

THE RADIO RECORD

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The Frequency Tests--Some Notes in Explanation

By W. J. Bellingham



A LARGE number of letters have been received from listeners giving their experiences in the reception of the frequency test, and many of these ask for explanations

on various points.

In the following notes Mr. Bellingham covers the ground of these questions.

THE test dealt with frequencies up to 16,000, the 30,000 frequency being put over in the form of a novelty. It was not expected that 30,000 would be received by any loudspeaker, and it is a frequency not essential to music. The frequencies from 10,000 to 16,000 represent those of the highest overtones in music, and they would naturally be heard only very softly, and are not absolutely essential to good reception, being present in only a few of the very highest tones on certain instruments. A number of people have received these frequencies, but they would naturally receive them very faintly, and their reception would merely indicate a very sensitive and responsive speaker, which could be relied upon for a most accurate reproduction of timbre.

Since approximately 4,000 represents the highest fundamental in music a listener would understand that these notes would bound to be softer in frequencies above 4000 or 5000 for the reason that these frequencies represent overtones only, which are of course much softer than fundamental tones. Any speaker which received frequencies from 4000 up to 9000 or 10,000 with decreasing intensity, could be relied upon faithfully to reproduce practically the whole of the musical scale in almost every instrument.

FULL volume would not be heard much above 3000 and though frequencies above this number were put out with

equal volume by the station, they would be heard less loudly by listeners, for the reason that neither the speaker or the human ear would have the same capacity to respond to these vibrations.

The most commonly misunderstood feature of the test is the meaning of the term quality or timbre. The timbre or characteristic quality of the notes, is that which distinguishes one instrument or voice from another. If the frequencies which represent overtones are not



Mr. W. J. Bellingham,

heard, then the tone is not more impure but is actually purer but less characteristic and more monotonous and dull, that is to say each tone will have a more or less similar quality.

A USUALLY well-informed and capable writer, touching on this question, assumed that the lack of high over-

tones would give more or less of a gramophone quality. This is of course entirely wrong. The lack of overtones would give a purer quality, but no character. The peculiarity of the quality of a gramophone or a loudspeaker to which this writer refers, is obtained not from the lack of high overtones, but from the association of regular musical vibrations with irregular vibrations which represent noise. These irregular vibrations or noise come from many very different sources, such as from the needle scratching on the face of the record, or from the irregular vibration of various mechanical parts of the gramophone or the loudspeaker, or from the manner in which the electric current is handled.

FROM our reports, we find that the average loudspeaker has accepted with even volume frequencies somewhere in the region of 3000, and among better results fading intensities have been received in many cases up to 8000 or 9000 only a very few having received anything beyond 10,000.

It will be clearly understood that it is not necessarily the speaker alone that is responsible for these results, but that the efficiency of the speaker depends also on the whole audio circuit.

The matter of the matching of the audio circuit and the loudspeaker will be the subject of further articles in the "Radio Record."

A very large number of coupons and replies have been received by both the Company and the "Radio Record," in connection with our offer of a guinea prize for the best coupon and most informative letter. This matter is being carefully perused, but it is so voluminous that it is impossible, in justice to competitors, to make an award this week. —Editor, "Radio Record."



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Summary of World Radio Systems from the N.Z. Angle

THE report, in dealing with broadcasting from a statistical angle, says:—

Attached hereto is a schedule giving certain data and some unique comparisons with respect to broadcasting developments in a number of English-speaking countries, where broadcasting has undergone most rapid development. The figures should prove of value in demonstrating from various angles the position of New Zealand broadcasting in relation to other countries. To those able to analyse the same they should furnish data for much useful speculation. Such subjects, for example, as the effect of population-density and distribution, license fees, and signal intensity upon development may, within certain limits, be deduced.

British and American Systems.

THE standard of broadcasting existing in the United Kingdom has now reached a high plane, the aim being to so serve the country with broadcasting-stations of suitable power that reception will be possible to almost the entire population by means of a crystal type of receiver. The organisation of broadcasting in the United Kingdom is broadly similar to what obtains in New Zealand,

The official report presented to Parliament by the Chief Telegraph Engineer, Mr. A. Gibbs, embodying the observations made on a number of important questions while on a visit to overseas countries, carries a full analysis of the broadcasting position, which is of interest and value to listeners. This report endorses the soundness of the system of operation and control which has been established in this country.

country. Such a scheme goes a long way to minimising interference from radiating receivers; and, with the large revenue and the variety and high class of talent available, a very satisfactory standard of broadcasting service has been attained and is assured.

The conditions in New Zealand are relatively much more difficult. The smaller population means a smaller revenue, and has involved the necessity of a higher licence fee. The larger and more-sparsely-settled area would make it a much more costly problem to furnish equivalent signal

of broadcasting stations, and it recently became necessary to appoint a Commission to exercise a regulatory control over broadcasting stations with a view to minimising mutual interference. This Commission has already done good work in reducing the number of stations—until recently about seven hundred—and the interference already referred to. No fee is paid by the listener. Programmes are provided largely by commercial firms seeking the goodwill of the public by the provision of programmes of entertainment which

ments in the United Kingdom will be along the lines of forming a chain of high-power broadcasting stations throughout the country, each link consisting of two stations, located remote from centres of population, and transmitting simultaneously different classes of programmes on different wavelengths. Such a system would have many ideal features, enabling the great majority of the population to select, with equal facility, one of two different programmes from its local centre, and without the drawback of one being overpowered by the other.

General Observations.

BROADCASTING stations in the United Kingdom, the United States, and Canada were visited, and the policy and practice of broadcasting in all its aspects discussed with authorities responsible for technical design and operation and for the provision of programmes. In New York two broadcasting stations, each of 50 kilowatts output, and embodying radically different principles of design, were seen in operation, and relevant data obtained.

At the Hague, Holland, a limited use was being made of subscribers' lines and telephones for the reception

(1) Country.	(2) Radio Sets in Use.	(3) Total Population.	(4) Radio Sets per 100 of Population.	(5) Radio Sets per 100 of Population, based on N.Z. Development (2.7 per cent.) and Relative Population Densities (Col. 6).	(6) Area of Populated Territory in Sq. Miles.	(7) Population Density per Square Mile.	(8) Radio Sets per Square Mile of Populated Territory.	(9) Radio Sets per Square Mile based on N.Z. Development (0.4 per cent.) and Relative Population Densities (Col. 6).	(10) Telephones per 100 of Population.	(11) Percentage Ratio of Radio-set Development to Telephone.	(12) License Fee.
New Zealand	40,000	1,500,000	2.7	2.7	100,000	15	0.4	0.4	9.2	29.3	£ s. d. 1 10 0
Australia	150,000	6,000,000	2.5	1.1	1,000,000	6	0.15	0.16	6.1	41.0	1 8 0*
Canada	140,000	9,000,000	1.5	1.2	1,250,000	7	0.112	0.18	12.2	12.3	0 4 2
British Isles	3,000,000	48,000,000	6.2	7.2	120,000	400	25.0	11.0	3.0	206.6	0 10 0
United States of America ..	5,500,000	114,000,000	4.8	6.8	3,026,000	38	1.8	1.1	14.8	32.4	..

Country..	Number of Broadcasting Stations.	Total Antenna Power in Watts.	Average Power in Watts per 1,000 Square Miles.	License Fee.
New Zealand	11	6,900	69.0	£ s. d. 1 10 0
Australia	21	8,690	8.6	1 8 0*
Canada	48	21,500	17.2	0 4 2
British Isles	21	36,000	300.0	0 10 0
United States of America ..	700	510,000	168.0	..

*Average.

with the exception that the original broadcasting company, composed of various manufacturing firms, has now given place to a representative Broadcasting Commission appointed by the Government, and having full powers to carry out the policy of broadcasting in the interests of the public. All tastes are being catered for, and a high quality of service is being maintained. By use of land relay lines a considerable amount of simultaneous broadcasting is done from the different stations throughout the

strength in all parts of the country, the configuration of which is such that only a small portion of the radiated energy is available over the land-masses of New Zealand. If anything like the same uniform standard is to be obtained it is clear that the problem must be attacked from a somewhat different angle.

IN the United States the policy in relation to broadcasting is an entirely different one. Little restriction has been placed upon the growth

constitute what is known as indirect advertising.

On the commercial side the British and American systems are therefore entirely opposed in principle; but, as each is providing a radio broadcasting service giving a very great measure of satisfaction to the public at large, it would appear that New Zealand could benefit by absorbing into its future policy the best and most appropriate elements of each.

As far as could be judged at this stage, it would appear that develop-

of broadcast programmes. The arrangements were such that, upon the receipt of a call from another subscriber, the telephone reverted automatically to its normal use. A special subscription was charged for this service. In the United States, electric light and power wires were also being used to some extent for a similar purpose. These developments have not yet made a great impression upon the practice of broadcast reception.

The Interference Problem.

THERE seemed to be unanimous opinion among administrative officers responsible for the oversight of wireless broadcasting that the primary responsibility of the governing administration is to keep the course clear for the listener to the local broadcasting station rather than to cater for the inevitable but transitory stage of "long-distance hunting." The listener who habitually

(Continued on next page.)

desires to reproduce a long-distance station while the local station is operating must take full advantage of the developments in the art in relation to selectivity and filtering of unwanted signals. The listener most likely to produce interference to the long-distance enthusiast is usually equipped with a receiving set which is incapable of cutting out the neighbouring station while it is in operation, and is not likely, therefore, to invade the field of the long-distance listener during the local hours of service.

In this connection it was interesting to learn that in the early days of broadcasting a considerable demand existed in the larger cities of the United States for the observance of silent nights by the local stations. With the progress of the broadcasting art this demand has now practically ceased to exist, and listeners are largely unanimous in desiring

that the local station shall give, as far as possible, a continuous service. They have outgrown the desire to chase long-distance stations with their variability and greater susceptibility to interference from static and electric light and power sources. In fact, there is in many cases little temptation to seek after distant stations under the same administration, as it not infrequently happens that the same programme is being simultaneously broadcast from all stations. It is admitted that the above arguments, while discouraging to long-distance reception, assume that everything possible should be done to create local programmes of a satisfying nature.

Dominion Practice Approved.

It will interest New Zealand listeners to know that British manufacturers are more seriously applying themselves towards the production of

neutralised sets embodying radio-frequency as well as audio-frequency amplification and having a minimum of controls.

The subject of the New Zealand regulations in relation to the prohibition of the worst forms of "interfering" sets came up for frank and free discussion. When the nature of the New Zealand restrictions was fully explained and understood, I was gratified to find an almost unanimous approval of the attitude taken by the Department in this connection. I learned that many of those with whom the subject was discussed had strongly advocated a similar procedure in the early days of British broadcasting, but, due to a variety of influences that happily do not obtain in New Zealand, their ideas, although partially realised for a time, had subsequently to be abandoned. I am satisfied that we have been proceeding on sound lines in endeavouring to keep the ether as clear as practicable of unnecessary interference from "transmitting receiving sets," and that the benefits of such action will be considerable.

A great deal of useful work has been done by the Canadian Radio Administration in detecting causes of interference to broadcast reception arising from electric light and power lines and machinery connected thereto. Properly-equipped testing-vans locate these sources of trouble, power companies and private individuals co-operating in the employment of approved remedial measures. Bulletins have also been prepared by this progressive Radio Department dealing with the various cases met with in practice.

It was the general opinion in all places visited that the elusive "howling valve" does not lend itself to equally satisfactory treatment along similar lines. The remedy undoubtedly lies in prevention rather than cure.

Quality of Broadcast Reception.

THOSE who are chiefly interested in high-grade reproduction of broadcast programmes are inclined to the view that the principal weaknesses of broadcasting to-day lies in the use of unsuitable receivers employing amplifying units of too limited a capacity, and badly-designed loudspeakers. The better class of manufacturers has of late been paying great attention to these features, which they claim to have satisfactorily met, with, however, a resultant high development cost and comparatively higher sales cost. It needs to be emphasised that satisfactory quality of reproduction is obtainable only by the use of properly-designed receiving sets, amplifiers, and loudspeakers. The broadcast transmitter itself has made wonderful strides during the last few years. A well-designed transmitter properly manipulated leaves little to be desired in its ability to modulate with complete faithfulness the "carrier wave." The improvement most urgently required is in the design of the complete receiver and reproducer, and in the appreciation by the public of the fact that, while results of a kind can be obtained with the simplest of apparatus, only well-designed receivers will reproduce with a high degree of faithfulness, and with results satisfying to a musical ear, the complex sound-

waves emitted from a well-designed broadcasting transmitter.

Absorption, Distortion and Fading

THERE is no doubt that the conditions governing reception are much more favourable in New Zealand than in more densely-settled communities, where, in certain regions, considerable absorption and distortion are experienced. These effects are due to interference from tall buildings which have a definite relation to broadcast frequencies. There is also the advantage that in New Zealand there are comparatively fewer sources of electrical disturbances, which in some locations are a serious hindrance to broadcast reception.

THE peculiar fading effects experienced when listening to remote broadcasting stations at night were discussed with specialists who have devoted much time and thought to the problem. At the present state of the art there is no practicable remedy for such evils in cases where they arise from variations in the upper atmosphere. The available means of determining definitely whether such causes are atmospheric or instrumental were inquired into, and valuable suggestions obtained. In addition, literature was supplied dealing with the the most recent investigations into this perplexing phenomenon.

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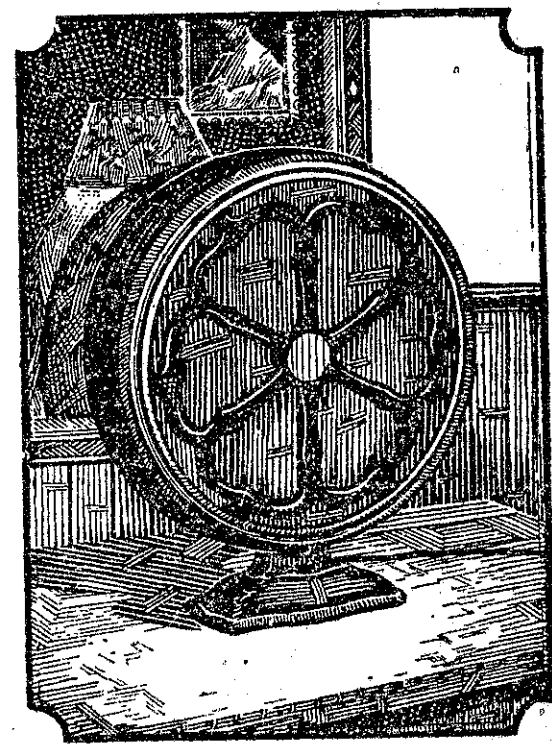
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Notes by the Way

(By "Switch.")

THE "frequency test" by 2YA Wellington created all round interest. Many loudspeakers jibbed badly at the audibility tests when the overtones reached the shrill whistle stage. In brief, this simply means that some receiving equipments (not necessarily the speaker alone) cannot reproduce the notes from certain instruments with all their overtones, and thus absolute truthness of tone is not obtained.

HOWEVER, a sufficient number of overtones are generally reproduced sufficiently audibly to be fairly close to the real thing, and only a "super-car" could detect the deficiencies. The 2YA Wellington frequency tests provided an attractive feature of the programme. It was noticeable that the pitch of some of the notes changed distinctly during the first two or three seconds they were being sounded.

WHAT is the average efficiency life of a good valve? is a question of a prospective beginner. The average life can be put down at 1000 hours, but some makes exceed this. To prolong the useful life a valve its filament should not be burned too brightly. The rheostat should be adjusted to give just the best results and not turned any further on.

THE colloid rectifier used by numerous listeners for charging their wet B batteries is apt to get over-heated after a few hours' use. Several listeners have inquired how to meet this difficulty. My own practice is to stand the colloid in a large bowl of cold water with the water a fraction of an inch above the brown liquid in the colloid. The colloid can stand in the bowl of water while it is operating. The water in the bowl can be easily changed when it warms up. This keeps the colloid cool.

AN up-country visitor wishes to know what is the amplification ratio of a step of radio frequency. The practice is to calculate the increase in signal strength for distant reception at the rate of from 3 to 5 times, or even more, dependent, of course, upon the efficiency of the radio frequency valve, correct A and B voltage, and radio frequency circuit, and the method of reducing the natural tendency to self-oscillation of the valve.

A WELL-KNOWN DX listener in the Manawatu asks what should be the value of the leaks and condensers used in a resistance-capacity of audio-frequency amplifiers. The condensers should be about .01 mfd. and the resistances about 1 megohm.

"N. H." (Hataitai) states that his neighbour claims to be able to hear howling valves per medium of his crystal set, and he questions this. It is quite possible, providing the howling valve is fairly close to the crystal set, but both sets must be tuned to the same broadcast station. Evidently some genius starts his valve howling on 2YA Wellington, which is the only station likely to be tuned in by the crystal set.

SOME have asked how airplanes contrive an "earth" for a radio receiving set. The practice is to use the metal parts of the aircraft as an earth, and one aerial wire trailing beneath the airplane supplies the antenna.

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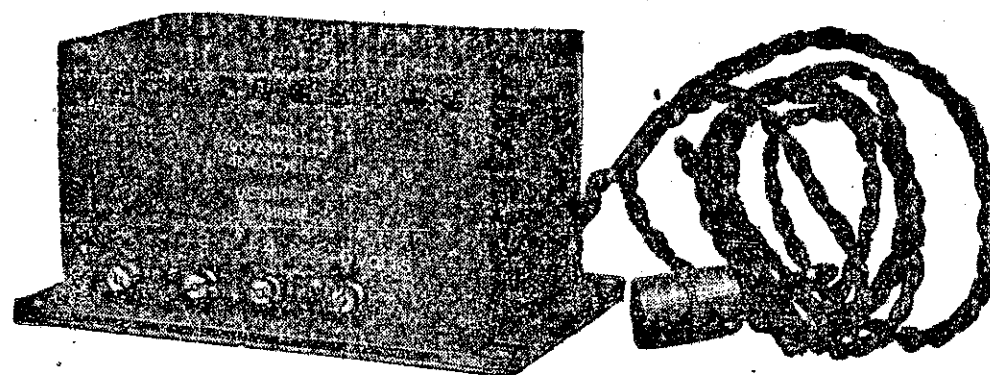
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WELLINGTON, AUGUST 10, 1928.

THE RACING GAG.

THE effort that is being made by the racing authorities to gag broadcasting and completely prevent the public from receiving early news of results will certainly not win public favour. The volume of correspondence which we have received since the restrictive aims of the two conferences was made public, quite sufficiently shows the tenor of public opinion. A selection of those letters is published elsewhere in this issue. They quite abundantly show the authorities concerned that the public is not deceived by the reasons advanced, and is disappointed at the failure of the conferences to weigh adequately all factors and give due regard to the unquestionable interest developed in racing on the part of distant listeners, and the joy thereby given to a wide circle of those who are loyal supporters of racing in their own locality.

IT was represented in connection with the decisions of the conferences that while they were prohibiting the broadcasting of descriptions of the races, facilities equal to those afforded the Press would be available to representatives of the company for the collection and distribution of information. This proves not to be so. Correspondence which has passed between the conferences and the company show that there is a tag attached to the "liberty" proposed to be given. The condition sought to be imposed is that publication of the information gathered shall not be made until the evening sessions, by which time, of course, every person in the country interested in the result will have secured the news from the evening papers. This is a most extraordinary attempt to suppress and delay information. In declining to avail itself of the proffered privileges while so restricted, the Broadcasting Company has done the right thing—it would have definitely failed listeners had it done otherwise.

THE Press exists primarily as a medium for the distribution of news, and in the larger centres of population those papers secure the greatest measure of public favour which are most active in their enterprise and carry the news first to the public. No journal would ever consent to be bound, in its report of public proceedings, to allow hours to elapse before publishing news it was entitled to publish. The history of journalism is full of stories of dashing enterprise and resourcefulness in securing and publishing news of value. The first journalist who defied an order for suppression was John Wilkes.

The House of Commons forbade the reporting of its proceedings. Wilkes defied the House, and successfully asserted the rights of the people to news—and early news.

THE Broadcasting Company is quite within its rights in announcing that to serve the listening public with the news of public events to which it is entitled, it will broadcast as soon as available the results of races at meetings which are of sufficient public interest. More, it will win the favour of listeners if it shows enterprise in securing those results with as little delay as possible. The action of the racing authorities in proposing special treatment of broadcasting is not likely to be approved by the public. The proposal is illogical and unfair. If the authorities are desirous for their own purposes of preventing all information as to proceedings leaking out till afterwards, it should at least do the job properly, and prohibit the afternoon Press from publishing early results; further, all telephone communication between the ground and the outside world should be cut off; even a forty-foot board fence might be erected round every course in the country! Without these measures in support of the policy of suppression, the demands of the racing authorities look suspiciously like victimisation of broadcasting. Why should broadcasting be penalised in this fashion?

KFI FOLLOWING 2YA

CAREFUL TUNING NOW REQUIRED FOR LOCAL STATION

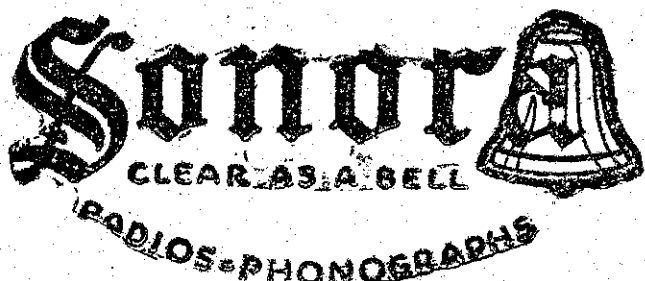
THE latest American mail brings news of the intention of KFI to install crystal control similar to that which was recently carried out at 2YA:

"Complete arrangements having been made with the Western Electric Company for the installation of one of its latest type crystal control panels at KFI which is now making extensive changes in its present equipment in order to incorporate the new unit.

"With the new equipment in operation, KFI's present efficiency will be more than doubled. In addition to keeping the station on its proper wavelength, the new installation incorporates a double modulation system which gives eighty per cent. modulation as contrasted to the thirty per cent. which KFI and other stations not so equipped now have.

"The crystal control equipment consists of a quartz plate which it kept in oscillation at a constant frequency. In order to maintain this frequency, the plates are enclosed in an insulated container which is kept at a uniform temperature by means of thermostatic control."

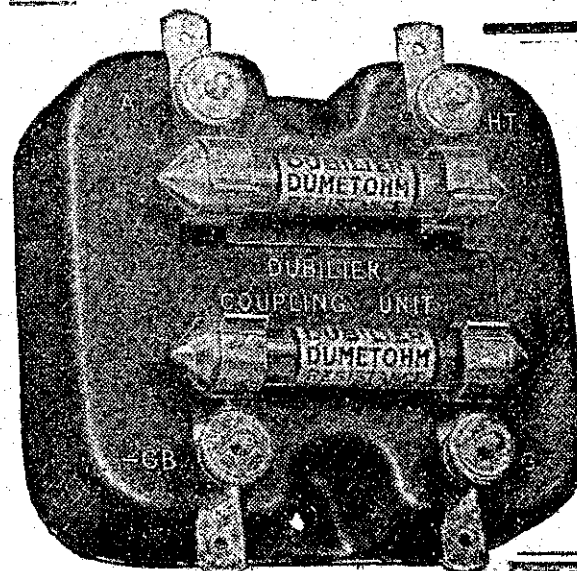
WHILE careful listeners-in report a big improvement in both volume and clarity, as the result of crystal control being installed at 2YA, it would appear from other correspondence that it is necessary to remind listeners to be very careful when tuning in to 2YA, so accurate and regular is the wavelength. They should tune in to the middle of the wave. If the tuning-in is on either side there is a possibility that the quality will suffer. If the volume is too strong listeners are advised not to detune to reduce the volume, but to make reduction by suitable volume control, or by varying the antenna coupling.



