 2½lb. of 20ft. enamel wire, and high resistance coil of 1000 turns. The results were fairly good, but she took over 1 amp. and did not like too much volume.

The next we made had a 2in. core, and 7½lb. 20ft. wire, with 5in. cast iron pot. This speaker, we thought, was perfect, till we made another one. This last one is similar, only we made the pot and core of steel, and the pot larger, to take 10lb. of 20ft. enamel wire, and we also connected to this speaker a dry rectifier, and made a small stepdown transformer. We are putting through this magnet coil 15 volts. The moving coil has 1000 ohms. The enamel we used for this was taken from a Ford spark coil, and looks about 40 odd.

The moving coil was made on a collapsible former, and every 200 turns during winding we gave a coat of amilacitate of celluloid. After leaving to dry for a day the former was taken away, leaving a strong self-supporting lightweight coil. The cone is about 3in. in diameter, and diaphragm about ½in. wide, made of packanette, or, in other words, rubberised linen. The gap for moving coil is 3-32in. The speaker is about the last word in reproduction, and still we are not satisfied.

I was greatly interested in your article in the April 12 issue, referring to matching impedances for dynamic cones. We would like to build a new audio amplifier, the best possible, to be worthy of this speaker. What do you say to Ferranti 5 transformer in first audio, followed with Ferranti push-pull, and using 2-250 valves in P.P. with 450 volts on plate, or would you recommend using 2-210 valves? The impedance of the 250 is only 1800, while that of 210 is 5000, and this, of course, in push-pull would be doubled.

A.: Use two 210's, two 250's would cause complications.

Do you recommend the matching of impedance with high resistance, or step down transformer?

Short-Wave Notes

Duplex Telephony Tests

ON May 8, at 8.45 p.m., a strong carrier was heard on approximately 52 metres, sending a tuning note, afterwards in slow Morse the call sign of station. On waiting a little while, the announcement was made as follows: "Hullo, ladies and gentlemen, this is WJC (or 3XL) testing." I left the set a little while, but on returning 3XL was off the air. It is an experimental station, and is located at Boundbrook, New Jersey, N.Y. His strength on the 8th was R7 to S.

Amateurs heard on Friday, May 3, were 2EO and 2AY, carrying out duplex telephony test on 80-metre band, both stations coming in well; in fact the little test was well carried out, and I would like to hear some more of it next Wednesday. 2EO stated that K2ME and Java would be "jealous," or words to that effect. 2AX, Palmerston North: Wonderful strength, but modulation a little harsh at times. 2BE, Hastings: Strength R9, clear and steady—a transmitter to be proud of. It is surprising the strength some of these hams come in with at times, and makes one think they are using 30,000 watts instead of 30 or so. So carry on the good work, hams.

Saturday, May 4: PC8, Holland, was heard on their afternoon programme, coming through at great strength. The latter part of same was special for Sydney radio show, which was in full swing on Saturday.

The test with 2ME and W8XK I heard on May 8. Both sides of the conversation came through quite well, 2ME fading a little; this fade was also noticeable with W8XK, so he stated. W8XK mentioned in his conversation that CJRX had been relaying 5SW, Chelmsford, and also that 5SW was heard quite well in Pittsburgh, some days being weaker than others.

Duplex telephony has been heard on Saturday afternoons and Sunday mornings between Germany and South America, the German on 26 metres and the American on 31 metres. By the nature of the conversation heard, it seems a wireless duplex telephony service has opened up between these two countries, because many times different people at both ends have been heard to converse on private matters, and after such conversations Germany was heard to give the time taken for the call to America. To quote on time given, Germany stated that it was four minutes 20 seconds, but I heard nothing in reference to the charge to be made for each call (probably £5). I am sure the German was DHC, Nauen, the shortwave station who carried out a

A.: Use the latter (200 turns on M.C.).

What a.c. valve would you recommend for first audio.—(UX226).

What valve will be best to use in making new eliminator to rectify the 450 volts?—(Use 2 x 281's.)