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SINCE the Heeney-Tunney boxing match, correspondents in all parts of New Zealand have written congratulating the Broadcasting Company on the success of the re-broadcast.

Very complete plans had been made by all stations, and every effort was made to pick up everything that came over the ether, whether in voice or Morse. Of the four stations, 2YA and 4YA fared best, and 1YA worst of all.

CONDITIONS were much against 1YA on the day. A receiving set, specially made for the occasion, was installed at Takapuna. This set had been tested the previous day, and the result was very satisfactory. High hopes were entertained that the re-broadcast of the fight on the Friday would be successful. Friday's effort was, however, a complete "wash-out." Apart from the Takapuna line, special arrangements had been made in case of reception at Waiheke Island, and with other amateur receiving sets in Auckland. A receiving set was also tuned in to Wellington, but reception was also impossible from there. Neither was the Morse reception intelligible. Only one amateur listener in Auckland was able to pick up 2XAD, but in his case local interference and other noises were such that the reception was incoherent.

4YA fared well. Their listening post was at the signal station at the Heads, the short-wave set used being that of Mr. F. Barnett, radio dealer and operated by Mr. J. D. McEwen.

In Christchurch, half a dozen of the best sets in the city were co-operating with 3YA, but conditions for reception there were very bad. Neither could Morse be picked up. For a while 3YA tuned in and re-broadcast 4YA, the result being very noisy, but very interesting. Then 3YA tuned in to 2YA, re-broadcasting the ringside description (which was again noisy), and the Morse, which was being deciphered in the announcer's rooms at 2YA.

As the afternoon wore on, conditions improved until at 3.30 the special broadcast from 2XAD giving a review of the fight was picked up by 2YA and 3YA. Every word of the American announcer was perfectly clear, and the rebroadcast from both stations was excellent. This American announcer was not without a sense of humour. It was interesting to note that when he signed off at 12.9 a.m. it was 3.39 p.m. the same day here.

FROM among the appreciative letters which have been received, the following extracts have been made:—

"I want to take this opportunity of congratulating the company on its ef-

Listeners Appreciate Broadcast of Big Fight

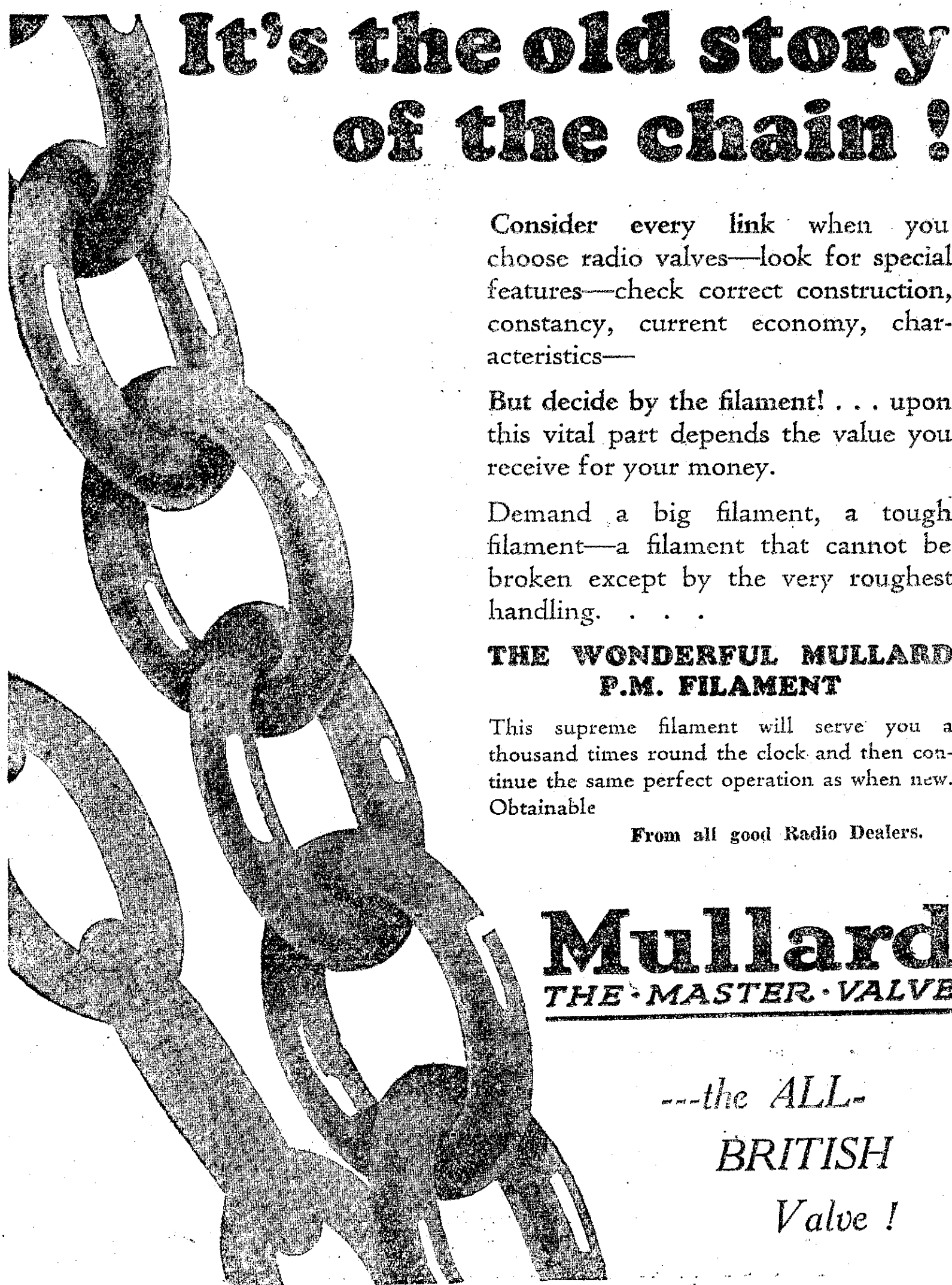
Disappointing Interference in Auckland

forts in connection with the Heeney-Tunney fight. Whilst it was not possible to follow the fight as broadcast from the ringside, the fact that the company had made arrangements for the receipt by Morse of the description of each round more than made up for any other shortcomings. It was a wonderful effort, and the pioneer work done by the company will long be re-

membered. The Heeney-Tunney fight must prove a tremendous advertisement to broadcasting, and the success of your efforts are an incentive for future broadcasts of events of world-wide interest."—"G.W.M.," Kelburn, Wellington.

"We listened in from about 12.30 today, and although we heard only a few fragments of sentences from New

York while the fight was in progress, we got practically everything from the announcer at 2YA, and about 3.30 we heard the account of the fight broadcast from New York, and could follow it well. I consider the effort of the Broadcasting Company, with the assistance of the Telegraph Department, was a huge success, and I might say the announcer at 2YA was never heard to better advantage, nor were the records which were put over the air to fill in time while the news was being expected. So far as the King Country is concerned, the whole issue was highly satisfactory. Our set is a 5-valve one, and part of the time the re-



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EXIDE SERVICE STATION

79 Kent Terrace, WELLINGTON.

The Mullard Wireless Service Co. Ltd., Nightingale Lane, Balham, London, England.

ception was so loud that we had to run on four valves."—"D.M.," Rangataua.

"Your description of the big fight deserves higher praise than I can give you."—"R.G.," Hamilton.

"Congratulations. Splendid reception at Denniston of Tunney-Heeney fight."—"H.," Denniston.

"I would like to voice my appreciation of the broadcast of the Heeney-Tunney fight, and the great effort in giving listeners-in of the very best. I also feel I must pay a tribute to the relaying of the concert at the Town Hall on Friday night. The announcing was splendid. 2YA is hard to beat."—"Listener-in," Wadestown.

"The thanks of every person with a broadcasting set are due to you, for the wonderful success you made of the Heeney-Tunney fight. I personally felt I had received more than full value for my year's subscription for this one item. I would also like to say, without any reflections on the other New Zealand stations, that 2YA is out on its own. Its announcers and programmes are a real pleasure all the time. You, I know, will at times get the "knock-back" from some head-aching and livery subscribers, but it is the same in every walk of life. In any case, you "land the goods," and that is what counts in the long run, and undoubtedly your Heeney-Tunney effort is your A1 up to date. Carry on!"—"M.J.," Hastings.

NORTH SHORE RADIO CLUB

A PUBLIC meeting was held in Daly's Hall, Takapuna, on July 18 for the purpose of forming a North Shore Radio Club.

Mr. A. J. Lewis read the notice convening the meeting, and explained the objects of the club, which are to foster the interests of the listener from the point of view of obtaining better reception from his receivers. Constructional nights are to be arranged on which listeners are invited to bring their difficulties, have them explained and corrected. Opportunity will also be given for the building of receivers.

It was unanimously decided to form a club, and the election of officers was proceeded with. Chairman, Mr. E. J. Wiseman; secretary, Mr. A. J. Lewis, P.O. box 1711, Auckland; committee, Messrs. H. E. Parsons, L. Ayre, F. Dawson, W. Adams, F. J. Callaghan, and K. Lewis.

Mr. H. E. Parsons gave an interesting and instructive address on the "Romance and Reality of Radio," dealing with the early discovery of this marvellous science, up to the modern set. The meeting concluded with votes of thanks to the speaker and convenor.

Auckland Notes

(By Listener.)

FROM their own station Aucklanders did not hear a description of the big fight, but when they were acquainted with the reception conditions prevailing there was no complaint, for the public recognised that the feat was impossible of achievement. At the time of the contest, however, there was much disappointment, for people were keyed up to fever heat of excitement over the event.

THERE continues to be nothing but praise for the radio play recently broadcast. It is quite refreshing to note the favourable comments which have appeared in the correspondence columns of the daily press, and the "Comedy Players" have every reason to feel gratified at the success of their initial big venture. The general query among listeners is "When will they do it again?"

RADIO popularity is a condition not easily gained, but one which clings once it is attained. In Auckland there is perhaps no better example of it than in the case of the Rev. Lionel Fletcher. As a preacher he commands our largest radio "congregation," and his mail on succeeding days is invariably a large one. As "Uncle Leo," too, he is doing splendid service in the children's hour.

THE utilisation of "B" eliminators is growing apace. So much so, in fact, that local demands for some of the best known types exceed present supplies. The writer is one who is the fortunate possessor of a good eliminator, and like nearly all others he would find it hard to go back again to the old dry batteries. Auckland power in most areas maintains a fairly constant pressure, and little trouble is experienced with fluctuations. Last night there was an opportunity to hear one of the latest power-socket sets, with the inevitable result—everybody wants one. It is quite easy to understand after hearing one why they have caught on so rapidly in America.

A DESCRIPTION of the finals of the Auckland amateur boxing championships provided an excellent relay. The announcer, Mr. Hutter, I presume, handled his task in a most realistic manner, and in one roomful of listeners a number of the fair sex, both young and old, took the keenest interest in his accounts of the fights. There is no doubt that the description did much to popularise the fistic pastime, and to give those who had never witnessed a boxing contest the desire to see what they had heard described so well.

THE function of the gramophone in radio entertainment was well demonstrated from 1YA on Wednesday evening. The latter part of the programme was devoted to a lecture-recital by Mr. Karl Atkinson, whose enthusiasm for the recorded disc has now extended to the reproduction of it through the air. Mr. Atkinson made a wise selection in the items which he submitted, and in each case he introduced them with illuminating remarks. In fact, he lifted the programme quite above its usual level by a most appreciated half-hour, and all

lovers of good music will await a repetition of Wednesday's new departure.

THE relay from the Embassy was another attractive feature on Wednesday. This relay is eagerly looked forward to, and hopes are expressed that it is but the forerunner of more extensive developments in broadcasting of theatrical items.

THE most disappointed people over the Heeney-Tunney fight were the short-wave enthusiasts who had been encouraged by prior tests to anticipate fine reception. The ether treated them shockingly, and though many claimed a fair measure of success, there is no authenticated case of hearing the whole ringside account. Local howling was very much in evidence. The howler is usually regarded as an inconsiderate mortal with no thought for his neighbour, yet when 1YA put over a special plea for him to consider the reception of others it was noticeable that local interference was minimised to a great extent.

LISTENERS will congratulate Mr. W. J. Meredith upon his fine running account of a great game of football on Saturday last. The struggle was an epic one, packed full of tense moments, and of these the announcer made full use. The roars of the crowd, the graphic description—these brought splendid realism to those at their receivers.

THE new "UX222" received a thorough testing during the fight relay, and came triumphantly through the ordeal. Mr. H. Jacques, who was using one in his short-wave set, stated that there was no difficulty in obtaining more volume than was necessary. Unfortunately, the extraneous noises alone prevented clarity of speech being noted.

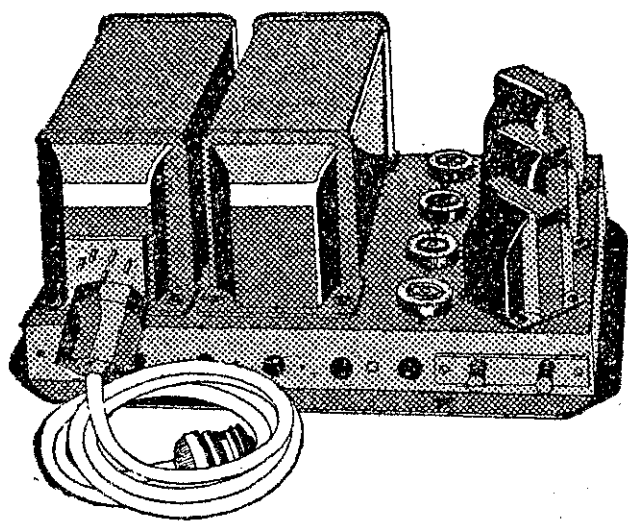
QUITE a number of new performers are now making first appearances before the 1YA microphone. What excuse over monotony of performers will the disgruntled ones now make? The new talent is well up to the high standard demanded at 1YA.

THE souvenir issue of the "Radio Record" is just to hand among local subscribers, who find in it much to interest and instruct. Through the medium of numerous illustrations they are familiarised in another manner with many who have been merely names to them in the past. The resume of New Zealand broadcasting, and the indications of future policy are both welcome and encouraging, while the advice to gather in additional licenses is something that every listener could well follow in his own interests.

Protest From Backblocks.

RE the banning of racing broadcasts, I hope the gentlemen who passed that resolution will kindly refrain from listening-in to the Heeney-Tunney fight and the Tasman fight—in case they start illegal betting. To us people away in the backblocks—with only one mail a week—a little more everyday news would be a great blessing.—H.S. (Collingwood).

A NEW Amplifier



THE SAMSON "PAM"

The "Pam" has been built and is introduced to New Zealand, to meet the public demand for a better and more "versatile" Amplifier.

The "Pam" can be connected in the out-put of the detector valve (thus replacing the amplifier in your set) . . . or it may be used in conjunction with a phonograph pick-up to reproduce gramophone records with marvellous volume and lifelike fidelity.

The "Pam" is different, and better.

Watch for the arrival of the "Pam" at your Radio Dealer's.

RADIO LTD.

COMMERCE BUILDINGS, ANZAC AVENUE, AUCKLAND.

BANNING OF RACE BROADCASTS---

★ **VERY** heavy programme of sporting events faces the stations, and particularly 3YA, next week. Representative Rugby fixtures are now in full swing, in addition to which the second League Test match will be played, important boxing contests will be decided, and race meetings held.

It has been a matter for much regret among all sport lovers that the racing and trotting authorities have banned broadcast descriptions. The veto will, of course, considerably mar the pleasure which was derived by those who were unable to attend the meetings, but the Broadcasting Company proposes, in consequence of the decision of the Racing and Trotting Conferences, to supply such information as it is able to do at the earliest possible moment.

Its special effort will be directed to securing and broadcasting the results of the various events with such descriptions of the races as are available. If the service be not as complete or as entertaining as it has hitherto been, listeners can rest assured that the Broadcasting Company is exerting its best efforts to continue a service which is so popular and so much appreciated by thousands of listeners.

As has been published in the daily papers, Racing and Trotting Conferences when banning broadcast descriptions of races, agreed to afford the Broadcasting Company the same facilities as are enjoyed by the newspapers. It was suggested that the Broadcasting Company should send along a representative to make notes on the running of the various races, and that his report should be read out during the evening news session. From the point of view of broadcasting, this offer is no concession at all, for all the information could all be obtained by the Broadcasting Company from the evening newspapers. The aim of the Broadcasting Company is to supply the names of the winners as quickly as possible to those who want the results, and to make the occasion as interesting an attraction as possible to listeners-in who are not greatly concerned as to which horses win or lose. The cancellation of broadcasts as the races proceed deprives every one of the excitement of "witnessing" a race through the eyes of the announcer, but the Broadcasting Company proposes to use its best endeavours to provide listeners at any rate with the results as soon as possible after the numbers go up.

With that end in view 3YA will be on the air from the first race to the last during the coming racing and trotting meetings in Christchurch.

Views of Listeners

An Emphatic Protest.

★ **AS** a holder of a radio license, I wish to express my emphatic protest against the arbitrary attitude taken up by the New Zealand Racing and Trotting Conference in prohibiting the broadcasting of racing and trotting. When one sees that the resolution was carried "unanimously," it makes one wonder whether there are any men left with opinions of their own, as apparently, when they get on

Future Intentions of the Company

SOME correspondence has been passing between the Broadcasting Company and the Secretary of the Racing and Trotting Conferences regarding the broadcasting of races. The resolutions passed by the Conferences seemed to indicate that while broadcasting from the course during the running of the races would be prohibited, the Company would be extended the same facilities as are enjoyed by the newspaper Press, the Conference suggesting that the report prepared by its representative should be read out at the evening session.

In order to clear the position, the Broadcasting Company then wrote asking if, by offering the facilities enjoyed by the Press, it was intended that the Broadcasting Company's representative on the ground could have the use of the telephone for the purpose of communicating to the studio immediately after each race a report of the running and result of that race, such being the procedure followed by the representatives of the evening newspapers, which immediately publish the news.

The racing authorities have now replied, however, making it quite clear that the intention of the Racing and Trotting Conferences was to prohibit, entirely, during the afternoon, the broadcasting of results.

In acknowledging this letter the Broadcasting Company points out how extraordinary it is that the Racing and Trotting Conferences should place such restrictions on the Company when all other medium of communication are allowed to broadcast the results of events immediately they are available. The Company also points out how ridiculous it would be to broadcast at the evening session, say, the result of the Grand National Steeplechase, or the New Zealand Cup, hours after every newspaper or follower of racing has already had the information.

In the circumstances, the letter continues, the Broadcasting Company cannot avail itself of the offer by the Conferences so long as it includes the obligation not to broadcast results till the evening session, a stipulation which the Conference has neither the right nor the power to enforce.

The Broadcasting Company therefore intimates that it proposes to broadcast for the benefit of listeners such racing information as it has a legal right to broadcast, and that it will broadcast it as soon as it is available.

these committees, they lose all independence (if they ever had any) and just vote as the president may dictate to them. We are to-day living in an age when radio is in its infancy, and any advance whatever for the encouragement of its use should be supported and not smothered without reasonable consideration, as has been done in this instance.

I wish the conferences would only give themselves time to think of the injustice they were doing to many lonely backblock pioneers and their families by banning from them the modest pleasure of the hearing the broadcast of racing and trotting. As for their absurd reason, viz., that it facilitates and encourages betting with bookmakers, I have never heard such piffle." If they really do want to prosecute bookmakers, why not apply to the Justice Department to instruct their officers to take action. It would be the simplest of matters to get as many convictions as they require. Instead of banning broadcasting as a means to preventing bookmaking, as they wish to imply. Would it not be just as reasonable to ask the Government to suspend all telegraph and exchange connections on race days? This, I think, would be more effective, and perhaps meet the ends of their absurd endeavours in a far more effective way than

the paltry and arbitrary attitude of "canning" broadcasting.—I am, etc., Bed-stricken Backblocks.

What of Sick Soldiers?

In perusing your valued and appreciated journal, the "Radio Record," allow me to congratulate you on your articles, editorially and otherwise, on the great topic at present being discussed by all listeners, viz., the ban on racing and trotting broadcasts. The articles written coincided exactly with my views, and I feel sure you will receive letters in due course, expressing appreciation. The conference dropped a "bombshell," and again the public have to suffer. Bookmakers do not depend on radio for their information, and the ban, as far as they are concerned, will be of no consequence. They certainly obtain the results over the air from a relay, but what would prove more beneficial to them, they cannot obtain, namely, the dividends. The bookmakers have a great organisation, and even in this city have their own union, efficiently controlled by a president, secretary, etc., and meetings are held regularly in their well-appointed quarters. The racing broadcasts have tended to increase interest in racing, and no listener would be content to listen to a description over the air from a

local meeting, unless circumstances prevented him from being present. As to the business community suffering on account of racing relays, it is ridiculous. The conference have failed miserably to weight the facts before them, with the result that thousands of listeners have to suffer. Even the true Wairarapa sportsman, W. E. Bidwill, Esq., was in favour of the broadcasts, but apparently his hands were tied, and he had to follow the wish of his colleagues. To a great many people's surprise, Sir George Clifford approved of the report by Inspector Ward. Sir George Clifford, a breeder of the thoroughbred, a lover of horse-flesh, "the great old man of the New Zealand Turf," failed to appreciate what radio has done for the sport, and what benefits clubs have derived therefrom.

I know three men (yes, returned soldiers) who have not been off their back for eleven years, who were "smashed up" in the big fight, men who previously were worthy patrons of the racing clubs, but now have to depend on radio to bring in some of the thrilling contests of yore. I visited them yesterday, and it would have brought tears to the eye to have listened to their story. I can imagine Sir George and his colleagues lying on their back in hospital, they, owners of equines, listening per medium of radio to their horses' deeds, the excitement and interest being caused, and then—no more radio broadcasts of racing, because it is playing strongly into the hands of an illegal fraternity, and encouraging people to gamble away from the course. No, the Racing Conference or the police will never stop the bookmaker, as long as a racecourse remains.

Has the Racing Conference done anything to cope with the bookmaker? Why should they interfere in any case. This matter should be looked to by the police, not the conference. Are they going to stop the Heeney-Turney fight, or the All Blacks' tour, because the bookmakers are laying the odds? Further, how many meetings are being relayed annually? Auckland, Christchurch, Wellington, and Dunedin. How do the bookmakers receive their "information" on the smalls? No, Sir George, reconsider the matter, and bring some happiness to many poor innocent souls, who are lying in hospital, in the backblocks, miles away from towns, who have never seen, probably, a race meeting, but who are thrilled by the description.

I hope, Sir, that your valued columns will keep this very important matter before listeners, and I feel confident that the conference, if recommendations were placed before them by the company, on listeners' behalf, they would reconsider their decision. —"A Lover of Sport."

Sports are in Tears.

MANY THANKS for the relay of the big fight on Friday. It came in quite all right. I had 40 visitors to listen in, and spent a very happy afternoon. The poor sports are almost in tears, because of no more races on the air. We were looking forward for Grand National week from 3YA. Every race meeting we spent such happy hours together, it made life so different in the country, and was a great boon to radio.—S.F., Otautau.

Orchestra Arranged for 3YA by Mr. Harold Beck

IT is now nearly a year since the Christchurch Broadcasting Trio was first heard from 3YA. It instantly leapt into popular favour, and it has maintained that honoured position ever since. This is in itself a remarkable achievement. But perhaps it would be even more correct to say that as time goes on the popularity of these instrumentalists increases. Under Mr. Harold Beck the trio seems to be able to cater to the public's taste to a nicety. It is a rare gift.

IN view of the popularity of the trio, much interest will be taken in the announcement that an orchestra under the baton of Mr. Beck will appear next week at 3YA. This is further indica-

corporated in the orchestra, will maintain its identity at 3YA.

Personnel of Orchestra.

Mr. Harold Beck, conductor.
Miss Irene Morris, violinist (leader).
Miss Millar, violin.
Mr. Joseph Mercer, viola.
Miss Nellie Ellwood, 'cello.
Mr. A. P. de la Cour, bass.
Miss Aileen Warren, pianist.
Mr. W. Hay, flute.
Mr. S. E. Munday, Clarinet.
Mr. W. Marquet, cornet.
Mr. Frank Bishop, trombone.

Mr. Harold Beck, the Conductor.

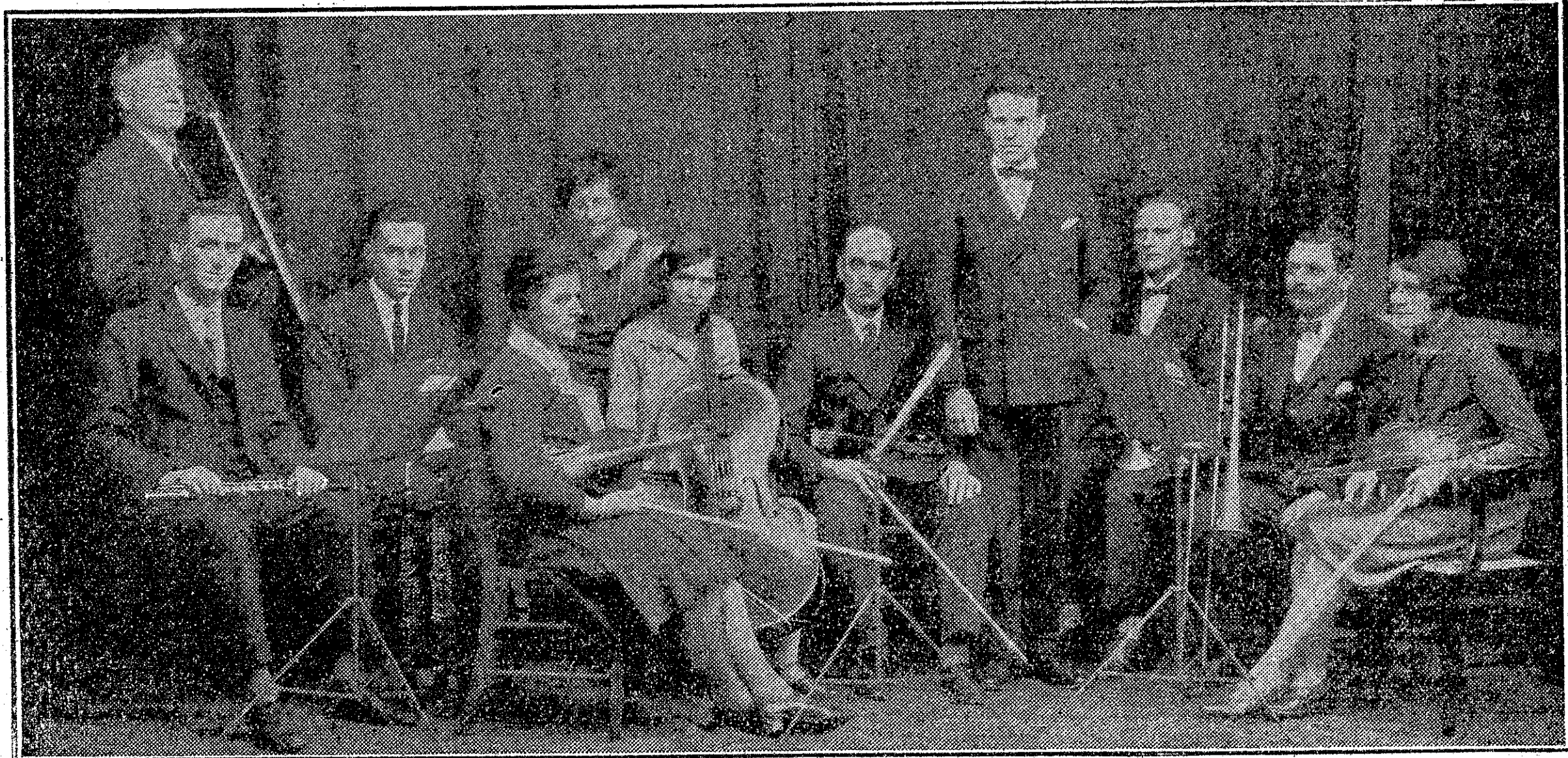
MR. HAROLD BECK, who will conduct 3YA's studio orchestra, is an artist of whom his homeland should be

ant musical societies, and proceeded on a successful tour in the North Island in 1919.

On the occasion of the visit of the New South Wales State Orchestra, M. Henri Verbrugghen immediately offered him a permanent engagement with this organisation. He was associated with the orchestra for two years, during which time he greatly extended his knowledge of symphonic, operatic, and chamber music, and in this connection played trios and quartets with artists and organisations such as the Henri Staell String Quartet, Alfred Hill, Lawrence Godfrey Smith, Cyril Monk, and Frank Hutchens, besides playing for regular weekly chamber music classes at the Conservatorium. In addition, he played in the orchestras of the Royal Philharmonic Society, Apollo Club, and

Miss Irene Morris, First Violin.

MISS IRENE MORRIS, the violinist of the trio, and who will be first violinist of the orchestra, is a distinguished New Zealand violinist who has won great praise from the highest musical critics. She commenced her musical studies at the early age of three, learning the pianoforte from her mother. A little later she began her violin study under the excellent guidance of Herr Max Hoppe, with whom she studied for several years, subsequently coming to Christchurch, where she had further tuition with the late Mr. F. M. Wallace, and other leading teachers. Miss Morris is a well-known concert artist and teacher, and has had a very wide orchestral experience, having been leader of the most important theatres in Christchurch, and also of the



NEW ORCHESTRA TO PLAY FOR 3YA.

From left to right: Mr. A. P. de la Cour (bass), Mr. W. Hay (flute), Mr. S. E. Munday (clarinet), Miss Irene Morris (violin), Miss Aileen Warren (pianiste), Miss Nellie Ellwood ('cello), Mr. Joseph A. Mercer (viola), Mr. Harold Beck (conductor), Mr. W. Marquet (cornet), Mr. Frank Bishop (trombone) and Miss Millar (violin).

tion of the enterprise and enthusiasm which Mr. Beck throws into his work. Mr. Beck has secured the services of some of the best instrumental artists in Christchurch, and formed them into an orchestra, which will be engaged by 3YA. Most of the artists are already well-known performers at 3YA, but some are new to radio work.

THE orchestra will appear twice a week at 3YA, and is certain to be a great success, for, under the able conductorship of Mr. Beck it is likely to be as popular a combination as is the trio. It need hardly be added that the splendid trio, although in-

proud. His recitals and performances as a 'cellist while associated on tours with some of the world's best artists have achieved for him a distinct national fame.

He showed wonderful ability as a child. While touring with his brother as child prodigies, they won the most popular triumphs wherever they went, and later both proceeded to Europe. He made appearances in England while still a youth, critics predicting a brilliant future for him. Here he became a member of St. Nicholas' Church Choir, receiving choral training under Hayden Hare, Mus.Bac. Returning to New Zealand, he appeared for import-

Sydney Choral Society. Besides appearing as soloist in Australia and New Zealand with the Verbrugghen Orchestra, he has toured with Harry Dearth. Stella Power, William G. James, Kate Campion, and Stella Murray. Since settling in Christchurch, where he is well known as a teacher, he has formed the Harold Beck String Quartet, the Christchurch Broadcasting Trio, and a chamber orchestra of his own. He has also conducted performances at all the principal theatres, and is at present conductor of the Christchurch Savage Club Orchestra.

Professional Orchestra, besides playing with the Christchurch Orchestral Society. Her ability as violinist of the Christchurch Broadcasting Trio is well known to all listeners.

Miss Millar (Violin).

NEW to radio work, but a talented and experienced musician, Miss Millar is well known in Christchurch and Dunedin, where she has been leading violinist in the principal theatres. She studied under the well known tenor, Signor Squarise, of Dunedin. From that city she came to Christchurch, and was for four years in the orchestra at Everybody's Thea-

tre. She is well known to Mr. Beck, having been for some time associated with him, Miss Irene Morris, and Mr. Mercer in chamber music. Miss Millar is very versatile, being an accomplished artist in solo, obbligato, and orchestral work.

Mr. Joseph A. Mercer (Viola).

A **SPLENDID** acquisition to the orchestra will be Mr. Joseph A. Mercer (viola). He is no stranger to the studio of 3YA, having performed there before, the most recent occasion being in a quintet organised by Mr. Beck. Mr. Mercer is the proud possessor of a very fine instrument. He is a soloist of wide and varied experience, and has played in numerous theatre and symphony orchestras. He studied and played in Germany, France and England. For some years he was a member of Everybody's Theatre Orchestra (Christchurch), and also played in the Grand, Liberty, and Crystal Palace orchestras at times. Mr. Mercer is principal viola for the Christchurch Orchestral Society, and has made numerous appearances as a viola soloist, but pressure of private business on his time prevents him from appearing more often in public.

Miss Nellie Ellwood (Cello).

IT is not only as a sister of Mr. George Ellwood, conductor of 2YA Orchestra, and cellist of the Symons-Ellwood-Short Trio, that Miss Nellie Ellwood is well known. She is a violoncellist of much ability, and is principal cellist of Mr. Harold Beck's Chamber Orchestra. She is one of Mr. Beck's foremost pupils, and, as a member of the Christchurch Orchestral Society, she is well known as a soloist in the city.

Mr. A. P. de la Cour (Bass).

VERY well known in Christchurch is Mr. A. P. de la Cour. For the last ten years he has been a member of the Orchestral Society, and he has played with most musical organisations in Christchurch, such as the Royal Musical Society, the Operatic Society, and unlimited charities. He has also played in the orchestras of all the leading theatres in Christchurch. He has also played for J. C. Williamson, Ltd., Tait's, etc.

Miss Aileen Warren, Accompaniste.

INSEPARATELY associated with the names of Mr. Harold Beck and Miss Irene Morris when the Studio Trio is mentioned, is Miss Aileen Warren. When first she joined the staff of 3YA as studio pianiste, listeners who did not know were advised that she was one of the best accompanists in New Zealand. It is unnecessary now to repeat the remark. Eleven months at the keys of the studio "Ehrbar" have proved to every artist who has sung for 3YA and to every listener—in that Miss Warren is supremely gifted as a sympathetic accompanist. She loves and lives for her work. Miss Warren was five years old when she commenced her musical education. A particularly apt pupil, she absorbed knowledge so rapidly that, when 11 years of age, she played Beethoven's "Moonlight Sonata" at a concert, and later passed every examination with honours that a student could. As an accompaniste she has had a wide and varied experience. She toured with Miss Rosina Buckmann, and accompanied Osipoff and other artists.

Mr. W. Hay (Flute).

ALTHOUGH needing no introduction to a 3YA audience or any stage in Christchurch, Timaru, Invercargill, or Dunedin, where he has played for the various musical societies, it may be explained that Mr. W. Hay has been flautist for the Christchurch Orchestral Society for some years. He has played for all the local organisations such as the Royal Musical Society, Operatic Society, unlimited charities, Savage Club, and in the orchestras of all the principal theatres.

Mr. S. E. Munday (Clarinet).

REGULAR performers for 3YA, Mr. S. E. Munday and his clarinet are well known to all listeners. He was a pupil of Mr. F. Woledge, Christchurch. Mr. Munday is a member of the Orchestral Society and Harmonic Society orchestras. He has played in various picture theatres in Christchurch.

Mr. W. Marquet (Cornet).

A **LENGTHY** experience as a solo cornet player is behind Mr. W. Marquet, who has been chosen by Mr. Beck to play that instrument in his orchestra. In 1913, Mr. Marquet was a member of the First Canterbury Regimental Band. War years followed, and 1917 found him in France as a member of the Second Wellington Battalion Band. On returning to New Zealand he joined the Christchurch Tramway Band, and in 1927, the Christchurch Municipal Band. He is also at present a member of the Savage Club Orchestra.

Mr. Frank Bishop (Trombone).

SEVEN years as a member of the Argyle and Sutherland Highlanders' Band, during which time he rose to be first trombone player, was Mr. Frank Bishop's recommendation when he came to New Zealand from the Old Land and joined the Woolston Band. It may also be mentioned that as a boy he sang soprano solos for the South London Choral Union. After he left the military band, a position in the Royal Italian Opera Company was offered to him, but, having decided to settle in Scotland, he joined one of the best brass bands, which later became an orchestra. Since coming to New Zealand, Mr. Bishop has played for the Christchurch Orchestral Society and Savage Club, as well as for the Woolston Band.

ON HIS CONSCIENCE.

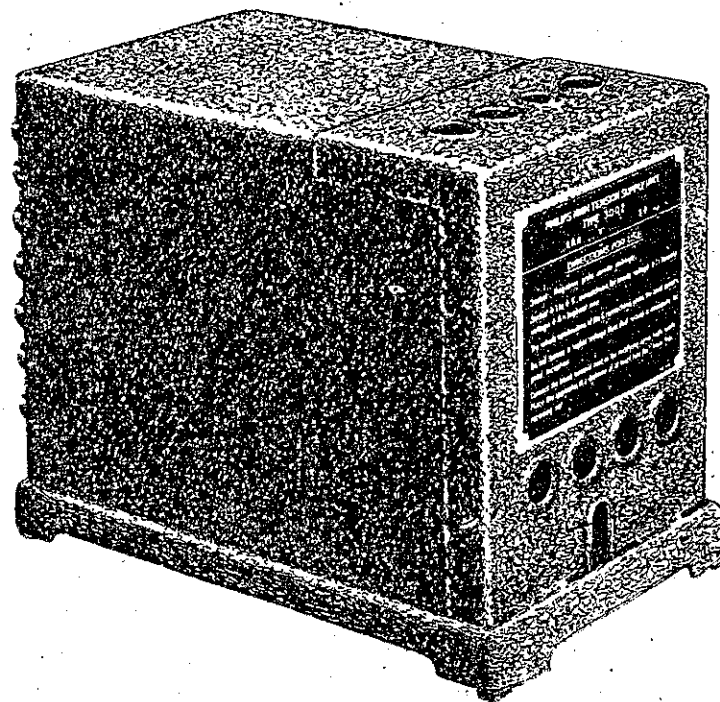
4YA's genial sports announcer, Mr. D. Thomson, whose vivid descriptions of the Rugby football matches are keenly looked for on Saturday afternoons, will soon be a wanted man by a large number of home-loving wives in the southern city. It appears that hundreds of otherwise domesticated husbands are spending the entire afternoon seated before the fire with feet extended to the mantelpiece, and with all attention devoted to the loud-speaker whence comes a first-class witty description of the game, and decisions on the fine points of Rugby. If many of these ladies have their way, Mr. D. Thomson will be spending the week doing up gardens, whose neglected state is attributed to him.

EASY TERMS

on Battery Chargers and Eliminators

Operate your Radio electrically—no batteries to renew—voltage always maintained. Eliminators and Chargers sold by Harringtons

mean greater convenience and less expense without deterioration in quality of reception



Philips "B" Power Unit, Type 3002.

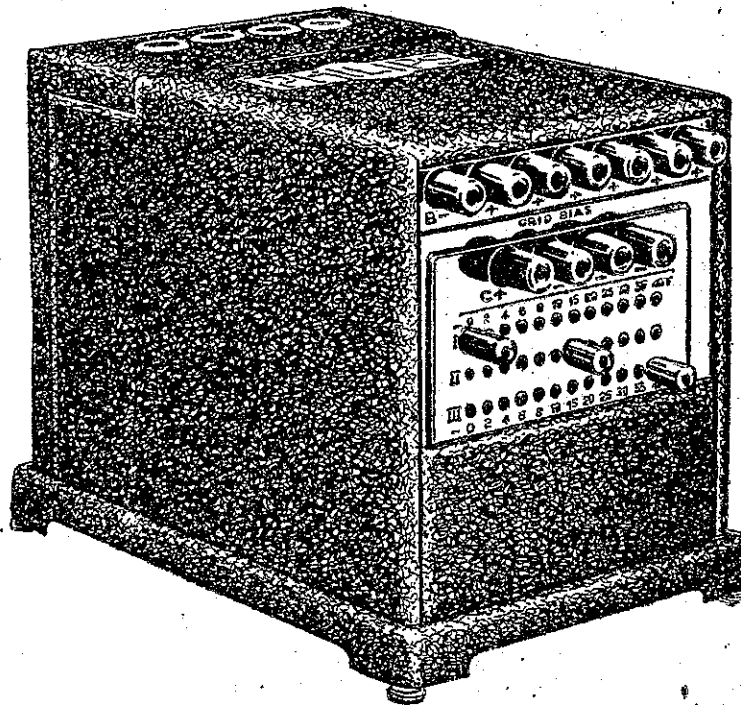
Six different values of "B" voltage. Minimum 6 volts—maximum 210 volts.

Deposit £3, seven monthly instalments of £1. (Cash Price £9/15/0).

Philips "B" and "C" Power Unit, Type 3003.

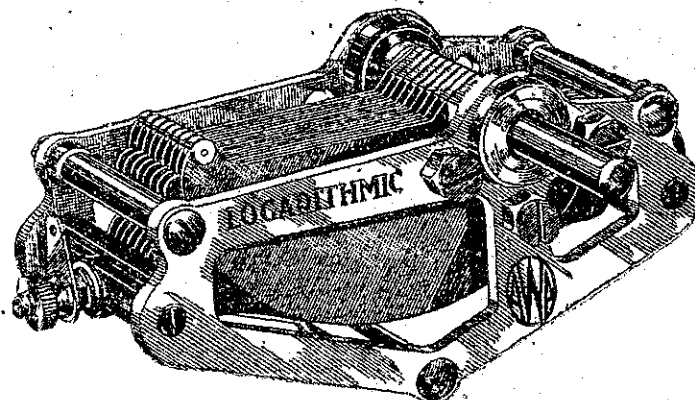
Similar to Type 3002, with addition "C" Tappings. Operates A.C. current. "B" Battery voltage tappings. From 6 volts to 210 volts.

Deposit of £4. Eight monthly instalments of £1. (Cash Price £11/15/-).



PHILIPS COMBINED "A" AND "B" CHARGER

For charging "A" or "B" batteries. Deposit £2. Four monthly instalments of £1. (Cash Price £5/13/6).



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The Woman's Point of View

By "Verity"

"Favourite Novels"

Books.

THE following entries for the "Favourite Novels" Competition were chosen for publication in last week's issue, but were unavoidably held over through lack of space.—Verity.

"The Forsyte Saga."

(By John Galsworthy.)

OF the making of books there is no end—but the end of most books made, what is it? Stories of strange happenings, improbable situations, vague personalities—they charm or amuse for a while perhaps, but soon sink into oblivion. Now and again, however, from amongst the stream of books poured forth from the world's printing presses, there emerges some work which, in its appeal to both heart and mind, is destined to outlive popular fancy. Such is John Galsworthy's "Forsyte Saga."

Upon the literary style I make no comment. Galsworthy is a master of composition. To me, the appeal of the book lies in its faithful portrayal of life. The innermost beings, the very heart-throbs of the men and women within its pages (and they are many), lie bare before the reader. Not only the principal characters—Soames, Irene, Old Jolyon, Jolyon, June, Bosinney, Fleur, Jon—but the minor characters, too, are well and truly drawn. Their "humanness" tugs at our heart-strings. They are us—we them! Around all these characters, and with much wealth of detail, is woven an absorbing story.

The "Forsyte Saga" should find a place in the library of every lover of good literature.—M. Phin.

"The Cloister and the Hearth."

(By Charles Reade.)

MY favourite book is "The Cloister and the Hearth," by Charles Reade. I have read many love stories, but always I return to the charm of that old world romance, and find it most absorbing, from the time Gerard and Margaret met on the road to Rotterdam till their untimely deaths.

Was there ever a more ill-fated pair? Their love thwarted, their marriage ceremony twice interrupted, poor Gerard forced to leave Margaret and his home, his adventures in other countries—perilous, gruesome, gay, but always interesting. The description of the country through which he passed, its people and customs. The good and evil fortune that befell him, the crushing blow of the false report of Margaret's death, when he enters the church and in time returns to his own country, where he becomes a hermit and afterwards the vicar of Gonda.

And Margaret—what a brave, sweet and gracious character! is in her depicted! With what various devices to support her dear ones her loving devotion inspired her! Her grief at poor Gerard's plight when she finds he is the new hermit; the manner in which she makes known his son to him! Her cleverness in coaxing him to the vicar-

age. The woman's wit that inspired her to destroy the cave and lure Gerard's birds with their gilded feet to the vicarage. Lastly, their deaths—Margaret's first, then Gerard's so soon to follow.—"Mifanwy."

"An Introduction to Sally."

(By Countess M. A. von Arnheim.)

I THINK the really perfect novel needs to contain a good plot, a certain amount of laughter, charm, and romance, and I also like the character studies to be cleverly drawn out. For these reasons I am particularly fond of the book entitled "An Introduction to Sally". Although the author of this book has written many brilliant novels, she has always retained her nom-de-plume, "The Author of 'Elizabeth

while the best that is in human nature is extolled.

The heroine is a study of womanhood at her best. Not only does she have an uplifting influence upon her associates in the book, but also on the readers of the book.

Her heart is large enough to mother all who are in distress of any kind. The young folk all feel that in her they have a wise counsellor, a loving and trustworthy friend. True to womanhood, she revels in having a finger in the making of other people's matrimonial pies. The beauty of her character is enhanced by her sordid surroundings, like the water-lily is which grows in a filthy pond. All the minor characters are just as cleverly and skillfully portrayed as is the heroine, and one puts the book down with real regret that it is ended.—Mrs. H. Gedge.

"BETTER WAY" COMPETITION No. 3. MONTHLY PRIZES.

ALL women whose homes are to them a source of abiding interest and delight have their own treasured secrets of housekeeping. It may be an unusual recipe, a scheme for brightening an uninteresting room, a labour-saving notion, an idea for decorative work, a dress or toilet hint, or a pet economy. There is always a special method of performing various household tasks—the "better way." The "Radio Record" offers a prize of half-a-guinea each month until further notice for "Better Ways" from our women readers. The right is reserved to publish any entry not awarded a prize on payment of space rates.