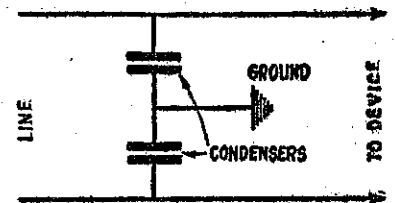
great many tests with VK2ME a little time back.

Our friend London calling has been heard a great many times lately on word tests, but so far I have not been lucky enough to get his correct call-sign; in fact, he never gives anything else but "London calling," or "This is London."

A Useful Filter.

GETTING away from the shortwaves, this may be of interest to experimenters in wireless circles: An Eastern radio concern has designed an interference filter for preventing noises from the power line from interfering with the operations of electric receivers or power supply devices. This filter may also be used to prevent radiation and interference from electric sewing machines and all similar electric appliances.

Two types are available, on which can be used with a maximum voltage of 220 volts A.C., or 400 volts D.C.; and the other designed for operation with 125 volts A.C. or 20 volts D.C. This filter consists of two 2m.f.d. in series with mid-point, grounded as shown, the interference filter and circuit diagram of connections are:—



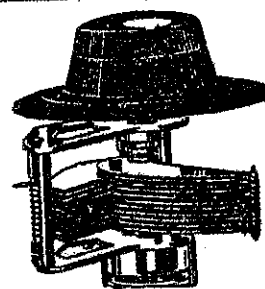
I should like anyone who is trying out this as a filter to write me and tell me their results.

Threshold Howl

THE following are a list of suggestions to cure the above trouble:

1. Reduce filament voltage of detector valve.
2. Change value of detector grid leak.
3. Connect grid leak of 1 or 2 megohms across secondary of transformer.
4. Change transformer. In general, a cheap make will be less likely to cause threshold howl than an expensive one.
5. Use filter output circuit for 'phones.
6. Connect condenser of .0005 or .001 across 'phones.
7. Connect H.F. chokes in each 'phone lead.
8. Use capacity coupling for aerial circuit instead of loose inductive coupling. It may be necessary to try more than one of the above "cures" to stop the howl.

FOR long-distance reception on a crystal it is essential to erect a low-resistance aerial of good length, and it must be higher than surrounding objects.



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Short-wave Jottings

OUR short-wave correspondent, Mr. Sellens, of Northland, writes:—

It is reported that a new short-wave station will shortly be testing in Australia, on a wavelength of 40 metres.

"Popular Wireless" says that DHE is the call of the German station working on about 41 metres. This station is often heard here in the early morning, usually at good volume.

I am surprised to read that Mr. W. T. Webb (Devonport) reports good reception of 7LO, Nairobi, recently as the reverse has been my experience. Nothing stronger than a faint carrier has been heard for some time.

The following from "Wireless Weekly" (Sydney) will be of interest to all who listen to G5SW, Chelmsford, England:—

Some little time ago BCI, Mr. Russell Crane, wrote to the British Broadcasting Corporation giving his views on the 5SW service. The letter from the B.B.C. in reply, is very interesting, and is, by the courtesy of Mr. Russell Crane, published here:—

Dear Sir,—We have to acknowledge with many thanks your most interesting letter of January 22, in which you express your views on long distance short-wave transmission, with particular reference to 5SW. In the main we agree with all that you have to say.

Since their inception the transmissions of 5SW have been, and are, purely experimental, and we make no pretensions that the station is giving a service; for this there are several reasons.

1. Owing to the difference in longitude between the various parts of the British Empire a service would have to be on a 24-hour basis.

2. It is well known to any competent wireless engineer that a short-wave transmission of sufficient power can be received at a given time and under favourable conditions almost anywhere in the world; but there is a vast difference between mere audibility and a service which implies regularity and reliability of reception.

3. Given a "service" there still remains the difficult and involved question of payment for maintenance of the transmitter, programmes, and copyright, with all its implications.

It seems unfair to us that the licensed listener in the British Isles, from whom the B.B.C. derives the major portion of its revenue, should bear the whole cost of a short-wave station on a service basis, seeing that such a station is practically useless to listeners in the British Isles.

There are three main categories in which we can place those who are interested in a short-wave Empire broadcast service:—

(a) The "amateur" wireless engineer and experimenter. This class need not be considered seriously, as it is relatively small.