Entries must be written in ink, on ONE side of the paper only, and the name and address of the competitor should be written on the back of each entry.

When more than one "Better Way" is submitted by the same competitor, each entry must be written on a separate sheet of paper.

The decision of the Editor is final and binding. A nom-de-plume may be used if desired.

The August "Better Way" Competition closes on August 24, and the result will be announced on the women's page on Friday, August 31.

All entries to be addressed: "Verity," c/o "Radio Record," Box 1032, Wellington.

and Her German Garden', " the title of the book which first brought her fame. This, no doubt, is the reason why the name of Countess M. A. von Arnheim as a novelist is not more widely known.

The theme of the story is delightfully unusual, at the same time quite within the realms of possibility. The heroine, Sally, is possessed of almost startling loveliness, and yet she has had a gutter upbringing, the beauty being as impossible to hide as the gutter—in fact, it is strange how completely Sally doesn't match. Some of the situations which arise—for instance, when Sally marries and enters society—are exquisite. Withal, Sally has a sweet and charming nature, which endears her to all readers.—"Fountain Pen."

"No. 7, Brick Row."

(By M. Riley.)

"NO. 7, Brick Row," by M. Riley, has a special charm for me because the author has such a good understanding of human nature, and the characters in it are so realistically portrayed that one does not read many pages before one feels that they are beloved and intimate friends. Every page is vitally interesting.

Humour and pathos are interwoven from beginning to end. Every emotion is skillfully portrayed and true to life,

An Artistic Concert

IN the Wellington Cesaroni Studio, where surroundings and atmosphere are instinct with the love and study of musical art, last Saturday evening was presented another of the recurring and artistic pupils' concerts. Dramatic and musicianly excerpts from opera were contributed by Signor Cesaroni, and were warmly applauded, as was to be expected by those who have appreciated over the air his noble voice and ardent temperament; the fact that there are delightful voices in New Zealand being demonstrated by his students, "Caro mio ben" and the delightful "Gavotte" from "Mignon" especially delighting the audience. Two youthful, talented pianoforte soloists gave skilful interpretation of Sinding and Rachmaninoff; and the general camaraderie between performers and audience was intensified by the presence of a member of the Grand Opera Company (at present enchanting the Capital City) in the person of Signor Izal, whose magnificent performance in "Rigoletto" during the past week was eulogised by Signor Cesaroni in his few and graceful words of welcome to the distinguished visitor.

Last Post.—Ford Madox Ford.

THIS remarkable addition to the notable series of war and post-war sketches by a brilliant writer of fiction, essays, and verse, is worthy of the close attention of students of the scope and trend of the modern novel.

Extraordinarily interesting is the presentment of Mark Tietgens, typical British Conservative, condemned in his last years to paralysed speechlessness, although following affairs with a deadly clarity and making vitriolic mental comment on men and women—the latter in particular—who pass before his vision. Much of the story is revealed through the medium of this acute consciousness of the passing show; also as it presents itself to the eyes of his French light-o'-love, Marie Leonie, ultimately Lady Tietgens, who nurses her man with sacrificial devotion, and whose naive and startlingly frank comments on Briton and Gaul make illuminating reading. Then there is Christopher, another and widely-differing Tietgen, with his devotion to old furniture and the family home; and entire lack of it for Sylvia, his lawful spouse, that corrupt, lovely, and unscrupulous liar, surely the most hateful female in fiction.

The literary style is episodic and asmodic in the mode of the moment, events being visualised through the minds of the protagonists; all allied with allusions to the beauty of the English countryside, and unerring insight into various aspects of the social upheaval of post-war Britain, with the disastrous tragical reactions upon a helpless humanity.

"Last Post" will make strong appeal to the intelligentsia, but is not for the squeamish, the narrow-visioned, or those whose taste is moulded by the works of Edgar Wallace or Mr. Oppenheim.—R.U.R.

"Home, Health, and Garden."

Several inquiries have come to hand regarding a book entitled "Home, Health, and Garden," mentioned in this column on July 27. It is being published by the British Broadcasting Corporation (publication department), Savoy Hill, London, W.C.2. We are not aware that any advanced copies have yet reached New Zealand.

Lotion for Chapped Hands.

WOMEN whose hands have to be constantly in and out of water make a mistake in using creams and lotions that tend to over-soften the skin and render it more liable to chapping. For preventing roughness and chapping this lotion is excellent: Take equal quantities of glycerine, methylated spirits and lemon juice, and put in a bottle. Shake well before use. The glycerine heals, the methylated spirit hardens, and the lemon juice cleanses and whitens the skin.

The Annotations of Annabel

DEAREST:

Urgency of Cheap Sale gives way to clear call of Early Spring Show. Very enticing are the new garments in gaiety of colour and seduction of cut. One enviable frock, built to enhance the lines of a slim figure of grace to be had for "Twenty guineas only, moddam," is fashioned of best and blackest georgette, stole-like drapery round square collar bedizened with eccentricity and success with small, colourful, tropic blooms, similar fiery and futuristic emblems adding interest to brief, billowing skirt

WE live to-day amid strenuous unrest, a perpetual babel, daily and hourly becoming aware of change and improvement in the architecture of the young cities of the Dominion. Oft in the still night are to be observed electrical signs and portents of commercial audacity, indicating huge piles of masonry which, in unmarked stages of the weeks and days, appear to spring up like giant mushrooms of a dream. From Wellington Terrace are to be seen two arresting letters of light, which in flaming simplicity proclaim the biggest skyscraper of them all; in the vastness of which, in the cold light of everyday, may be discerned enterprising shops and offices already hanging out their signs. Verily the Capital grows into something approximating a Big City, fresh emporiums of variety and allure appearing with a suddenness akin

to that of the beloved Victorian beanstalk.

IT is hoped that, with these manifold building activities, unambitious homes of beauty and utility may be evolved for the bachelor of any age or sex. Not yet, however, upon the civic horizon glimmers any indication of this counsel of perfection. Recently conning advertisement column in a contemporary in search of the elusive Perfect Flat, this strange anomaly leaped to the eye: "To Le Urgently, Desirable Bed-Sittingroom for Business Lady. With or Without!" Undeniably ambiguous this, and not particularly alluring to a diffident, homeless girl searching for habitation as feverishly as Japhet in Search of a Father.

IN hats, not much alteration is to be noted in shape, except in that tendency to larger circumference, which it needs no Cassandra to prophesy will wilt on the shelf, remaining high and dry until put up at fifteen and eleven-three-farthings at the summer sales; and finally worn for the subjugation of some Nice Suburban Young Man, such as Miss Delafield depicts in her latest novel, whom with his appalling entourage she describes with meticulous exactitude, and an entire absence of that amusing and malicious sparkle with which she imbued her former stimulating novels of modern social aspects.—Yours, Annabel Lee.

the room space—two or more chairs, a small stool and a cot in the earlier stages. After a small bedstead, another delight for the children is the new musical chair and makes an attractive piece of furniture. Sunshine should be the first consideration in the household nursery—at the same time we need to keep in mind the value of harmonious surroundings in the early environment of the child. Simplicity should be the keynote for the furnishings. First it is advisable to choose the floor covering whatever it may be. Linoleum is most suited for this purpose and a plain-coloured one is the most effective, with, say, a few nursery floor rugs. Using a plain paper, a very effective nursery frieze could be used—a design depicting nursery rhymes. The window treatment plays an important part, something that will launder easily is the best. A perfectly plain net, or a net with a small design is the most attractive—for the side drapings a coloured casement cloth to match tonings of room with a small French valance.

Applied Medallions.

A SIMPLE pelmet could be made with a few applique figures of children or animals worked on. Speaking of transfer designs—have you tried the effect of the wonderful coloured medallions which can transform your furnishings by their simple application with paste. If one has been searching for the finishing touch in the nursery decoration, one's search is ended, for nothing could be more desirable than the charm of these new coloured motifs—all the charm and individuality of a hand-painted motif may be painted and otherwise—to the door panels, beds, waste paper basket, lamp shades, work-boxes, candy jars, and other innumerable articles of their use, and will surely catch and hold the youthful eye and captivate the youthful heart. Incredibly little effort is needed to use these motifs with which one can accomplish great effects. They are so simple to use—being applied with paste and the pressure of one's finger-tips and finished with a coat of

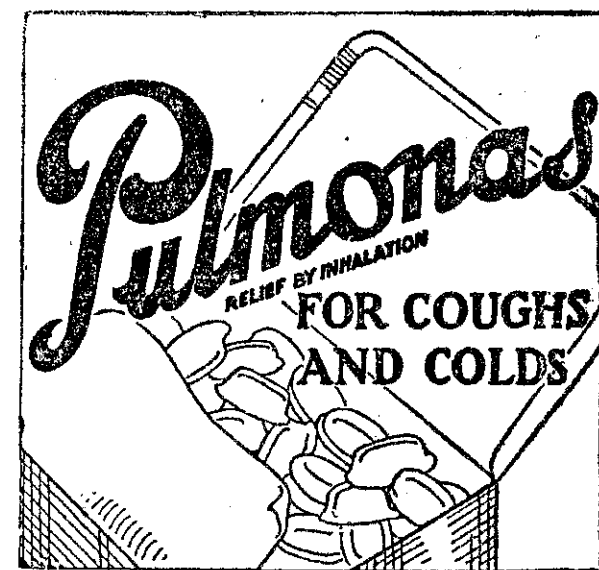
varnish, that the most inexperienced of us can arrive at the same effect as one sees on the most exquisite hand-painted furniture. There is no limit to the number of articles to which one can add both decoration and distinction—at the same time and with so little trouble, by using these medallions.

An Exhibition

Those who appreciate the talent of Mrs. Malcolm Ross, and her achievement in the world of decorative art, have been charmed with her latest show at S. S. Williams Co., Ltd., Lambton Quay, Wellington.

In her paintings of English Gates and Gardens, Mrs. Ross displays true and vigorous draughtsman's lip, fidelity of atmosphere, and a loving representation of colour values, while novel indeed and fascinating are specimens of crystal, of every shape and size, enamelled in colour and gold embossed—tumblers, fruit dishes, wine, and cocktail glasses scrolled, flowered, or entrancingly blobbed with gold—these being enviable possessions for those lucky enough to secure them.

Altogether a show to be visited, and a unique opportunity for the collector to add a specimen to the cherished hoard.



A Bedroom for the Children

Lecture by Mrs. Thomas, at 2YA.

THIS is a room which is especially interesting to do, for it puts all our ideas to the test of practicality—a room in which children are going to live must be easy to clean. Everything must be washable. Everything must be solid—nothing is used that can be broken or torn. Thus the margin of fancy is very narrow and the question arises, can so severely practical a room still retain its childish beauty. The question has been answered with a triumphant yes. A children's room can be conceived in a great many ways according to one's idea of childhood. If one thinks of the child as an impossibly ethereal creation "trailing clouds of glory," one will naturally wish to provide it with a setting that is equally ethereal and impossible. If one thinks of the child as merely cute one will incline to the cuteness of the room, and again on the other hand if one regards children as barbarians the only logical place is to put them in a bare room.

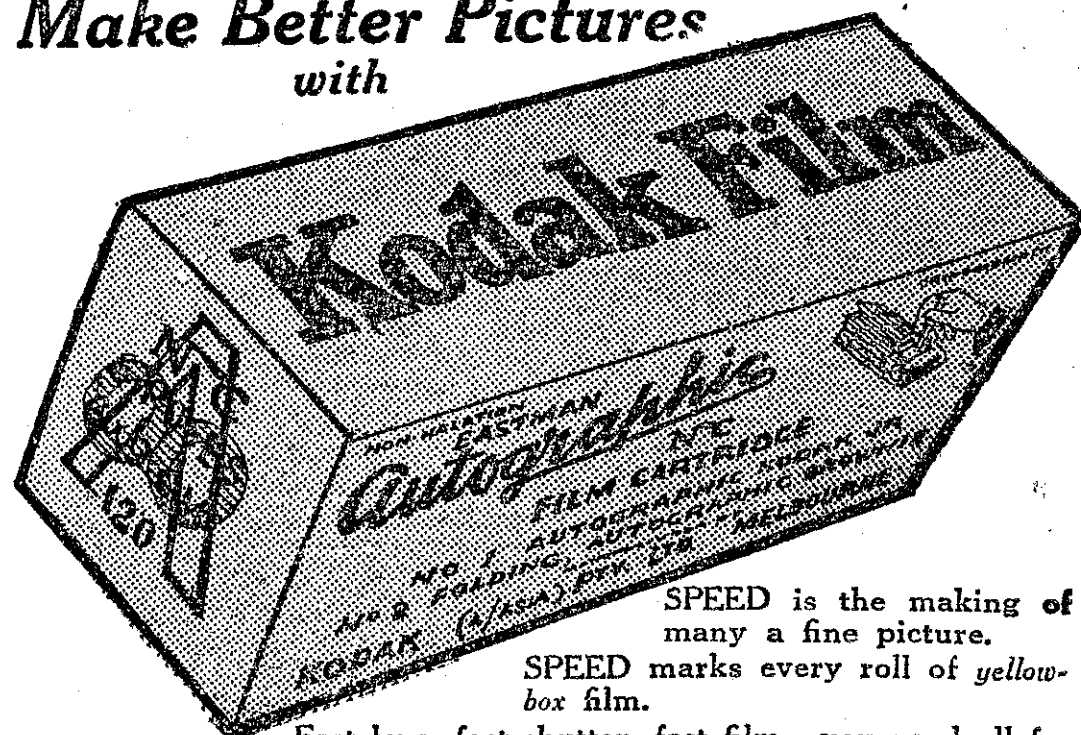
The Modern Child.

The modern child objects to being talked down to. He is conscious that the world he lives in is substantially the same worth that the grown-ups live in, with only a minor difference in scale. Both he and his elders are interested in the mechanics of things, in speed and in power, in boats and motor-cars. His boats and his motor-cars happen to be smaller than those of his father, that is all the difference. Every care must be taken to make the room the kind that will appear to the modern child. The mechanical toys are exact reproduction of the machines that children see in the street and demand a degree of mechanical skill in the operation.

Children's Furniture.

ANOTHER thing which simplifies the furnishing of a children's room is the excellent children's furniture which is made nowadays, and few pieces as possible are used, as children require

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Features of Next Week's Programmes

1YA Notes

SUNDAY evening's church service will be broadcast from St. David's Church, the Rev. Ivo Bertram being the preacher and Mr. E. C. Craston the organist.

Following the church service, Mr. R. W. Strong, of the Auckland Gramophone Society, will present a very fine programme to illustrate his lecture, and lovers of good music are assured of an enjoyable evening's entertainment.

ON Tuesday evening Madame Irene Ainsley's Operatic Quartet will be heard on the air in a number of ballads and operatic selections. The operatic excerpts will be taken from Benedict's well-known opera, "The Lily of Killarney," and the cast will include Miss Airini Rodgers, Madame Irene Ainsley, Mr. Arthur Ripley, Mr. L. Wilson, and Mr. Walter Brough. The Auckland Trio will perform several selections, including "The Waltz of the Flowers," by Tschalkowsky; while Miss Ina Bosworth and Mr. Cyril Towsey will be associated in the first movement from the "Kreutzer Sonata," by Beethoven. Orchestral selections will be relayed from the Majestic Theatre, where the orchestra is under the conductorship of Mr. J. J. Whitford Waugh.

"Founding the Capital" will be the subject of Mr. A. B. Chappell's lecture in continuing his talks on Old New Zealand on Tuesday evening.

ON Wednesday evening, following a programme of grand organ selections from the Auckland Town Hall by Mr. Maughan Barnett, a lecture recital by Mr. Karl Atkinson will be given. He will speak on "Who's Who and What's What on the Gramophone." To illustrate his lecture, Mr. Atkinson has prepared a programme of popular and classical items which should appeal to all listeners.

THE main vocalists for Thursday evening will be Mr. Barry Coney's Quartet, the various members of which will be heard in a varied programme of popular ballads and concerted items. Mr. Culford Bell will continue his talks on "Great Authors," while the Griffiths Duo will provide two humorous sketches. The Auckland Trio, Mr. Victor Bedword (flute) and Mrs. R. A. Singer (piano) will provide instrumental items for the evening.

Also, on Friday's programme, will be Mr. J. F. Montague in a number of humorous items, including "The Old, Old Story" and "The Way to Laugh." Instrumental trio items will be played by the Auckland Trio, while Miss Mollie Wright will contribute 'cello solos.

ON Friday evening a combination new at 1YA will make its appearance before the microphone. This will be the Savoy Vocal Octette, and they will be heard in a special programme of solos and choruses selected from comic operas, including "The Country Girl," "The Geisha," "The Mikado," "Dorothy," and "The Arcadians." An out-

standing item should be the Octette's rendering of "Land of Hope and Glory" (by Elgar).

THE popular Lyric Quartet will again be heard on Saturday evening in concerted items and solos. The quartet will have the assistance of Miss Alma McGrue in several of its choruses, and Miss McGrue will also be heard in solos and duets. Mr. Alan McElwain will again render humorous items from his extensive repertoire.

2YA Notes

ON Monday at 2YA the Ariel Singers will be heard in a miscellaneous programme of tuneful numbers. The works of Michael Head, Roger Quilter, R. Vaughan Williams, Walford Davies, and Kjerulf will all be represented, whilst the duet, "The Outpost's Vigil," will be sung.

Mr. John Prouse, the distinguished baritone, who is proving such a popular performer at 2YA, will again appear on Monday evening, and will present selected numbers. Mr. A. Stanley Warwick, elocutionist, will be heard in further selections from his extensive repertoire, and the Studio Trio will contribute towards the instrumental portion of the programme.

ON Tuesday the Orpheus Quartet will sing the delightful song cycle by May Brahe, "The Pageant of Summer," consisting of melodious quartets, duets and solos. In addition, Mr. Arthur Coe will sing "The Brightest Day." Mrs. Alice Harris will sing "Rose Softly Blooming," and Miss Lily Mackie will sing "The Sands of Dee," while Mr. Len Barnes will sing "Indian Love Lyrics," by Amy Woodforde Finden. These lyrics are—"The Temple Bells," "Less Than the Dust," "Kashmiri Song," and "Till I Wake."

Mr. Billy Hart will appear on Tuesday's programme, and will entertain with songs at the piano; Mr. Doug. Stark will be heard in humorous items: Messrs. Berthold and Bent, a popular steel guitar duo, will be on the air again. The programme will also include a relay of organ music from Taranaki Street Methodist Church, Mr. H. Temple White being the organist.

ON Thursday the Mellow Fellows again take the air. It isn't all honey and jam, they say, trying to cater for the popular demand. Novelty quartets are hard to find, and these people definitely promised themselves that they would give novelty items wherever possible. "Romany Love," the first concerted item, is a fox-trot with a good lilt to its credit. "Stories" comprises a recitation in Yorkshire dialect, entitled "Alf 'Uggins's Wireless," a topical number. "The Tavern Song," by the Baritone Fellow, is a good lively number. The Tenor Fellow will sing "Secrets," a pretty ballad. "My Old Shako," "Wee Hoose 'Mang the Hither," "Saxophone Waltz," "I Know a Garden of Sunshine," "Nelson's Gone A'Sailing," should all prove well worth listening to.

Other contributors to an attractive programme will be Mrs. Norman Izett, Mr. E. D. Bernstein and Miss Violet Wilson. The instrumental music will be provided by the Municipal Tramways Band.

THE Etude Quartet will present a delightful programme on Friday evening. It will contain many operatic gems. A scena from "The Legend of Nerbudda" will be sung, also the "Huntsmen's Chorus" from "Die Freischutz." Mr. Ray Kemp and Miss Greta Stark will sing the duet from "Maritana," "Of Fairy Wand," and the same lady, with Mr. Frank Skinner, will give "A Night in Venice," by Lucantoni. Miss Rita Arnold's selection is the famous "Habanera" from "Carmen," while Mr. Ray Kemp's solo is "In Happy Moments" (from "Maritana"). Mr. Frank Skinner is singing Del Riego's fine song, "A Castilian Lament." From Haydn's "Creation," the soprano solos of which Miss Greta Stark is soon to sing for the Napier Choral Society, will be heard "With Verdure Clad."

Associated with the Etude Quartet will be Miss Edna Sneddon (pianiste) and Mr. Geo. Peek, humorist, while on the instrumental side, the Studio Trio will contribute selected items.

THE items to be broadcast by the "Melodie Four" on Saturday evening will provide entertainment for young and old. Those who love harmony will certainly appreciate "Stars of the Summer Night," while the younger generation will listen eagerly for "Tom, Tom, the Piper's Son." For the little boys and girls who are lucky enough to stay up there will be "The Owl and the Pussy Cat." The solo numbers include "Of a' the Airts" (to please the true Scottish), "The Gift of the Gods," "In a Monastery Garden," and "A Thousand Leagues Under the Sea."

The Glad Idlers, with light vocal numbers, Mr. Lad Haywood with his mandola, Vermont, bird and animal imitator, Miss Gwen Shepherd and Mr. McKeown (humorous items) will also contribute to what promises to prove a very popular programme.

ON Saturday, August 18, a musical composition specially written for the mandoline will be presented by Mr. Lad Haywood. The composer, Mr. E. Grahame Taylor, of Lower Hutt, Wellington, is a violin and 'cello exponent and was, prior to his arrival in New Zealand, for 14 years musical director of the Palladium Theatre, Glasgow. This number is the first of those written by Mr. Taylor for this instrument, and is appropriately named "Here's Luck." We think that bright and catchy melodies will appeal to admirers of the mandoline.

3YA Notes

MRS. D. W. STALLARD and Mrs. P. S. Lawrence, two of 3YA's popular singers, will be appearing on Monday evening. Each will sing three well-known songs. Two very popular male vocalists on the same programme will be Mr. W. Bradshaw and Mr. E. A. Dowell. The numbers of the former will be "I'll Sing Thee Songs of Araby" and "Thora," while Mr. McDowell's items will be "Marguerite" and "Schoolday Sweethearts." Miss Naare Hooper, whose humorous elocutionary items are always specially

good, will give "The Dancing Partner" (a description of professional girl partners comparing notes), and "Peg o' My Heart."

The band, engaged for Monday evening is the Christchurch Municipal Band, under Mr. A. J. Schnack, and a programme of a varied and popular nature will be presented.

THE presentation of "The Quaker Girl" will synchronise with the initial appearance of the new orchestra at 3YA on Wednesday evening. "The Quaker Girl," as is well known, is one of the most popular of all musical comedies. Produced for radio by the Radiolians, Wednesday evening's programme should be one of the most popular of the week. Mr. A. H. Todd, elocutionist, is also contributing on Wednesday evening. His items will be "Shut Up," "Fag Ends" and "Monty on Fashions."

AN Irish concert and a description of boxing will constitute Thursday evening's programme at 3YA. The most popular of the old Irish songs will be sung by the Madame Gower-Burns Grand Opera Quartet, and Irish recitations will be given by Mr. L. T. J. Ryan. The evening's entertainment will open with a carillon of bells playing old Irish melodies.

POPULAR miscellaneous items and a programme of dance music until 11 o'clock will constitute the evening's entertainment on Friday. The vocalists will be Miss Nellie Lowe, Miss Hilda Hutt, Mr. T. G. Rogers, and Mr. A. G. Thompson. The songs to be sung will be of the popular order. The quartet items include "Where My Caravan Has Rested" and "Moonlight."