(b) Those who live in isolated parts of the world, where there is no broadcasting service, such as military and civil administrators, planters, and so on. Judging by correspondence and conversations with individuals of this class, broadcasting in any form, would be a godsend, and the persons concerned are not, and would not be, particularly critical as regards the quality or the regularity of their reception. Some, no doubt, come under class "A," but these are in the minority, the majority have no technical knowledge, and look upon their receiver as a means of entertainment and not as a scientific instrument.

(c) Those, like yourself, who live in the greater Dominions within the range

of an existing broadcast service, but who would wish to hear some items of special interest, such as mentioned in the postscript of your letter.

The problem of Empire broadcasting is intimately bound up with that of short-wave reception, and the purpose of our present experiments, which you know are being carried out with 2XAD, is to ascertain how far short-wave reception can be stabilised and improved by the utilisation of spaced aërials or other devices so that the chief obstacle, fading, may be overcome.

The idea at which we aim is that a short-wave transmission may be so well received as to be "re-broadcastable" throughout the local system in a manner that would not compare unfavourably with the normal output. It is probable that we are very far from attaining this ideal; but the results we have had to date are not altogether discouraging. For instance, we re-broadcast quite successfully from 2XAD the description of the landing of the Graf Zeppelin in October last, and the National Broadcasting Corporation of the United States of America relayed the London programme, received via Chelmsford, through a chain of 40 stations, on February 5. You will see, therefore, that our experiments tend towards providing a service that will be of interest to the listener in class "C." Class "B," however, has our very sympathetic consideration.

We have set forth the position at some length, and trust that the explanation is clear.

We would once more express our thanks to you for your letter of January 22, and previous correspondence.

BRITISH BROADCASTING CORPORATION.

T. C. H. SHAW, Chief Engineer.

This letter put the matter in a nutshell, and there is no doubt but that the B.B.C. is working hard to overcome the many technical problems involved.

Saturday, May 11.

BIG BEN from 5SW was followed by the music critic, Mr. Ernest Newman. His talk was 100 per cent. readable at R8. A piano recital followed, then a talk about the French, after which the latest golf news was given. Reception was very good. PCJ was not heard during the early morning or afternoon.

KDKA and 2XAD were both R8, reception being clearer from the latter station. "Half-hours with the Senate" were broadcast from both, the usual musical programme following.

Sunday, May 12.

AT 11 a.m., 2XAD was tuned in, when music was quite good at R4; KDKA being R3 at the same time, with a talk spoilt by a H.F. hum. Later 2XAD was relaying dance music from the Crystal Room of the De Witzler Hotel, Albany, N.Y.

A stranger on about 49.6 metres at R5 was picked up. Music and talk were heard, but static on this wave was very bad, too much so to hear the call; by the voice, it was an American.

KDKA after their usual programme put over a special one for the Byrd Expedition. At 5.13 p.m. they called WFA, a short-wave station of the expedition, stating that they were ready for the message which was to be rebroadcast. The first message was to the effect that the programme had been well received by the party.

A full report by Mr. R. Leslie Jones appeared in last week's "Record" of this and the following interesting broadcasts.

Reception was very good from both KDKA through W8XK and VK2ME.

but signals from Sydney via Pittsburgh were badly distorted, though fully readable.

W8XK were also transmitting on 62.5 metres, which at 5 p.m. was receivable at R6. A strong harmonic on 31.25 metres was readable at about R3. This is the first time I have heard the first harmonic of their 62.5 transmitter. RFM was R9 at 10 p.m. Static was very bad.

Monday, May 13.

MUSIC was just audible on about 32 metres at 6.30 a.m. 3LO, Melbourne, was late in starting. Strength was R9, with excellent modulation, but severe fading.

Tuesday, May 14.

AT 5.27 a.m. the tuning whistle and call of G5SW were heard. After Big Ben the conclusion of an organ item was picked up. A talk about theatres followed, strength was R8-9, but readability was poor. Records and then a French lesson were heard. There was not any sign of another s.w. station on telephony.