Two sketches will be introduced into Friday evening's programme by Miss Winifred Smith and Mr. A. Burton. These sketches will be "Light and Shade" and "A Matter of Course."

The dance music for Friday evening will be supplied by the Williams Dance Band, individual members of which will also contribute items.

SPLENDID variety marks the programme for Saturday evening. One novelty will be a duet which Mr. Percy Nicholls will sing with himself, the singer's double being a gramophone record. Listeners will remember that some time ago Mr. Nicholls contributed another novelty when listeners were asked to differentiate between Mr. Nicholls's own voice and a gramophone record of the same song, electrically reproduced.

Some fine quartets will be sung by the Christchurch Male Quartet—Messrs. F. Blakely, L. C. Quane, P. Angus, and J. Filer. Solos will also be sung. Mr. Charles Lawrence and Mr. Les Grummit—who designate their turn as "A piano and two boys"—will contribute piano syncopations and vocal Melodies.

Other contributors to Saturday evening's programme will be Mr. Harry Rowe (mouth-organ solos), Mr. Bracey Trio, rebroadcast of 2YA orchestra, Mr.

Jack Birch (recitations), and Miss Elaine Moody's Hawaiian Trio.

4YA Notes

SUNDAY evening's church service will be relayed from the Hanover Street Baptist Church. The preacher will be the Rev. E. S. Tuckwell, M.A. A most interesting sacred concert will be broadcast from the church at the conclusion of the service. This will be under the direction of the choir-master, Mr. H. P. Desmoulins.

TUESDAY will be band night at 4YA, and upon this occasion the St. Kilda Band will present an attractive programme of well-known music. Outstanding numbers will be Gounod's "Soldiers' Chorus" (from "Faust"), Balfe's overture, "The Bohemian Girl," Beethoven's "Minuet in G," and the ever popular "Druid's Prayer Waltz" (Davson). An interesting number will be a march entitled "Rubenstein," being fragments from the great Russian Jewish composer, introducing his famous "Melody in F."

Some of Dunedin's leading talent has been engaged to support the band music, on Tuesday evening. Mr. L. E. Dalley, the charming tenor, will sing Cherry's immortal Irish Ballad, "The Dear Little Shamrock." Miss Anita Winkel and Mr. Lester Moller, will entertain with elocutionary recitals and music monologues.

WEDNESDAY evening's concert will be of the variety type which is proving most popular in Otago. The entire programme will consist of bright and tuneful songs and music. Dunedin, as might be expected, can boast of some Scottish comedians, and one of the foremost of these is Mr. Buster Brown, whom many claim to be every bit as good as the famous Will Fyffe. He possesses a wonderful ringing voice, a large repertoire, and an ever ready fund of wit. Mr. Brown will make his initial appearance at 4YA on Wednesday in three of Lauder's songs with patter, "Jean McNeil," "Breakfast in my Bed on Sunday morning," and "We all go the Same Way Home."

Three other vocalists of the light type will provide popular song hits on

Wednesday evening: Miss Betty Roberts, easily one of the finest light mezzo-sopranos in New Zealand, Miss Thelma Blackman, and Mr. J. B. McConnell, who will feature some popular comic songs.

THE Dunedin Banjo Trio will endeavour to maintain its good reputation by presenting a number of popular song hit arrangements. Mr. J. McCaw, whose fine playing of the saxophone so closely resembles the tone of the 'cello, will perform a clever rag, "The Crazy Bone Rag," and the melodious "Charmaine." Miss Nancy Ayson will give some humorous recitations.

During the second half of the programme there will be a relay of portion of the oratorio "Elijah," as performed by the Dunedin Choral Society. The soloists comprise four of New Zealand's best known singers, namely, Madame Winnie Fraser (Oamaru), Miss Mabel Esquillant (Christchurch), Mr. L. E. Dalley (Dunedin) and Mr. Wm. Watters (Palmerston).

ON Friday evening listeners will have the opportunity of hearing an attractive studio programme admirably rendered by good broadcasting artists. Miss Molly Vickers will sing a Scottish song, "We'd Better Bide a Wee," and the old Irish favourite "Killarney." Mr. L. M. Cachemaille (baritone) will be heard, among other numbers, in McGill's delightful little song, "Duna." Miss Sheila Neilson will contribute two humorous elocutionary numbers and Longfellow's "The Norman Baron." Instrumental music will be provided by Mrs. Ernest Drake (pianiste) and Mr. George Christie (cornetist). The usual Friday night's hour of dance music will be relayed from the Savoy at 9 a.m.

SATURDAY'S concert will provide a feast of good music. The 4YA Harmonists will present numbers from a charming new song cycle entitled "Dorothy's Wedding Day," by H. Lane Wilson, who occupies a high place amongst English ballad writers of today. Each number possesses a quaint charm, with its wonderful wealth of melody. In addition to the several concerted works, the cycle contains solos for each solo voice.

Miss Roma Buss (soprano), Miss Mollie Andrews (mezzo-soprano), Mr. Chas. C. Scott (tenor) and Mr. F. M.

Tuohy (baritone) are the artists comprising the quartet, and in addition to the song cycle each will contribute solo items to the programme. An instrumental trio consisting of violin, flute and piano, will render Gounod's "Ave Maria" and Losey's "Alita." Solo items will be given by Mr. A. R. Watson (violin), Mr. J. W. Stewart (flute) and Mrs. Ernest Drake (studio pianiste). Miss Roberta Williams will recite "Comfort," by Robert Service, and other poems.

1YA CHILDREN'S SESSIONS

THE second meeting of the Advisory Committee of 1YA was held last week.

At the conclusion of the formal business it was decided to write the local Headmasters' Association asking that if their representative, Mr. Hook, be unable to attend the committee meetings, Mr. Hudson be appointed representative in his stead.

The question of the relaying of the Sunday school anniversaries on Sunday afternoons was introduced by the Rev. Busfield, but it was decided to stand this matter over for the time being, as the question was also of concern to the Church Committee.

A letter was received from the Girl Guides' Association advising that their representative on the committee in future would be Mrs. Bruce McKenzie.

The chairman advised that various small sums of money were coming in from various listeners-in in support of the Sunday evening's children's session. The chairman stated that he was at a loss to know what to do with the money, as of course contributions had not been asked for, but he would like a lead from the committee as to what use these contributions should be put. It was finally decided after considerable discussion to install a wireless set for some poor family or cripple child, should the amount prove sufficient.

The committee decided to meet again on September 25 at 4 p.m.

S-O-S

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Full Programmes for Next

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Sunday, August 12

1YA, AUCKLAND (333 METRES), SUNDAY, AUGUST 12.

- 9 a.m.: Result of All Blacks' match in South Africa.
 3 p.m.: Afternoon session, selected studio items.
 4.0: Literary selection by the announcer.
 4.8 and 4.30: Selected studio items.
 6.0: Children's song service, conducted by Uncle Leo, assisted by cousins from Beresford Street Sunday School.
 6.55: Relay of service from St. David's Church. Preacher, Rev. Ivo Bertram. Organist, Mr. E. C. Craston.
 8.30: Gramophone lecture recital by Mr. R. W. Strong, of the Auckland Choral Society.
 Overture, Berlin State Opera Orchestra, "Mignon" (Thomas).
 Operatic selection, Dusolina Giannini, "Visse d'Arte, Vissi d'Amore" (from "La Tosca").
 Harpischord record, Wanda Landowska, "Harmonious Blacksmith."
 Operatic selection, chorus and orchestra of the State Opera House, "Die Meistersinger" (Church Scene, Act 1).
 Violin solo, Jascha Heifetz, "Rondo" (Schubert).
 Vocal selection, Enrico Caruso, "Messe Solennelle," "Crucifixus" (Rossini).
 Instrumental selection, Elman String Quartet, "Andante Cantabile" (from "Quartet Op. 11") (Tschalkowsky).
 Vocal solo, Galli-Curei, "The Gypsy and the Bird" (Benedict).
 Pianoforte solo, Ignace Jan Paderewski, "Etude in E Major, Op. 10, No. 3" (Chopin).
 Operatic selection, Fanny Heldy, F. Anseu, "Parle Moi de Ma Mere" (Bizet).
 Orchestral selection, National Symphony Orchestra, "Sylvia Ballet," "Cortège de Bacchus" (Delibes).
 9.30: God Save the King.

2YA, WELLINGTON (420 METRES), SUNDAY, AUGUST 12.

- 9 a.m.: All Blacks' football results.
 9.15: Close down.
 3 p.m.: Chimes of the General Post Office clock, Wellington.

Sacred Concert by the Choir of the Church of Christ, Vivian Street, Wellington.

- 8.1: Anthem—The Choir, "What Are These?" (Stainer).
 Baritone—Mr. G. Gray, selected.
 Male quartet—Messrs. Eaton, Carpenter, Gray, and Hall, "The Little Brown Church" (Pitts).
 Soprano—Miss E. Bull, "Nearer, My God to Thee" (Carey).
 Choral—The Choir, "Silent Night" (Dick).
 Baritone—Mr. W. G. Carpenter, "De Profundis" (Verne).
 Monologue—Mr. W. J. Mason, "A Soldier's Reminiscences."
 Contralto—Mrs. L. Sinecock, "Open the Gates of the Temple" (Knatt).
 Vocal duet—Messrs. Hall and Eaton, "Drink to Me Only With Thine Eyes" (Old English air).
 Anthem—The Choir, "Alpha and Omega" (Stainer). (Soloist, Miss E. Bull).
 Baritone—Mr. G. Gray, selected.
 Male quartet—Messrs. Eaton, Carpenter, Gray, and Hall, (a) "Lead, Kindly Light"; (b) "Fight the Good Fight" (arr. Stebbins).

- Soprano—Miss E. Bull, "Oh, Divine Redeemer" (Gounod).
 Baritone—Mr. W. J. Mason, "There is a Green Hill" (Gounod).
 Anthem—The Choir, "Incline Thine Ear" (Himmell). (Soloist, Mr. D. Hall).
 Contralto—Mrs. L. Sinecock, "O, Rest in the Lord" (Mendelssohn).
 Monologue—Mr. W. J. Mason, "The Legend Beautiful."
 Baritone—Mr. W. G. Carpenter, "God's Garden" (Lambert).
 Duet—Messrs. Hall and Eaton, "Watchman, What of the Night?" (Sargent).
 Anthem—The Choir, "He Watereth the Hills" (Simper). (Soloist, D. Hall).
 Organist, Mrs. L. Sinecock. Choirmaster, Mr. W. J. Mason.
 6.0: Children's Sunday service, conducted by Uncle Ernest, assisted by Cambridge Terrace Congregational Church Choir.
 7.0: Relay of evening service of St. Andrew's Presbyterian Church. Preacher, Rev. R. Howie, B.A. Organist and choirmaster, Mr. Frank Thomas.
 8.15 (approx.): Relay of band recital of the Wellington Municipal Tramways Band from His Majesty's Theatre. (Conductor, Mr. T. Goodall).
 God Save the King.

3YA, CHRISTCHURCH (306 METRES), SUNDAY, AUGUST 12.

- 9 a.m.: Result of All Blacks match in South Africa.
 3 p.m.: Afternoon session, selected studio items.
 4.30: Close down.
 5.30: Children's song service, conducted by Uncle David. Hymns by Mrs. Machin's choir.
 6.30: Relay of evening service from Christchurch Anglican Cathedral. Preacher, Bishop of Christchurch. Organist, Mr. J. C. Bradshaw. Mus. Doc.
 8.20 (approx.): Re-broadcast of 2YA, Wellington (relay of Municipal Tramways Band Concert from His Majesty's Theatre, Wellington).
 God Save the King.

4YA, DUNEDIN (463 METRES), SUNDAY, AUGUST 12.

- 9 a.m.: Town Hall chimes.
 Result of All Blacks match in South Africa.
 9.20: Close down.
 5.30: Children's song service, conducted by Big Brother Bill, assisted by members of the Y.W.C.A. Girls' Citizens' Club.
 6.30: Relay of service from Hanover Street Baptist Church. Preacher, Rev. E. S. Tuckwell, M.A. Choirmaster, Mr. H. P. Desmoulin. Organist, Mr. Upton Harvey.
 8.0: Sacred concert relayed from the church.
 9.15: Close down.

Monday, August 13

1YA, AUCKLAND (333 METRES), MONDAY, AUGUST 13.

SILENT DAY.

2YA, WELLINGTON (420 METRES)—MONDAY, AUGUST 13.

- 3 p.m.: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session—Aunt Gwen—Birthday greetings and stories by Aunt Gwen. Puzzles by Uncle Jeff. Pianoforte solos, Cousin Claudie. Songs by Cousin Clarice. Recitations, Cousin Molly.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. H. South, "Books, Grave and Gay."
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture—The Orchestra, "Rackozy" (Bela Beela).
 8.9: Soprano solo—Miss Jeanette Briggs, L.A.B., "When Celia Sings" (Moir).
 8.12: Instrumental trio—Symons-Elwood-Short Trio, "Trio" (Marx).
 8.22: Recital—Mr. A. Stanley Warwick, "Coriolanus's Speech" (Shakespeare).
 8.27: Baritone solos—Mr. John Prouse, a group of Frances Allitsen's songs—(a) "Not Quite Alone," (b) "Come Not When I Am Dead," (c) "Prince Ivan's Song," (d) "Roll of the Drums."
 8.39: Instrumental—The Orchestra, request number.
 8.47: Vocal trio—Ariel Singers, "A Song of Rest" (Walford Davies).
 8.50: Bass solos—Mr. J. M. Caldwell, (a) "Give a Man a Horse He Can Ride" (Head), (b) "The Turn of the Year" (Willeby).
 8.56: Instrumental—The Orchestra, "Ballet Music from Haiwatha" (Coleridge-Taylor).

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- 9.8: Weather forecast.
 9.10: Mezzo-contralto solos—Miss Ngaire Coster. (a) "Love's Whisper" (Willeby), (b) "Lullaby" (Keel).
 9.16: Tenor solos—Mr. Roy Hill, (a) "The Sea" (Quilter), (b) "The Roadside Fire" (Williams).
 9.22: Instrumental—The Orchestra, (a) "Alt Wien" (Godowsky), (b) "Caprice" (Moskowski).
 9.32: Recitals—Mr. A. Stanley Warwick, (a) "A Pair of Platonic" (Anon), (b) "Smithson's Party" ("The Bulletin").
 9.40: Soprano solos—Miss Jeanette Briggs, L.A.B., (a) "Synnovei Peid" (Kjerulf), (b) "The Robin's Song" (White).
 9.46: Vocal duet—Messrs. Roy Hill and J. M. Caldwell, "The Outpost Vigil" (Rivers).
 9.50: Rhapsody—The Orchestra, "Slavonic Rhapsody No. 2" (Dvorak).
 God Save the King.

3YA, CHRISTCHURCH (306 METRES), MONDAY, AUGUST 13.

- 3 p.m.: Afternoon session—Selected studio items.
 4.25: Sports results.
 6.0: Children's session—Scatterjoy, "A Night in Japan," by Scatterjoy. Song, "Let's go Travelling," Aunt Pat. Duologue, Cousins Joan and Billy, "Japanese Birthdays." Story, Scatterjoy, "A Peep into Quaint Japan." Song, Cousin Audrey, "The Geisha Song." Birthdays, question-box and verse. Recitation, Cousin Doris, "A Japanese Proposal." Story for the boys by Scatterjoy. Good night song by Cousin Kathleen.
 7.15: News session.
 7.30: Talk, illustrated by special gramophone records, "Esperanto," by Mr. R. O. Hateley.
 8.0: Chimes.
 Concert by the Christchurch Municipal Band, under the conductorship of Mr. A. J. Schnack, assisted by 3YA artists.
 8.1: March—Band, "Mt. Egmont" (Russell).
 8.8: Tenor solos—Mr. W. Bradshaw, (a) "I'll Sing Thee Songs of Araby" (Clay); (b) "Thora" (Adams).
 8.16: Humorous recital—Miss Naare Hooper, "The Dancing Partner" (description of professional girl partners comparing notes) (MS.).
 8.21: Selection—Band, "Pirates of Penzance" (Sullivan).
 8.41: Contralto solos—Mrs. D. W. Stallard, (a) "There's a Land" (Allitsen); (b) "Waiting" (Millard); (c) "Waiata Maori" (Hill).
 8.52: Hymn—Band, "Nearer, My God, to Thee" (Gordon).
 8.59: Weather forecast.
 9.1: Overture.
 9.5: Soprano solos—Mrs. P. S. Lawrence, (a) "A Thousand Years from Now" (Ball); (b) "A Romance" (Desert Song) (Romberg); (c) "Louise" (Charpentier).
 9.15: Waltz—Band, "Druid's Prayer" (Davieson).
 9.30: Recital—Miss Naare Hooper, "Peg o' My Heart" (MS.).
 9.35: Overture—Band, "Tancredi" (Rossini).
 9.50: Baritone solos—Mr. E. A. Dowell, (a) "Marguerite" (White); (b) "Schoolday Sweethearts" (Edwards).
 10.0: March—Band, "Advance Guards" (Alford).
 God Save the King.

4YA, DUNEDIN (463 METRES), MONDAY, AUGUST 13.

SILENT DAY.

Tuesday, August 14

1YA, AUCKLAND (333 METRES), TUESDAY, AUGUST 14.

- 3 p.m.: Afternoon session—Selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Selected studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's session—Uncle George, assisted by Old King Cole. Duet, Old King Cole and Cinderella, "Sea Chanties." Pianoforte solos, The Merry Fiddler, selections. Song, Old King Cole, "Billy Boy." Letters and birthdays. Recitation, Old King Cole, "The Yarn of the Nancy Lee." Duet, Old King Cole and Cinderella, "The Dancing Lesson." Story-time.
 7.15: News and market reports. Book review.
 7.45: Close down.
 8.0: Chimes.
 8.1: Relay of orchestral overture from Majestic Theatre Orchestra, under the conductorship of Mr. J. J. Whitford Waugh.

- 8.6: Contralto solos—Madame Irene Ainsley, (a) "In Haven" (Elgar); (b) "Where Corals Lie," from "Sea Pictures" (Elgar).
 8.12: Instrumental trio—Auckland Trio, "Humoresque and March" (Schumann).
 8.20: Tenor solo—Mr. Len. Wilson, "Maire, My Girl" (Aitken).
 8.24: Soprano solo—Miss Arini Rodgers, "Arise, O Sun" (Ronald).
 8.28: Organ record—"Serenade" (Drigo).
 8.31: Baritone solo—Mr. Walter Brough, "Border Ballad" (Cowan).
 8.35: Violin and piano—Miss Ina Bosworth and Mr. Cyril Towsey, "First Movement" from "Kreutzer Sonata" (Beethoven).
 8.41: Contralto solo—Madame Ainsley, "Happy Song" (Del Riego).
 8.45: Organ record—"Bells Across the Meadows" (Ketelby).
 8.48: Talk by Mr. A. B. Chappell, M.A., "Old New Zealand: Founding the Capital."
 9.3: Weather forecast.
 9.4: Relay of orchestral entr'acte from the Majestic Theatre.
 9.10: Tenor solo—Mr. Arthur Ripley, "An evening Song" (Blumenthal).
 9.14: Instrumental trio—Auckland Trio, "Waltz of the Flowers" (Tschalkowsky).
 9.22: Excerpts from "The Lily of Killarney" (Benedict), produced under the direction of Madame Irene Ainsley.

Cast:

- Eily O'Connor Miss A. Rodgers
 Hardress Oregan Mr. A. Ripley
 Miles Mr. L. Wilson
 Father Tom Mr. W. Brough
 Duet—Hardress and Father Tom—"The Moon has Raised."
 Solo—Miles, "It Is a Charming Girl I Love."
 Quartet—"Let the Farmer Praise His Ground."
 Solo—Eily, "In My Lone Mountain Valley."
 Duet—Eily and Hardress, "With this Treasure I Must Part."
 Solo—Miles, "Eileen Mavourneen."
 * Finale and chorus—"Hands that Taper Back."
 10.0: God Save the King.

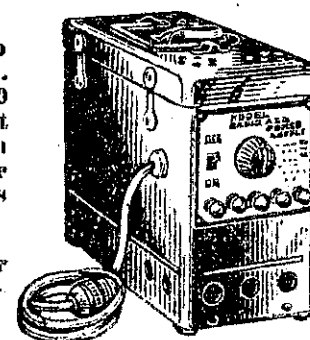
2YA, WELLINGTON (420 METRES)—TUESDAY, AUGUST 14.

- 3 p.m.: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session—Big Brother Jack, assisted by Cousins from the Trinity Methodist Sunday School in choruses and recitations.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—"For the Man on the Land," by a representative of the Agricultural Department.
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture—The Orchestra, "Poet and Peasant" (Suppe).
 8.11: Vocal duet—Mrs. Alice Harris and Miss Lily Mackie, "A Summer Evening" (Bendl).
 8.14: Pianoforte solos—Miss Myrtle Gibson, (a) "Romance" (Sibelius), (b) "Hark, Hark, the Lark" (Schubert-Liszt).
 8.22: Baritone solos—Mr. Len Barnes, four Indian love lyrics (Woodforde-Finden)—(a) "Kashmiri Song," (b) "Less Than the Dust," (c) "Pale Hands I Loved," (d) "Till I Wake."
 8.34: Steel guitar duos—Messrs. Berthold and Bent, (a) "Blue Skies" (Berlin), (b) "Among My Souvenirs" (Nicholls and Leslie).
 8.40: Contralto solo—Miss Lily Mackie, "Sands o' Dee" (Clay).
 8.44: Relay of organ solos by Mr. H. Temple White—(a) "Song of Melody" (Clegg), (b) "Urbs Beata" (Fantasia) (Faulkes).

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Programmes Continued

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- 8.54: Humour—Mr. Doug. Stark, "McKay" (Lauder).
 9.0: Weather forecast.
 9.2: Instrumental—The Orchestra, request item.
 9.10: Songs at the piano—Mr. Billy Hart, (a) "Mine, All Mine" (Stept), (b) selected, (c) selected.
 9.20: Steel guitar duos—Messrs. Berthold and Bent, (a) "Because I Love You" (Berlin), (b) "Hawaiian Dreams" (Maiple).
 9.26: Tenor solo—Mr. Arthur Coe, "The Brightest Day" (Martin).
 9.29: Humour—Mr. Doug. Stark, "The Ballad-Singer" (Hedley).
 9.35: Soprano solo—Mrs. Alice Harris, "Rose Softly Blooming" (Spohr).
 9.38: A Southern Rhapsody—The Orchestra, "Virginia" (Haydn Wood).
 9.50: Song cycle—The Orpheus Quartet, "The Pageant of Summer (Brahe)—Vocal quartet, Orpheus Quartet, "Flowers for You"; soprano solo, Mrs. Alice Harris, "What o'clock?"; contralto solo, Miss Lily Mackie, "Meadowsweet"; vocal duet, Mrs. Alice Harris and Mr. Len Barnes, "None So Pretty"; tenor solo, Mr. Arthur Coe, "Shy Mignonette"; baritone solo, Mr. Len Barnes, "Traveller's Joy"; vocal quartet, Orpheus Quartet, "Speedwell."
 10.10: Instrumental—The Orchestra, Dance Numbers.
 God Save the King.