RFM, ZL2BE, and ZL2AX were well-received during the evening.

Wednesday, May 15.

VERY rapid fading caused 5SW to be not worth listening to this morning. DHE (?) Germany, on about 41.8 metres was quite good at R8. Musical items with "Achtung," etc., between. During rather long intervals a metronome could be heard ticking. "Ramona" was heard soon after 6.30 a.m., when reception was rather better than it had been. PCJ commenced at 6.30 a.m. with what they termed a "special experimental transmission." This continued till about 7.15 a.m. Strength was R8, with slight fading. On 15.6 (about) and 15.2 metres duplex telephony (Dutch?) at R4 and R6 respectively, was heard. The same voices, a man and woman, were audible from each station. W6XN (KGO) was tuned in at 5.45 p.m., when the "World's News Service" was being given. An announcement was made that the programme of KGO was broadcast on shortwaves through W6XN each Tuesday night from 8 p.m. till 12 p.m. (Tuesday 8.30 p.m. till 7.30 p.m., New Zealand.) The "Spotlight Revue," from the San Francisco studio was heard till 6.30 p.m., after which Frank Ellise and his Trocaderoians entertained with dance music till 7.30 p.m. The station signed off at 7.31 p.m. VK2ME at R9, and VPD, Suva, at R7 were on duplex telephony.

Thursday, May 16.

DHE again was very good at R9. "Achtung—Berlin—" was all I could make of the announcements. Music was heard till 6 a.m., after which slow speech with long intervals was broadcast. 5SW were late in starting. Strength R7, with rapid fading. W6XN was R3-4 at 6 a.m. The two stations just above 15 metres on duplex telephony were both very weak. At 10.30 p.m., very weak speech was audible on about 16.4 metres. ZL2BE, Hastings, was very good at R9. RFM R8-9. Some static. PHI at 11 p.m. were R3-4, increasing to R5 during the short time I was listening. Music and talk was very clear and steady.

Friday, May 17.

A TALK about "China" was in progress when 5SW was tuned in at 6 a.m. R7-8, about 50 per cent. readable. At 6.18 a.m. Jack Hobbs was announced, who sang a comic song with patter, topical items such as the weather, the coming elections, etc. PCJ was R8 at 6 a.m., remaining at that volume till 7.30 a.m. British Colonies, America and Canada were called.

Results of Exhibition

BUSINESS at the Wireless Exhibition at Olympia this year was of a record nature. One loud-speaker firm alone reckoned that it would sell at least 150,000 loud-speakers in the coming season. Already British radio goods are invading the American market, says a well-known manufacturer, foreign competition is no longer feared, and the Continent now looks to Britain for its supply of radio gear.

FOR SALE OR EXCHANGE

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

PHILLIPS ELIMINATOR, new model, £5; also Crosley Pick-up with tone-arm, etc., £3. New condition. Any demonstration. "Dent," Box 893, Auckland.

SHORT-WAVE SET and number of Radio Parts, Condensers, Transformers, etc., for sale, very cheap. Apply P. J. Cannell, Rangataua, K.C.

WANTED SELL, 5-Valve Radio, complete, Accumulator, "A" Charger, "B" Eliminator, Loudspeaker. Cash £20. Apply "Calcutta," Box 1032, Wellington.

FOR PRIVATE SALE, Seven 20-Volt Units Fuller "B" Batteries; large capacity; in perfect condition; cost £9 9s. What offers? Write Radio, care 110 Southern Cross Building, Auckland.

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HAVE you obtained your "Listener's Guide"? 2/6 from booksellers and radio dealers, or 2/9 post free from publishers. Box 1032, Wellington.

SHORT-WAVE SET by Mack's Radio. Owner bought another set. Box 3, Stratford.

YOU can save money by writing for our special radio mail-order price list. Electric Lamp House, 27 Manners Street, Wellington.

RALEIGH 5-valve radio set, £10 cash. Valves in good order, also 6-volt A battery, 50-volt B battery; A and B battery charger. Freight paid to any address by owner. Owner going in for all-electric model. Apply "Receiver," Box 64, Henley, Otago.

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