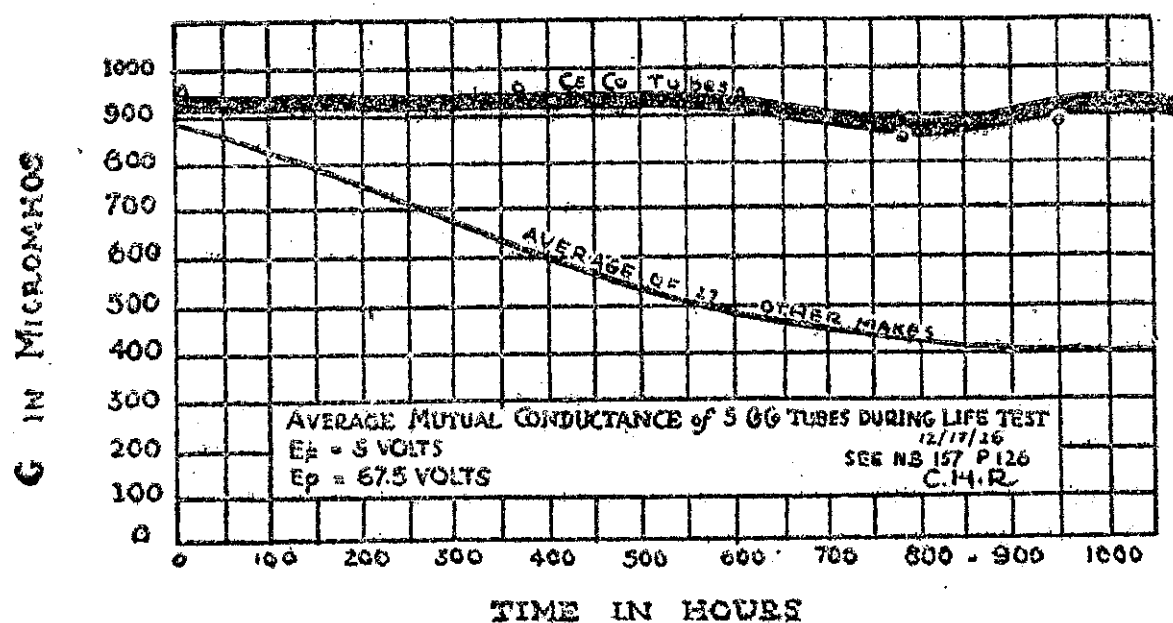
3YA, CHRISTCHURCH (306 METRES), TUESDAY, AUGUST 14.

SILENT DAY.

4YA, DUNEDIN (163 METRES), TUESDAY, AUGUST 14.

- 3 p.m.: Town Hall Chimes.
 3.1: Gramophone music.
 3.30: Social notes.
 3.40: Studio music.
 4.0: An address on "Art Needlework," by Miss Marguerite Puechegud (under the auspices of King Edward Technical College).
 4.15: Gramophone music.
 4.30: Close down.
 6.0: Town Hall chimes.
 6.1: Children's hour—Big Brother Bill. This programme will be provided by the Dunedin Scout Rovers, under Rover-Master Moore and Scout Commissioner Weeks.

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- 7.15: News session.
 7.30: An address, "A Health Talk," by Mr. C. W. Postgate, Physical Director at the Y.M.C.A.
 8.0: Town Hall chimes. Concert by the St. Kilda Band, under the direction of Mr. J. Dixon, and assisting artists.
 8.1: March—Band, "Senlac Abbey" (Brady).
 8.5: Baritone solos—Mr. Bert Rawlinson, (a) "Three Fishers Went Sailing" (Hullah); (b) "Friar of Orders Grey" (Reeve).
 8.11: Recital—Miss Anita Winkel, "Not Understood" (Bracken).
 8.16: Intermezzo—Band, "Soldiers' Chorus," from "Faust" (Gounod).
 8.21: Contralto solo—Miss Muriel Riley, "My Love is Like a Red, Red Rose" (Hinches).
 8.24: Tenor solos—Mr. L. E. Dalley, (a) "Dear Little Shamrock"; (b) "Barbara Allen" (Quilter).
 8.30: Selection—Band, "Irish Gems" (Hume).
 8.44: Soprano solo—Mrs. D. Carty, "Under the Deodar" (Monckton).
 8.47: Recitals—Mr. Lester Moller, (a) "The Seven Ages of Man" (Shakespeare); (b) "How to Attain Old Age" (Leacock).
 8.55: March—Band, "Rubenstein" (introducing Melody in F, arr. Bidgood).
 9.0: Weather forecast.
 9.3: Vocal duet—Mrs. D. Carty and Mr. Bert Rawlinson, "The Star of Robbie Burns."
 9.6: Waltz—Band, "The Druid's Prayer" (Davson).
 9.16: Contralto solos—Miss Muriel Riley, (a) "At Dawning" (Cadman); (b) "Doon the Burn" (Hook).
 9.23: Recitals—Miss Anita Winkel, (a) "Hide and Seek" (Burmer); (b) "Jim" (Belloc).
 9.28: Overture—Band, "The Bohemian Girl" (Balfe).
 9.38: Tenor solo—Mr. L. E. Dalley, "Reveille" (Olliver).
 9.41: Recital—Mr. Lester Moller, "The Lady from the West" (Meyers).
 9.46: Intermezzo—Band, "Minuet in G" (Beethoven).
 9.51: Soprano solos—Mrs. D. Carty, (a) "Believe Me If All Those Endearing Young Charms" (Moore).
 9.57: March—Band, "Guard of Honour" (Hames).
 10.1: God Save the King.

Wednesday, August 15

1YA, AUCKLAND (333 METRES), WEDNESDAY, AUGUST 15.

- 3 p.m.: Afternoon session—Selected Studio items.
 4.0: Literary selection by the Announcer.
 4.8: Selected studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's session—Uncle Tom. Uncle Tom will give a party, and the guests will sing, recite, and play. Letters and Birthdays. Stories by Uncle Tom.
 7.15: News and market reports.
 7.45: Talk on "Physical Culture," by Mr. Norman Kerr.
 8.0: Chimes.
 8.1: Relay of municipal organ recital from Town Hall, grand organ selections. Organist, Mr. Maughan Barnett.
 9.25: Lecture-recital—Mr. K. Atkinson, "Who's Who and What's What on the Gramophone."
 10.0: God Save the King.

2YA, WELLINGTON (420 METRES), WEDNESDAY, AUGUST 15.

SILENT DAY.

3YA, CHRISTCHURCH (306 METRES), WEDNESDAY, AUGUST 15.

- 3 p.m.: Afternoon session—Selected studio items.
 4.25: Sports results.
 6.0: Children's session—Uncle Peter and Mother Hubbard. Songs and greetings by Mother Hubbard. Recitations by Cousin Edith. Pianoforte solos by Cousin Herbert.
 7.15: Addington stock market report.
 7.30: News session.
 8.0: Chimes.
 8.1: Relay of orchestral music from the Strand Theatre Orchestra, under the direction of Mr. Harry Elwood. Excerpts from the musical comedy, "The Quaker Girl" will be presented by the Radiolian Quartet.
 8.10: Opening choruses—Radiolian Quartet, "Quakers' Meeting" (Monckton).
 8.17: Pianoforte solo—Miss Aileen Warren, (a) "Cradle Song" (Bramsgainger); (b) "Novellette in F, Op. 2, No. 1" (Schumann).



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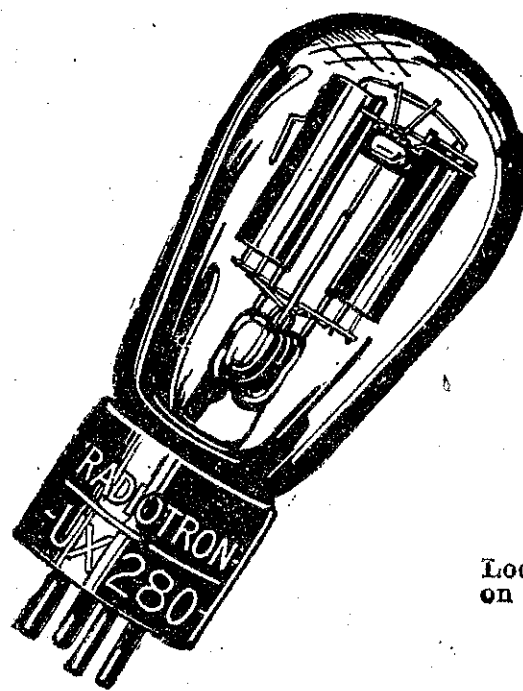
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Programmes Continued

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- 8.25: Soprano solo and quartet—Mrs. Claris Shaw and Radiolian Quartet, (a) "O Time!" (Monckton); (b) "A Runaway Match" (Monckton).
- 8.32: Recitals—Mr. A. H. Todd, (a) "Shut Up" (Lyndberg); (b) "Fag Ends" (Fox).
- 8.38: Orchestral selections—The Studio Orchestra (Mr. Harold Beck, conductor), "Second Sullivan Selection" (Sullivan).
- 8.50: Contralto solo and quartet—Miss Mildred Russell and Radiolian Quartet, (a) "A Quaker Girl" (Monckton); (b) "Tip Toe" (Monckton).
- 8.54: Weather forecast.
- 8.56: Relay of orchestral music from the Strand Theatre Orchestra.
- 9.2: Bass solo, followed by tenor solo and chorus—Mr. W. J. Richards, Mr. Gregory Russell, and Radiolian Quartet, (a) "Jeremiah" (Monckton); (b) "Come to the Ball" (Monckton).
- 9.10: Clarionet soli—Mr. S. E. Munday, (a) "Spring Song" (Mendelssohn); (b) "Spring's Awakening" (Bach).
- 9.20: Quartet and contralto solo—Radiolian Quartet and Miss Mildred Russell, (a) "It's the Wedding Day" (Monckton); (b) "Little Grey Bonnet" (Monckton).
- 9.27: Orchestral selections—The Studio Orchestra, (a) "Intermezzo," from "Cavalleria Rusticana" (Mascagni); (b) "Tout Tienne Valse" (Strauss).
- 9.39: Recital—Mr. A. H. Todd, "Monty on Fashions" (Hayes).
- 9.44: Quartet, soprano and tenor duet, and final chorus—The Radiolian Quartet, Mrs. Shaw and Mr. Gregory Russell and Radiolian Quartet, (a) "Barbizon" (Monckton); (b) "A Wilderness" (Monckton); (c) "Love, I Have Met You" (Monckton).
- 9.53: Orchestral selection—Studio Orchestra, "Hungarian Lutspiel" (Kela Bela).
God Save the King.

4YA, DUNEDIN (463 METRES), WEDNESDAY, AUGUST 15.

- 2.45 p.m.: Relay description of inter-provincial Rugby match, Manawhenua v. Otago.
- 5.0: Close down.
- 7.0: Town Hall chimes.
- 7.1: Request gramophone concert.
- 7.40: News session—Burnside stock sales report.
- 8.0: Town Hall chimes.
- 8.1: Relay of orchestral music from the Octagon Theatre Orchestra, under the conductorship of Monsieur de Rose, Mus.Bac.
- 8.11: Light baritone solos—Mr. J. B. McConnell, (a) "Shurr-up" (Grey); (b) "After Dawn" (O'Hagan).
- 8.18: Saxophone solo—Mr. J. McCaw, "Suite Orientale" (Gurewitch).
- 8.21: Light mezzo-soprano solo—Miss Betty Roberts, "If Winter Comes" (Tennent).

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- 8.25: Humorous recitals—Miss Nancy Ayson, (a) "Japanese Vase" (Anon.); (b) "Two Schoolgirls" (Anon.).
- 8.33: Popular numbers—Dunedin Banjo Trio, (a) "Put Your Arms Where They Belong" (Ackwell); (b) "Just a Cottage Small" (Hanley); (c) "Gimme a Little Kiss" (Pinkard).
- 8.45: Light baritone solo—Mr. J. B. McConnell, "The Fact Is" (Gray).
- 8.49: Relay of orchestral music from the Octagon Theatre.
- 9.0: Weather forecast.
- 9.3: Soprano solos—Miss Thelma Blackman, (a) "Some Sunny Day" (Berlin); (b) "After I Say I'm Sorry" (Lyman).
- 9.10: Saxophone solos—Mr. J. McCaw, (a) "Crazy Bone Rag" (Foster); (b) "Charmaine" (Rapee and Pollock).
- 9.16: Scottish song—Mr. Buster Brown, "Wea'l go Hame the Same Way" (Lauder).
- 9.20: Humorous recital—Miss Nancy Ayson, "Rebecca."
- 9.25: Light mezzo-soprano solos—Miss Betty Roberts, (a) "Down Where the Big Bananas Grow" (Barron); (b) "Spain" (Jones).
- 9.32: Popular numbers—Dunedin Banjo Trio, (a) "Honolulu Moon" (Lawrence); (b) "Pal of My Cradle Days" (Plantadosi); (c) "High, Diddle, Diddle" (Coon); (d) "Just a Bird's-eye View" (Donaldson).
- 9.44: Scottish songs—Mr. Buster Brown, (a) "Jean McNeil" (Lauder).
- 9.52: Orchestral selection.
- 9.57: Light soprano solo—Miss Thelma Blackman, "In a Little Garden" (Ivla).
- 10.0: Close down.

Note.—The second half of the programme is subject to alteration owing to a relay of portion of "Elijah," as performed by the Dunedin Choral Society. The vocalists include Madame Winnie Fraser (Oamaru), Miss Mabel Esquillant (Christchurch), Mr. L. E. Dalley (Dunedin), and Mr. Wm. Watters (Palmerston).

Thursday, August 16

1YA, AUCKLAND (333 METRES), THURSDAY, AUGUST 16.

- 3 p.m.: Afternoon session—Selected studio items.
- 4.0: Literary selection by the Announcer.
- 4.8: Selected studio items.
- 4.25: Sports results.
- 4.30: Close down.
- 6.0: Children's session—Peter Pan. Recitation, Cousin Doreen, "Mr. Bear." Banjo solo, Cousin Ross, "My Blue Heaven." Song, Cousin Keith, "Mother Macree" (Ball). Letters and birthdays. Banjo solo, Cousin Ross, "Hawaiian Melodies." Recitation, Cousin Marie, "Silver-plated Teapot." Story-time.
- 7.15: News and market reports.
- 8.0: Chimes.
- 8.1: Relay of orchestral overture from Strand Theatre Orchestra, under the conductorship of Eve Bentley.
- 8.11: Vocal quartet—Mr. Barry Coney's Quartet, "How Dear to Me the Hour" (Stanford).
- 8.15: Humorous sketch—Griffiths Duo, "In a Tea Shop."
- 8.20: Contralto solo—Miss Martha Williamson, "Caro mio Ben" (Giordani).
- 8.24: Instrumental trio—Auckland Trio, "First Movement, Trio in E Flat" (Beethoven).
- 8.32: Baritone solo—Mr. H. Barry Coney, "Don Juan's Serenade" (Tschai-kowsky).
- 8.36: Flute solo—Mr. Victor Bedford, "Song Without Words" (Clinton).
- 8.40: Soprano solo—Miss Dorothy Youd, "Valse Song," from "Maid of the Mountains" (Tate).
- 8.44: Pianoforte solo—Mrs. R. A. Singer, "In a Chinese City" (Neumann).
- 8.48: Talk on "Great Authors," Mr. Culford Bell.
- 8.58: Weather forecast.
- 9.0: Relay of orchestral entr'acte from Strand Theatre.
- 9.10: Tenor solos—Mr. G. C. Queen, (a) "Where'er You Walk" (Handel); (b) "If I Might Come to You" (Squire).
- 9.18: Humorous sketch—Griffiths Duo, "Fishing."
- 9.23: Contralto solo—Miss M. Williamson, "Caller Herrin'" (Old Scottish).
- 9.27: Flute solos—Mr. V. Bedford, (a) selection from "Il Trovatore," arr. Prout; (b) "Killarney" (Balfe).
- 9.35: Baritone solo—Mr. H. Barry Coney, "When in Death I Shall Calm Recline" (traditional).
- 9.39: Hawaiian instrumental—Record, (a) "Arabian Dreams" (Maple); (b) "Along the Way to Waikiki" (Gumble).
- 9.45: Soprano solo—Miss D. Youd, "Lavender Lane" (Samuel).
- 9.49: Instrumental trio—Auckland Trio, "Chopiniana" (arr. Roberts).
- 9.57: Vocal quartet—Mr. Barry Coney's Quartet, "Sleep, Dear One, Sleep" (Wheeler).
- 10.0: God Save the King.

Note.—During the course of the above programme there will be a relay of vaudeville items from the Embassy Theatre.

Programmes Continued

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2YA WELLINGTON (420 METRES)—THURSDAY, AUGUST 16.

- 3 p.m.: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session, Aunt Gwen, assisted by five little girl cousins and one big boy cousin, Cousin Claude, who will sing in Maori and tell a tale of Maoriland. The little girls will sing, recite and play a piano-forte duet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette, Mr. L. Ashcroft Edwards, "Of Interest to Motorists."
 8.0: Chimes of the G.P.O. clock.
 Studio concert by the Wellington Municipal Tramways Band (under the conductorship of Mr. T. Goodall) and assisting artists.
 8.1: Overture and waltz, band, (a) "Morning, Noon and Night" (Suppe); (b) "Golden Grain" (Trussell).
 8.13: Harmony, Mellow Fellows, "Romany Love."
 8.17: A little nonsense, the Same Old Fellow, "Stories" (original).
 8.21: Refreshment, the Baritone Fellow, "The Tavern Song" (Fisher).
 8.24: Selections, band, (a) "Gipsy Love" (Lehar); (b) Idyll, "A Forest Woo-ing" (Ancliffe).
 8.35: Tenor solo, the Tenor Fellow, "The secret" (Scott).
 8.38: Recitals, Miss Violet Wilson, (a) "Little Bateese" (Drummond); (b) "Settling Up" (Anon).
 8.43: Vocal duet, Two Fellows, "Meet Me at Twilight" (Harris).
 8.46: Bass solo, the Low Note Fellow, "My Old Shako" (Trotter).
 8.50: Concert zither solo, Mr. E. D. Bernstein, "The Bridal Polka" (Schoieff-ner).
 8.55: An open question, All the Fellows, "Who's Your Who."
 8.58: Weather forecast.
 9.: Overture and prelude, band, (a) "Ruy Blas" (Mendelssohn); (b) "Rachmaninoff" (Rimmer).
 9.10: Mezzo-soprano solos, Mrs. Norman Izett, (a) "I Did Not Know" (Trotter); (b) "Loves a Merchant" (Carew).
 9.17: Foreign language, the Eloquent Fellow, "Sentimental Bloke" (Dennis).
 9.22: Scottish song, the Baritone Fellow, "The Wee Hoose Among the Heather" (Lauder).
 9.25: Concert zither solo, Mr. E. D. Bernstein, "The Wedding March" (Bock).
 9.30: Dance special, the Mellow Fellows, "That Saxophone Waltz" (Fisk).
 9.33: Selection and fox-trot, the band, (a) "The Arcadians" (Douglas); (b) "Me and My Shadow" (Jolson).
 9.43: Tenor solo, the Tenor Fellow, "I Know a Garden of Sunshine" (Lohr).
 9.46: Humour, Miss Violet Wilson, "Wedding Whispers" (Anon).
 9.51: Nautical, the Bass Fellow, "Nelson's Gone a'Sailing" (Lohr).
 9.55: March, band, "La Grenadier" (Pares).
 God Save the King.

3YA CHRISTCHURCH (306 METRES), THURSDAY, AUGUST 16.

- 3.0 p.m.: Afternoon session—selected studio items.
 4.0: Talk on "The Work of the Plunket Society" by one of the Plunket nurses.
 4.25: Sports results.
 6.0: Children's session—Chuckle and Aunt Pat. Opening song and birth-day verses: Bell solos, "The Bells of St. Michael's Tower" and "Ring the Bell, Watchman." Storytime, "The Adventures of Alice in Wonderland" and "The Young Fur Traders." Whistling solo, "The Bird Song." Birthday greetings: Songs by Chuckle and Aunt Pat, "The Complete Story of Three Blind Mice," "Only Seven," "London Bridge is Broken Down," "There Were Three Jolly Travellers," "Mandy and the Spiders." Closing chorus, "Come Along, You Little Ones."
 7.15: News session.
 7.30: Talk by Mr. Battersby, "Popular Electricity."
 8.0: Chimes. Irish concert and relay of boxing matches.
 8.1: Opening carillon of bells, an old Irish melody, "Believe Me if all Those Endearing Young Charms."
 8.6: Soprano solo, followed by tenor and baritone duet, Madame Gower-Burns and Messrs. Harold Prescott and Olive Hindle, (a) "Achal by the Sea" (Irish folk song), (Foote); (b) "Mother Machree" (Alcott and Ball).
 8.13: Violin solo, Miss Irene Morris, "Romance" (Wieniowski).
 8.18: Contralto solo, Mrs. Ann Harper, "The Harp That Once" (Traditional).
 8.22: Instrumental trio, Christchurch Broadcasting Trio, "Andante and Finale from Trio No. 2" (Reinecke).
 8.32: Recital (to music), and Irish humour, Mr. L. T. J. Ryan, (a) "A Friend in Need" (MS), (b) "Father O'Hara" (Jackson).
 8.38: Baritone solo, followed by soprano and baritone duet, Mr. Clive Hindle and Madame Gower-Burns and Mr. Clive Hindle, (a) "The Min-strel Boy" (Traditional), (b) "Eileen Alannah" (Thomas).

- 8.46: Instrumental trios—Christchurch Broadcasting Trio, (a) "The Last Rose of Summ'r" (MS), (b) "Off in the Stilly Night" (MS).
 8.54: Tenor solo and vocal quartette, Mr. Harold Prescott, Grand Opera Quartet, (a) "The Snowy-Breasted Pearl" (Robinson), (b) "The Dear Little Shamrock" (Cherry).
 9.0: Relay description from Municipal Concert Chamber of boxing matches held under the auspices of the Christchurch Sports Club.
 God Save The King.

4YA DUNEDIN (463 METRES), THURSDAY, AUGUST 16. SILENT DAY.

Friday, August 17

1YA AUCKLAND (333 METRES), FRIDAY, AUGUST 17.

- 3 p.m.: Afternoon session—selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Selected studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's session conducted by Nod and Aunt Jean—Song, Aunt Jean; pianoforte solo, "To a Firefly," Cousin Fred; story for tiny tots; letters and birthdays; song, Aunt Jean, "Plumstones"; talk, Mrs. Culford Bell, "A Trip to Norfolk Island"; pianoforte solo, Cousin Fred, "Snow Drops"; bed-time stories.

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- 7.15: News and market reports.
 8.0: Chimes. Special programme of vocal items by the Savoy Octette.
 8.1: Orchestral selection, "Egmont Overture" (Beethoven).
 8.9: Vocal octette, Savoy Octette, "Land of Hope and Glory" (Elgar).
 8.14: Soprano solo, "Coo" (from "The Country Girl" (Monckton).
 8.18: Tenor solo, "Jack's the Boy" (from "The Glesha") (Jones).
 8.22: Vocal trio, "Three Little Maids from School" (from "The Mikado" (Sullivan).
 8.26: Instrumental trio—Auckland Trio, "Finale From Third Trio" (Haydn).
 8.35: Tenor and baritone duet, "The Battle Eve" (Bonheur).
 8.40: Humour, Mr. J. F. Montague, "Mr. Squeers" (Dickens).
 8.46: Orchestral selection, "Hungarian Rhapsody No. 2" (Liszt).
 8.54: Chorus, "Carry Me Back to Old Virginny" (Bland).
 9.0: Weather forecast.
 9.1: Soprano solo, "The Pipes of Pan are Calling" from ("The Arcadians") (Monckton).
 9.5: Scena, "Entrance of the Mikado and the Mikado's Song" (Sullivan).
 9.11: Instrumental trio, Auckland Trio, selection from "Samson and Delilah" (Saint-Saens).
 9.21: Humour, Mr. J. F. Montague, (a) "The Old, Old Story," (b) "The Way to Laugh."
 9.31: 'Cello solo, Miss Molly Wright, "Traumerei" (Schumann).
 9.36: Baritone solo, "A Jovial Monk Am I" ("La Poupee" (Audran).
 9.41: Contralto solo, "Now Sleeps the Crimson Petal" (Quilter).
 9.46: Orchestral selections, (a) "Liebestraum" (Liszt); (b) "Kamennio-Ostrow" (Rubenstein).
 9.54: Chorus, "Hunting Chorus" (from "Dorothy") (Cellier).
 10.0: God Save the King.

2YA, WELLINGTON (420 METRES), FRIDAY, AUGUST 17.

- 3 p.m.: Chimes of the G.P.O. clock.
 3.1 Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0: Close down.
 6.0: Children's session, Uncle Ernest. Recitations by Cousins Joyce and Dulcie, songs by Cousin Betty, and a pianoforte solo, "The Musical Box," by Cousin Babs.
 7.0: News session, market reports and sports results.
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture, the Orchestra, "Barber of Seville" (Rossini).
 8.11: Vocal duet, Miss Gretta Stark and Mr. Ray Kemp, "Of Fairy Wand" (from "Maritana") (Wallace).
 8.15: Instrumental trios, Symons-Ellwood-Short Trio, (a) "Colonial Song" (Grainger); (b) "Slavonic Dance" (Dvorak).
 8.25: Tenor solo, Mr. Frank Skinner, "A Castilian Lament" (Del Reigo).
 8.29: Humour, Mr. Geo. Peek, "Magazine for Men" (Dowling).
 8.36: Grand opera selection, the Orchestra, "Rigoletto" (Verdi).
 8.44: Baritone solos, Mr. Ray Kemp, (a) "Even Bravest Heart" (from "Faust") (Gounod); (b) "In Happy Moments" (from "Maritana") (Wallace).
 8.52: Soprano solo, Miss Gretta Stark, "With Verdure Clad" (from "Creation") (Haydn).
 8.56: Instrumental, the Orchestra, request item.
 9.4: Weather forecast.
 9.6: Vocal duet, Miss Gretta Stark and Mr. Frank Skinner, "A Night in Venice" (Lucantoni).
 9.10: Instrumental, the Orchestra, four dances from "The Rebel Maid," (a) "Jig," (b) "Gavotte," (c) "Graceful Dance," (d) "Villager's Dance."

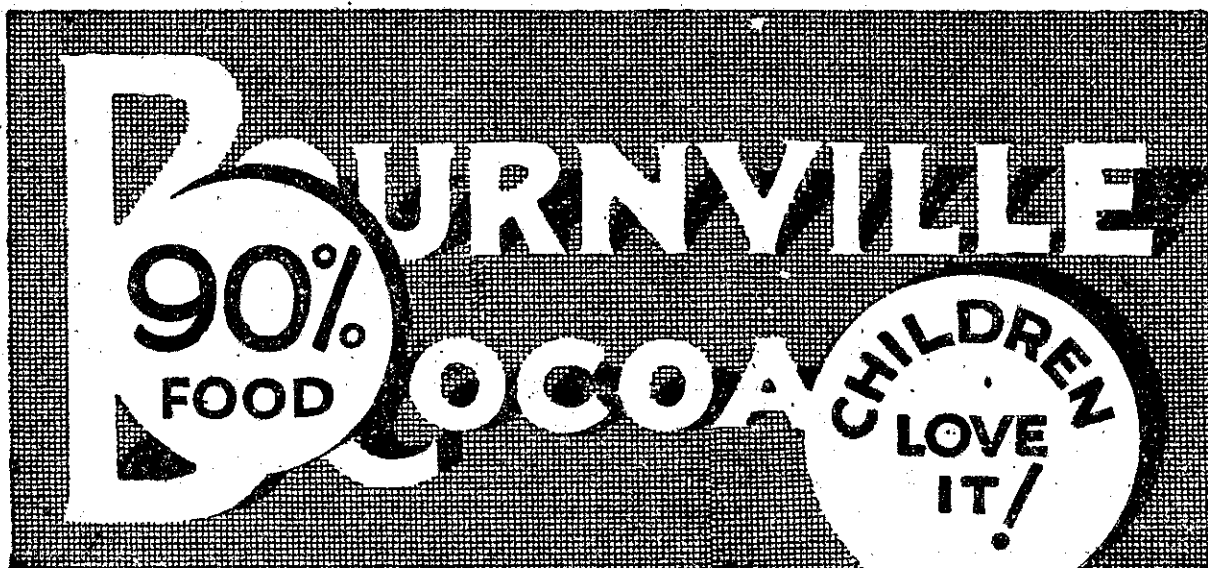
- 9.20: Vocal quartet, Etude Quartet, "See Our Oars with Feathered Spray" (Stevenson).
 9.24: Pianoforte solos, Miss Edna Sneddon, (a) "Andante" (Beethoven); (b) "Etude" (Chopin).
 9.32: Contralto solo, Miss Rita Arnold, "Habanera" (from "Carmen") (Bizet).
 9.36: Humour, Mr. Geo. Peek, "I had a Little Garden" (Hanray).
 9.43: Seena, Etude Quartet, "He has Called Her" (from "The Legend of Nerbudda") (Both).
 9.47: Vocal quartet, Etude Quartet, "Huntsman's Chorus" (from "Der Freischütz") (Webber).
 9.50: Instrumental, the Orchestra, "Count of Luxembourg" (Lehar).
 God Save the King.

3YA, CHRISTCHURCH (306 METRES), FRIDAY, AUGUST 17.

- 3 p.m.: Afternoon session—Selected studio items.
 4.25: Sports results.
 4.30: Close down.
 6.0: Children's hour—Big Brother. Opening talk and story for Tiny Tots, Big Brother. Music by the Avonside Mouth-organ Trio. Story by Aunt Pat, "Alice in Wonderland." Chorus by "Merry Singers" from Y.M.C.A., "We Run Them In." Fun and games by the Captain. Chorus, "Humming," by "The Merry Singers." Birthdays. Choruses, "The Merry Singers," "The Orderly Song" and "The Mermaid." Story for the big boys by Big Brother.
 Good-night song, "Merrily We Roll Along."
 7.15: News session.
 7.30: Football review by Mr. J. K. Moloney.
 8.0: Chimes.
 8.1: Rebroadcast of orchestral overture from 2YA, Wellington (conditions permitting).
 8.6: Soprano solos—Miss Hilda Hutt, (a) "Annie Laurie" (Lemak); (b) "Ave Maria" (Kahn).
 8.13: Pianoforte solo—Miss Dorothy Davies, "Ballade in G Minor" (Chopin).
 8.23: A sketch (in total darkness)—Miss Winifred Smith and Mr. A. Burton, "Light and Shade" (Peach).
 8.29: Tenor solos—Mr. T. G. Rogers, (a) "Madelina" (James); (b) "Once Again" (Sullivan).
 8.36: 'Cello solos—Mr. Harold Beck, (a) "Nina" (Pergolese); (b) "The Dance" (Rossini).
 8.46: Soprano and tenor duet—Miss Hilda Hutt and Mr. T. G. Rogers, "Oh, that We Two were Maying" (Smith).
 8.50: Instrumental trio—Christchurch Broadcasting Trio, "Andante and Scherzo" (Mendelssohn).
 9.0: Vocal quartet—Dulcet Quartet, "Where My Caravan has Rested" (Lohr).
 9.3: Weather forecast.
 9.5: Overture.
 9.9: Contralto solos—Miss Nellie Lowe, (a) "Douglas Gordon" (Kellie); (b) "Love's Coronation" (Aylward).
 9.16: Banjolin solo with saxophone obbligato—Messrs. East and Wilkinson, "Flag Lily" (Holt).
 9.21: Sketch (a proposal during lunch)—Miss Winifred Smith and Mr. A. Burton, "A Matter of Course" (Peach).
 9.27: Instrumental trios—Christchurch Broadcasting Trio, (a) "Dialogue" (Constallat); (b) "Spanish Dance, No. 4" (Moskowski).
 9.37: Baritone solos—Mr. A. G. Thompson, (a) "Son of Mine" (Wallace); (b) "The Star" (Foster).
 9.44: Trombone solo and marimba obbligato—Messrs. Williams and Morrish, "Lay My Head Beneath a Rose" (Madison).
 9.49: Vocal quartet—Dulcet Quartet, "Moonlight" (Faning).
 9.53: Dance music—Williams's Dance Band, Blues, "Without You, Sweetheart" (De Sylva), with vocal refrain by Mr. A. E. Williams.
 Dance music at intervals until 11 p.m.
 11.0: God Save the King.

4YA, DUNEDIN (463 METRES), FRIDAY, AUGUST 17.

- 3 p.m.: Town Hall chimes.
 3.1: Gramophone music.
 3.15: Talk on "Fashions," by Miss Buccleuch, of the D.S.A., Ltd.
 3.30: Relay of afternoon-tea music from the Savoy.
 3.45: Studio music.
 4.0: Relay of music from the Savoy.
 4.15: Gramophone music.
 4.30: Close down.
 6.0: Town Hall chimes.
 6.1: Children's session—Aunt Sheila and Big Brother Bill. The entertainment part of this programme will be provided by Mr. Jesse Benfell, and will comprise humorous recitations suitable for children, with a number of examples of poliphony.



Programmes Continued

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- 7.15: News session.
- 8.0: Town Hall chimes.
- 8.1: Orchestral selection.
- 8.10: Mezzo-soprano solos—Miss Molly Vickers, (a) "Killarney" (traditional); (b) "I'm Longing for the Spring" (Morris).
- 8.16: Pianoforte solo—Mrs. Ernest Drake, "Caprice" (Paganini-Schumann).
- 8.19: Recital—Miss Sheila Neilson, "The Girl on the Stairs" (Anon.).
- 8.24: Baritone solo—Mr. L. M. Cachemaille, "O, Lovely Night" (Ronald).
- 8.27: Cornet solos—Mr. G. J. Christie, (a) "Intermezzo," from "Cavalleria Rusticana" (Mascagni); (b) "In an Old-fashioned Town" (Squire).
- 8.34: Mezzo-soprano solo—Miss Molly Vickers, "We'd Better Bide a Wee" (Claribel).
- 8.37: Recitals—Miss Sheila Neilson, (a) "Packing" (Anon.); (b) "The Norman Baron" (Longfellow).
- 8.47: Baritone solos—Mr. L. M. Cachemaille, (a) "In Summer-time on Bredon" (Peel); (b) "Duna" (McGill).
- 8.53: Cornet solo—Mr. G. J. Christie, "Lucille" (Code).
- 9.0: Weather forecast.
- 9.2: Relay of dance music from the Savoy—Alf. Carey and his orchestra.
- 10.2: Close down.

Saturday August 18

1YA, AUCKLAND (333 METRES), SATURDAY, AUGUST 18.

- 2.45 p.m.: Relay description of Rugby football match from Eden Park. (Announcer, Mr. W. J. Meredith.)
- 4.30: Close down.
- 6.0: Children's session, conducted by Cinderella. Duet (piano), Cousins Winnie and Lona, "Hungarian Dance" (Brahms). Song, Cousin Ngaere, "Hoea Ra." Pianoforte solo, Cousin Winnie, "Romance" (Rakof). Letters and birthdays. Jokes and conundrums by Cinderella. Piano duet, Cousins Winnie and Lona, "Dance Polish." Vocal duet, Cousins Ngaere and Peter, "Come to the Fair" (Easthope Martin). Bedtime stories.
- 7.15: News and sports results.
- 8.0: Chimes.
- 8.1: Relay of orchestral overture from Prince Edward Theatre Orchestra, under the direction of Mr. Ernest Beacham.
- 8.11: Excerpts from "The Country Girl" (Monckton), Miss Alma McGruer and the Lyric Quartet, (a) "Boy and Girl Duet"; (b) "Chick, Chick," duet; (c) "Chick, Chick," chorus.
- 8.21: Wurlitzer organ record—"Trail of Dreams" (Klages).
- 8.25: Tenor solo—Mr. H. Richards, "The Secret" (Scott).
- 8.29: Humour—Mr. A. McElwain, some humour.
- 8.35: Bass solo—Mr. E. Thomas, "Farewell in the Desert" (Adams).
- 8.39: Relay of orchestral entr'acte from Prince Edward Theatre.
- 8.49: Vocal duet—Miss A. McGruer and Mr. Ripley, "Supposin', Now" (Rosette).
- 8.54: Concerted item—Miss A. McGruer and Lyric Quartet, "By the Saskatchewan" (Hume).
- 9.0: Weather forecast.
- 9.1: Wurlitzer organ record—"It Made You Happy" (Donaldson).
- 9.5: Vocal duet—Messrs. Thomas and McElwain, "Great Scott" (Anusser).
- 9.10: Relay of dance music from Dixieland Cabaret Orchestra, under Mr. Harry Neilsen.
- 11.0: God Save the King.

2YA, WELLINGTON (420 METRES), SATURDAY, AUGUST 18.

- 3 p.m. Chimes of the G.P.O. clock.
- 3.1 Relay description of Auckland v. Wellington Rugby football match from Athletic Park. Announcer Mr. C. Lamberg.
- 6.0 Children's session, Uncle Toby and Aunt Gwen, stories, birthday greetings and a visit to the engine-room of a big ship.
- 7.0 News session, market reports and sports results.
- 8.0: Chimes of the G.P.O. clock.
- 8.1: Overture, the Orchestra, (a) "Ball Scene" (Drdla); (b) "Grande Galop" (Liszt).
- 8.11: Vocal quartet, Melodie Four, "Stars of the Summer Night" (Anon.).
- 8.20: Tenor solos, Mr. Sam Duncan, (a) "Of a' the Airts the Winds Can Blaw" (Trdtl.); (b) "Diane" (Rapee and Pollock).
- 8.26: Song suite, the Orchestra, "Haydn Woods Songs, (a) "Khaki and Gold." (b) "A Leafland Lullaby," (c) "I Love Your Eyes of Grey," (d) "Roses of Picardy," (e) "There's a Song Down Every Roadway," (f) "Jimmy Sale Rag."
- 8.36: Humorous sketch, Miss G. Shepherd and Mr. W. McKeon, "Just Like a Woman" (Collins).
- 8.46: Hits and harmonies, Glad Idlers, "Side by Side" (Woods).

- 8.50: Novelty, "Vermont," "Bird and Animal Imitations."
- 8.54: Instrumental, the Orchestra, request item.
- 9.6: Weather forecast.
- 9.8 Baritone and quartet, Mr. R. S. Allwright and Melodie Four, "In a Monastery Garden" (Ketelby).
- 9.12 Selection, the Orchestra, "Tell Me More" (Gershwin).
- 9.22 Light vocal solo, Glad Idlers, "Oh, Doris, Where Do You Live" (Kahn).
- 9.26: Mondola solos, Mr. Lad Haywood, (a) "Barcarolle" (from "Tales of Hoffmann") (Offenbach); (b) "Here's Luck" (Taylor).
- 9.32: Tenor solos, Mr. Frank Bryant, (a) "Gift of the Gods" (Sterndale Bennett); (b) "A Little Coon's Prayer" (Hope).
- 9.38: Novelty, the Orchestra, "Lilting Lucia."
- 9.44: Vocal duet, Messrs. S. Duncan and R. S. Allwright, "Fickle-Hearted Mimi" (Puccini).
- 9.48: Humour, Miss G. Shepherd and Mr. W. McKeon, "A Night of Horror" (Peach).
- 9.52: Bass solo, Mr. W. W. Marshall, "A Thousand Leagues Under the Sea" (Petrie).
- 9.56: Novelty, "Vermont," "Bird and Animal Imitations."
- 10.0: Vocal quartet, Melodie Four, "Tom, Tom, the Piper's Son" (Kendall).
- 10.3: Instrumental, the Orchestra, Dance Numbers, (with vocal choruses).
- 10.13: Dance programme.
- 11.0 Close down.

3YA, CHRISTCHURCH (306 METRES), SATURDAY, AUGUST 18.

- 2.45 p.m. Relay description of Rugby football match from Lancaster Park.
- 6.0: Children's session—Aunt May and Uncle Sam. Songs and music by Aunt May. Stories and jokes by Uncle Sam. Mouth-organ solos by Cousin Roy. Songs by Cousin Elma.
- 7.15: Sports results.
- 8.0: Chimes.
- 8.1: Overture—Rebroadcast of 2YA, Wellington.
- 8.6: Vocal quartet—Christchurch Male Quartet, "Come Where My Love Lies Dreaming" (Dicks).
- 8.10: Mouth-organ solos—Mr. Harry Rowe, (a) "Negro Dances" (MS.); (b) "Pack Up Your Troubles in Your Old Kit Bag" (with chorus).
- 8.16: Tenor sings duet with himself—Mr. Percy Nicholls sings with gramophone record of his own voice, (a) "Vale" (Russell); (b) "Ave Maria" (with violin obbligato) (Schubert).
- 8.23: Hawaiian ukulele and steel guitars (trios and solos)—Miss Elaine Moody's Hawaiian Instrumental Trio, (a) trio, "Dreamy Nights in Honolulu" (own arrangement); (b) steel guitar solo, "Laughing Rag" (own arrangement); (c) trio, "Hawaiian Twilight" (own arrangement).
- 8.32: Bass solo, followed by male quartet—Mr. Jas. Filer and Christchurch Male Quartet, (a) "The Bugler" (Pinsuti); (b) "Where Are You Going To, My Pretty Maid?" (Pinsuti).
- 8.37: A piano and two boys—Messrs. Chas. Lawrence and Les. Grummit, piano syncopations and vocal melodies.
- 8.47: Instrumental trio—Christchurch Broadcasting Trio, "Rondo Finale" (Reissiger).
- 8.53: Recital—Mr. Jack Birch, "Hard Luck, Henry" (Service).
- 8.57: Tenor solo, followed by vocal quartet—Mr. L. C. Quane and Christchurch Male Quartet, (a) "Rosebud" (Drummond); "Comin' Thro' the Rye" (Scottish).
- 9.4: Scottish songs—Mr. Bracey Wilson, (a) "John, Put Your Trousers On" (Williams); (b) "I Saw Peter Henry Home" (Scott).
- 9.12: Weather forecast.
- 9.13: Overture.
- 9.17: Male quartet, followed by tenor solo—Christchurch Male Quartet and Mr. Ernest Rogers, (a) "Juanita" (Norton); (b) "Sympathy" (Marshall).
- 9.25: Mouth-organ solos—Mr. Harry Rowe, (a) "Honolulu Moon" (MS.); (b) "It's a Long, Long Way to Tipperary" (with vocal chorus) (MS.).

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- 9.31: Recitals, history and philosophy—Mr. Jack Birch, (a) "Barbara Frietche" (Whittier); (b) "A Good Sport" (MS.).
- 9.37: Instrumental trios—Christchurch Broadcasting Trio, (a) "Cantabile" (Widor); (b) "Hungarian Dance" (Brahms).
- 9.47: A piano and two boys—Messrs. Chas. Lawrence and Les. Grummitt, piano syncopations and vocal melodies (MS.).
- 9.57: Baritone solo, followed by vocal quartet—Mr. P. Angus and Christchurch Male Quartet, (a) "Under the Hammer" (Arundale); (b) "Lorena" (Webster).
- 10.4: Hawaiian ukulele and steel guitar trios and solos—Miss Elaine Moody's Hawaiian Instrumental Trio (vocal solos by Miss Elaine Moody), (a) "Hanalei Bay" (MS.); (b) "Spanish Air"; (c) trio, "To-night You Belong to Me" (MS.).
- 10.13: Parting male quartet—Christchurch Male Quartet, "Love's Old Sweet Song" (Molloy).
- Dance music until 11 p.m.
- 11.0: God Save the King.

4YA, DUNEDIN (463 METRES), SATURDAY, AUGUST 18.

- 7.15: News session.
- 7.30: Address on "The Story of England" (third series), by Mr. Lloyd Ross (under the auspices of the Workers' Educational Association).
- 8.0: Town Hall chimes.
- 8.1: Orchestral selection.
- 8.10: The 4YA Harmonists will present the song cycle, "Dorothy's Wedding Day" (H. Lane Wilson).
- Vocal quartet—"Carillon."
- Soprano solo—Miss Roma Buss, "Now the Lark Is Up Above."
- Tenor solo—Mr. C. C. Scott, "Oh, How I Love Thee!"
- Vocal quartet—"Gigue."
- Mezzo-soprano solo—Miss Mollie Andrews, "Dear Child for Whom I've Prayed."
- Baritone solo—Mr. F. M. Tuohy, "Did You Ne'er Hear the Tale."
- Vocal quartet—"Pavane."
- Vocal quartet—"Finale."
- 8.30: Instrumental trio (violin, flute, and piano)—"Ave Maria" (Gounod).
- 8.33: Soprano solo—Miss Roma Buss, "Daffodils from My Garden" (Barnes).
- 8.37: Violin solo—Mr. A. R. Watson, "Loure" (Bach).
- 8.41: Recitals—Miss Roberta Williams, (a) "Comfort" (Service); (b) "A Culprit" (Vandegriff).
- 8.48: Piano solos—Mrs. Ernest Drake, (a) "Prophet Bird" (Schumann); (b) "Nocturne in F Major" (Chopin).
- 8.54: Baritone solos—Mr. F. M. Tuohy, (a) "Lady Mine" (Lohr); (b) "Thou'rt Passing Hence" (Sullivan).
- 9.0: Weather forecast.
- 9.3: Orchestral selections.
- 9.13: Recital—Miss Roberta Williams, "The Bald-headed Man" (Anon.).
- Flute solos—Mr. J. W. Stewart, (a) "Idyll" (Ackimenko); (b) "Alla Stella Confidenta" (Stenosse).
- Mezzo-soprano solo—Miss Molly Andrews, "With Courtly Grace" (Phillips).
- Violin solo—Mr. A. R. Watson, "Rondino" (Kreisler-Beethoven).
- Tenor solos—Mr. C. C. Scott, (a) "See, Love, I Bring Thee Roses" (Lambert); (b) "When I think of the Happy Days" (Forster).
- Orchestral selections.
- 10.0: Close down.

Sunday, August 19

1YA, AUCKLAND (333 METRES), SUNDAY, AUGUST 19.

- 9 a.m.: Result of All Blacks' match in South Africa.
- 9.15: Close down.
- 3 p.m.: Afternoon session—Selected studio items.

- 4.0: Literary selection by the Announcer.
- 4.8: Selected studio items.
- 4.30: Close down.
- 6.0: Children's song service, conducted by Uncle Leo, assisted by cousins from St. John's Methodist Sunday School.
- 6.55: Relay of service from Pitt Street Methodist Church. Preacher, Rev. Lionel B. Dalby. Choirmaster, Mr. W. Leather.
- 8.30: Relay of concert by the Auckland Municipal Band, military band selections.
- 9.30: God Save the King.

2YA WELLINGTON (420 METRES), SUNDAY, AUGUST 19.

- 9 a.m. Result of "All Blacks" match in South Africa.
- 9.15: Close down.
- 3 p.m.: Afternoon session, selected studio items.
- 6.0: Children's session, Uncle Ernest, assisted by Taranaki Street Methodist Sunday School Choir.
- 7.0: Relay of evening service from Church of Christ, Vivian Street. Preacher, Pastor W. G. Carpenter. Organist, Miss Iris Mason. Choirmaster, Mr. W. J. Mason.
- 8.15 (approx.): Relay of Band Recital of Port Nicholson Band from the Grand Opera House (Conductor, Mr. J. J. Drew).
- God Save the King.

3YA, CHRISTCHURCH (306 METRES), SUNDAY, AUGUST 19.

- 9 a.m.: Result of All Blacks' match in South Africa.
- 5.30 p.m.: Children's song service—Uncle David, assisted by scholars of St. Peter's Presbyterian Sunday School.
- 6.30: Relay of evening service from St. Paul's Presbyterian Church, Cashel Street. Preacher, Rev. W. Bower-Black, LL.B. Organist, Mr. N. R. Williams. Choirmaster, Mr. H. Blakeley.
- 7.45: Devotional music will be relayed from the church after service, till 8 p.m.
- 8.0: Selected items from the studio.
- 8.15 (approx.): Rebroadcast of 2YA, Wellington (relay of band concert by Port Nicholson Band from the Grand Opera House, Wellington).
- God Save the King.

4YA, DUNEDIN (463 METRES), SUNDAY, AUGUST 19.

- 9 a.m.: Announcement of the result of All Blacks' match in South Africa.
- 5.30 p.m.: Children's song service, conducted by Big Brother Bill, assisted by children of the St. Andrew Street Church of Christ, Christian Endeavour Band.
- 6.15: Relay of organ recital from St. Paul's Anglican Cathedral. Organist, Mr. E. Heywood, F.R.C.O.
- 6.30: Relay of service from the Cathedral. Preacher, Rev. Canon Nevill.
- 8.0: Studio concert.
- 9.15: Close down.

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Hawke's Bay Notes

WHAT'S the matter with radio in Hawke's Bay? Every day finds fans hopeful that to-night will find reception conditions better than last night—and they go on hoping.

A COUPLE of decent nights a week is about the average now, and unless things improve many sets will be on the market.

IT'S been about the worst winter on record for radio. It is still a toss-up whether 1YA or 3YA is our best station, the former being favoured most, on account of 2GB being so close to 3YA.

2YA Wellington is a difficult station as far as the Bay is concerned. Mr. Bellingham could not have struck a worse night for his frequency test up this way. Static was in full swing, but that was not nearly as bad as the swinging and fading, and sometimes the frequency notes and Mr. Bellingham's voice faded right out. All the same the talk and the test was quite interesting, and would be worth repeating in the hope of striking a better night.

WAS the howling valve nuisance thought of during the test? As soon as the frequencies got beyond reception up this way, the "whistling Willies" were on the job, and some listeners must have got these tangled up with the test transmissions.

THE 2YA broadcast of the Carroll—Casey boxing contest was greatly appreciated in these quarters, even

though it was a bad night for reception. Mr. Aldridge did the descriptive work quite well, except that he gave too little of it and too much Heeney reprint. But that's a minor detail. The boxing broadcasts from Dunedin are also popular, but 4YA does not come through with the power of old, and even on a five-tube set it is often difficult to pick up well. When is the station going on the higher power promised some time back.

THE Aussies are all coming through well, but appear to fall off in the late evening.

THE Heeney-Tunney boxing contest and the coming Tasman fight has resulted in many local inquiries for radio sets.

THE Hawke's Bay Radio Society's appeal for funds for radio equipment for the Hastings Hospital has come to a temporary standstill at £92. A couple of concerts are to be given soon and should put the total up with a bump.

THE local interference committee has been on the job and located several sources of interference in the way of motors.

2ZM, Gisborne, and 2ZF, Palmerston North, are being picked up here with fair speaker volume.

THE decision of the Racing Conference not to allow future broadcasts of race meetings has raised a howl in these quarters. The matter will be discussed at the Radio Society's meeting next week.

METEOROLOGICAL NEWS

USEFUL DATA TO BE GIVEN

EVERYONE interested in the forecasting of the weather—and who is not?—will learn with pleasure that it is intended shortly to broadcast detailed reports of the observations made at the various meteorological stations. These reports will amplify the weather report as at present sent out, and will enable listeners to draw their own weather charts.

The meteorological branch of the Department of Scientific and Industrial Research will supply the data, and arrangements will be made by which books of chart form may be purchased at cost price by all who are interested. On one side of these chart forms will be space on which to write down reports and forecasts, and on the other will be a map with brief instructions as to how observations can be plotted and a chart drawn.

This information will be of great value not only to mariners but to teachers, farmers and many others. It will provide a splendid means of educating children in the principles of weather forecasting.

One class to whom this meteorological data will specially appeal will be the radio enthusiasts, who will be able to make interesting analyses of the quality of the transmissions compared with the prevailing atmospheric conditions.

The proposal, which comes from Mr. E. Kidson, Director of the Meteorological Department, will come into operation in due course at 2YA, and the information will be broadcast during the

Sporting

Racing, Rugby and Boxing

Saturday, August 11.—Manawhenua v. Canterbury (Rugby), 3YA; Auckland v. Otago (Rugby), 4YA; Club Rugby, 1YA and 2YA; Leckie v. Barber, boxing match, 4YA; Metropolitan Trotting Club Meeting, 3YA.

Tuesday, August 14.—Grand National Steeple, 3YA.

Wednesday, August 15.—Manawhenua v. Otago, 4YA; Metropolitan Trotting Club Meeting, 3YA; Nelson v. Wellington, 2YA.

Thursday, August 16.—Grand National Hurdles, 3YA; Boxing (Casey v. Parker), 3YA.

Friday, August 17.—Metropolitan Trotting Club Meeting, 3YA.

Saturday, August 18.—North v. South Island (Rugby), 3YA; Great Northern Meeting, 3YA; Auckland v. Wellington, Rugby, 2YA; Second League Test, 4YA; Club Rugby, 1YA.

2YA Musical and Dramatic Committee

THE monthly meeting of the Musical and Dramatic Advisory Committee of 2YA was held at the studio on Monday evening, the chairman, Mr. E. Paliser, presiding. General matters arising out of the minutes of the previous meeting, including a number of suggestions and recommendations then made for the consideration of the Broadcasting Company were dealt with.

The chairman reported that he was in communication with the Wanganui Band Contest Committee relative to a proposal he had submitted in connection with the championship contest to be held in that city in February next, and he hoped to have something further to report at the next meeting. He believed that the adoption of the suggestion he had made would prove mutually beneficial to the Contest Committee, and to the Wellington Bands Association.

Relative to the suggestion made at the previous meeting as to the practicability of the company co-operating with the Hutt Valley Choral Society in connection with the society's forthcoming concert, a letter from the company intimating its willingness to co-operate in the manner suggested was read. On the motion of the chairman, a resolution expressing the committee's appreciation of the company's attitude was unanimously carried.

The chairman reported that Mr. F. Campbell, who was unavoidably absent, had requested him to report to the committee, while the Competitions Society could not see its way to authorise a broadcast of a demonstration night programme, there would be no objection to successful competitors in the early stages of the competitions broadcasting from the studio. Mr. Campbell was accorded a hearty vote of thanks for the kindly interest he had taken in the matter.

news session. It is probable that a series of interesting and explanatory lectures will also be given.

TAUMARUNUI RADIO CLUB

THE usual monthly meeting of the above club was held on July 23 in the board room of the Kaitieke Dairy Company, Limited. The president, Mr. A. S. Laird, presided over a fair attendance of members.

The question of interference from leaky transmission line and howling sets was again discussed, and the secretary reported that he had been in communication with the Postmaster (Mr. McIsaac), who assured the club of his co-operation in combating the nuisance.

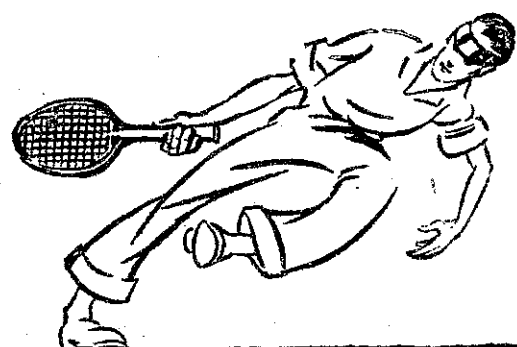
Mr. Hall announced that he had been appointed official listener for the Taumarunui District. This announcement caused much pleasure amongst the members. Mr. Hall appealed to the members to assist him in his task by reporting whenever possible on the transmission, etc.

Mr. Hall gave a lecture on the origin and discovery of wireless which was both interesting and instructive.

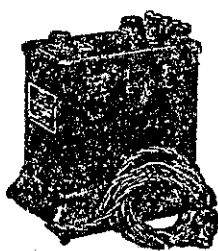
A demonstration on a set loaned by Mr. Redfern was also given.

In his concluding remarks, the president appealed to the members to come along to the meetings and also stressed the necessity of introducing more listeners in order that they may become members of the club.

A vote of thanks to Mr. Hall and Redfern and the chairman concluded the meeting.



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ANSWERS TO CORRESPONDENTS.

"D.X." (Te Aroha) reports receiving a station on about 270 metres giving the call 2FZL on July 16. He gives the strength as R2 on one detector valve and one stage of audio. Can anyone state what station this was?

VARIOUS letters of appreciation of certain artists have been received and the desire expressed for their further engagement. We are passing such requests on to the programme organisers concerned for their guidance. Will the correspondents concerned please note? We wish to give every assistance, but there is a certain danger in unduly mentioning the names of individual singers.—Ed.

Effect of Power Lines.

RE Mr. D. H. Lane's letter in your July 20 issue. My aerial is 140ft. long, suspended between a pine tree and a local power supply pole, and is parallel to a 50,000-volt transmission line 90yds. away. The lead-in end is suspended from the power pole, which supports cables carrying 3-phase A.C. at 400 volts. Further away are three other 50,000-volt lines and four 11,000-volt lines practically encircling the aerial at a distance. The screening effect of these lines is practically nil, but they do produce a noisy background and "static effects" if there is any trouble on the lines. I am inclined to think that Mr. Lane's trouble has little or nothing to do with the power line, particularly as he appears to have his aerial approximately at right angles to it and 50yds. away.

Your correspondent "R.C. Iburua" asks when a real expert operator will

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: nouns de plume for publication are permitted. Address correspondence Editor, "Radio Record," P.O. Box 1032, Wellington.

be engaged for 2YA, and complains of nerve-wracking distortion, etc., etc. I sympathise wholeheartedly with him, but consider it ridiculous to blindly blame the operator at the transmitter end. In this locality 2YA, 3YA, and 4YA are received beautifully pure and clear, with varying strength, of course, according to conditions. 1YA distorts at times, and occasionally 3YA's reception may be spoilt by 2GB heterodyning, otherwise one cannot complain. I believe the operators do their work very well and are to be complimented.—W. H. Potter (Hiorahora).

"Ten" and "Two" of 2YA's Transmission.

I CAN fully, very fully, confirm Napier's complaint regarding 2YA's transmission. Excellent programmes are arranged, but listeners are prevented from enjoying them because of the abnormal amount of fading, persistent mushing, and breaks into distortion that occur. Wellington station is a washout, so far as I am concerned; the set cannot be blamed, because it brings in other New Zealand stations and all main Australian stations beautifully. May I suggest that instead of offering possible explanations

from their armchairs in Wellington, the company's experts get out and listen for themselves.—"Havelock North."

[The special difficulties of Hawke's Bay and some other points regarding reception may be admitted. These difficulties apply at some point to all stations; even the Australian stations, which are satisfactorily received in Hawke's Bay, are the subject of complaint in districts in their own territory. The explanation given was simply a statement of scientific fact. If the trouble were remediable by station action, it would obviously speedily be effected. Experience of satisfactory reception of 2YA in most parts of New Zealand show the transmission is not the determining factor in Hawke's Bay's trouble.—Ed.]

Wireless by Extension.

IT has come to my knowledge that a licensed listener regularly supplies his neighbour with wireless entertainment by running a wire to the neighbour's house, and connecting up with a loud speaker. This appears to me to be "not playing the game." Is the man with the speaker required to take out a license?—Taranaki.

[Yes, a wireless license applies only to the premises occupied by the licen-

see, and any additional arrangement by means of which signals are transmitted to an adjacent residence or office, is not permitted unless the occupant of the premises where the extension is located is also the holder of a license. The neighbour is liable to prosecution unless he holds a license. Ed.]

Suggestion for Jazz Devotees.

I MUST congratulate the Broadcasting Company on the really excellent service they are giving us. I made my first receiver about six years ago, and so I have been fairly well in touch with broadcasting from its inception. The present quality of transmission from the four stations and the general standard of the programmes are in the highest degree satisfactory. I think that the proposal that the 2YA orchestra should be set to playing jazz is deplorable. Such a very fine combination as the orchestra undoubtedly is should not be degraded to such a purpose. I would suggest, quite seriously, to those who like jazz, that they should mount a gramophone motor and turntable, and then, with a "pick up" they will be able to use their audio stages and loudspeaker and produce the records they enjoy. This will leave the 2YA orchestra free for its legitimate purpose—the playing of real music for those of us who prefer that to jazz.—A.M.T.

The Rough With the Smooth.

CONSIDERING its small amount of revenue, the Radio Broadcasting Company has done remarkably well. I read with disgust and pain letters in your paper that complain they do not like this and they do not like that. Some desire more jazz, some say there is too much classical music, some light opera. In fact, I believe I have read at one time or another complaints about every article it is possible for the company to broadcast. If these people who are selfish enough to consider that they should have broadcast whatever they desire, would just pause and think for a moment that whatever they disliked was pleasing somebody else, and that each broadcasting station had over three hundred programmes to supply every year, I am sure they would not growl so much, as they should realise that the Broadcasting Company is doing its best to please everybody, and that we should take the rough with the smooth. Anyway, whatever other people who write say to you, I would like to remark that I am quite satisfied. A simple remedy for those who do not like an item that is being broadcasted is to switch off. After all, for 30s. a year they obtain a far cheaper and better amusement than they would obtain any other way.—W.W. (Masterton).

"Doing Their Best."

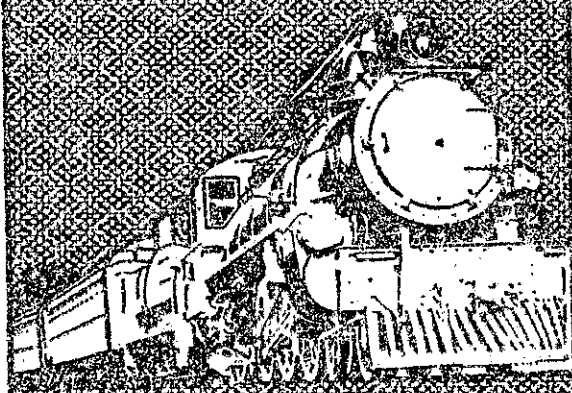
I HAVE been an interested reader of the "Record" since its inauguration and I feel I cannot compliment you too highly on such an interesting and instructive paper. "Megohm's" articles are splendid. With regard to programmes, I think the R.B.C. are to be congratulated on the fine standard of music put on the air. In any case I consider they are doing their utmost to give the best at their disposal. The Wellington Orchestra is an absolute treat. I wish the other two stations had orchestras that were as good.—R. B. Allan (Whangarei).

The Value of Wireless.

I BECAME interested in radio when I was home in London two years

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Parents, do not forget that the last term of the year is the hardest. Take advantage of the Railway facilities to give the young folk a helpful, healthful holiday.

Concession Tickets will be issued from 16th to 25th August inclusively, and they will be available for return journeys until 15th September.

ago: when the great strike (revolution) started, and Mr. Baldwin wisely commandeered the B.B.C. I listened through a cheap crystal set at Tottenham to his messages of assurance to the people; and next day the Labour boards in the street had these words: "Do not believe the lies of the B.B.C. All is going well." I then learnt the value of wireless and listened in at London, Penzance, Chelmsford, and South Kensington Science Department, and heard programmes at different times, and now consider that the programmes I've heard at the 1, 2, and 3 stations (N.Z.) compare more than favourably with those I heard at Home. I might have missed better ones. The Wireless Exhibition of "Olympia," London, was an eye-opener to me, and made me more interested. Mr. Sellens's articles in your radio columns have now made me interested in the short-wave set.—K. Service.

Disappointed.

REGARDING the Tunney-Heeney fight, I was very disappointed with 1YA. Granting that the Company did all that they could to re-broadcast the fight via the short wave, and that it was no fault of the company that this was futile, there is no excuse for 1YA's announcer continually giving the very bald announcement that Tunney won, and Heeney's seconds threw the towel in at the eleventh round. This went on until at least 3.10 p.m. (New Zealand time) whilst, no doubt, long before this the Auckland papers were selling like hot cakes with full cabled particulars of the fight, as the cable company had made special arrangements to rush cables through. It was rather rough on listeners, especially in the country, that they could not get a decent report. The Auckland papers have never been very kind to the company, and hardly deserve this snip.—S. W. Hes (Waiterimu).

Why Keep Silent?

DURING the broadcasting of the Heeney-Tunney fight on Friday afternoon last, I noticed that all owners of short-wave sets were requested by station 3YA (and, I suppose, by the other New Zealand stations as well) not to tun in on short-wave, but to tune in to 3YA. I should like to respectfully ask, what is the use of us having short-wave sets if we are not to be allowed to use them when an important event is taking place?—"Listener."

[The request was made on the principle of the greatest good of the greatest number. Inexpert handling of short-wave receivers leads to howling which would prevent the local stations receiving the news and rebroadcasting it. This was the outcome of events at Auckland: and as a consequence no one there got the news at all well. We do not think short-wave enthusiasts will grudge consideration on important occasions.—Ed.]

2ZM, Gisborne.

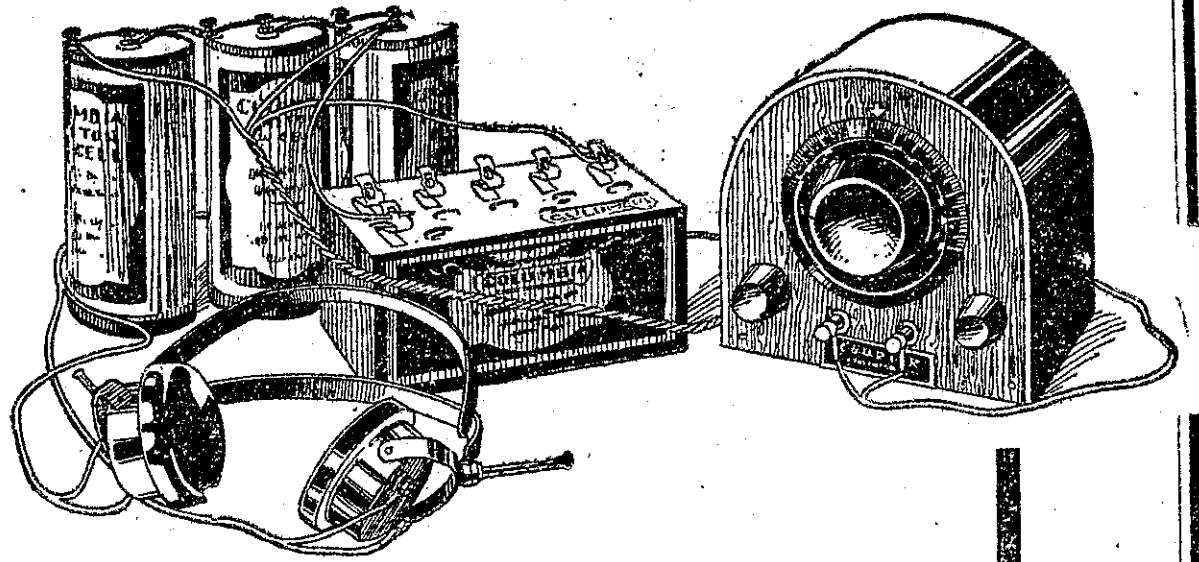
"YOU are there with a ——" So reads the slogan of a well-known make of receiver. In Gisborne we have a broadcasting station like that. Just switch on the current and there he is, anywhere on the dial from 1 to 180. His station has been on the air now for two months, and, as he is apparently unable to confine himself to a reasonable margin on either side of his allotted wave-length, the radio in-

spector should take steps to have him kept off the air during broadcasting hours until he can satisfy the Department his station is no longer an ether hog. His station is unable to cut out 2YA, but 1YA and 3YA are completely blotted out. To allow him to continue as he is to-day is unfair to the hundreds of licensees in this town who pay to hear the splendid programmes put on by the N.Z.R.B. Co. Credit is due to him for being a clever youth in putting the apparatus together himself, but if he is to be allowed to carry on as at present, then those in authority should assist him to finish his job. He is the most roundly cursed individual in Gisborne to-day, and his interference is spoken of by every listener in I have met. I am not prompted by jealousy, nor am I writing this on behalf of any trade competitor or Mr. Stevens, but I object to being deprived of enjoyable programmes by him.—A.K.

2YA Defended.

IN answer to your correspondent "Napier," I wish to state that he is "barking up the wrong tree" when he states that 2YA's transmission is mushy and distorted. I am also a listener and have been building radio sets off and on for three years. I use only first-class British parts and to this I attribute the success of my set. 2YA is easily the best station to listen to both for volume and tone. It comes through almost perfect every night and has done ever since I built my present set, which was just after Christmas. Fading is almost unknown. Once 2YA is tuned in I never go near my set. I could seal the dials and still 2YA would roar in night after night as steady as a rock. I am about six or seven miles air-line from 1YA, yet 2YA comes in with more volume and better tone. 2FC, 2BL and 3YA all come in good, but not in the same street as 2YA. In fact 2YA is so good that it is the only station I have listened to for months. I only listen in to 1YA when 2YA is off the air. Position is not everything, as I was listening to a 5-valve set of a well-known American make only last week in the next street. 2YA was very weak and fading terribly. When I arrived home I tried my set which brought 2YA in with the same volume but with very little fading. This is no idle talk and I invite anyone to come and hear for themselves if they are non-believers. I myself can quite believe that 2YA is using his "U" power as he has twice the volume of 2FC and three times the volume of 3YA. Now all you critics who are condemning 2YA look for the trouble in the right place. 2YA is delivering the goods and cannot be blamed if you are not receiving them. I wish to thank 2YA for the splendid programmes they are putting on the air, which are second to none and well up to the standard of the best of the Australian programmes. I look forward to hearing the 2YA orchestra every night. It is second to none in New Zealand.—C. W. Mills, Beach Haven, Auckland.

I HAVE found that it is better when on a "dead spot" instead of adjusting the aerial coil, as is usual, that if a small condenser, about .0001, is put in the aerial lead, with a small switch, this can be put in or out of the circuit at will, and so alter the wave-length of the aerial, shifting the "dead spot."



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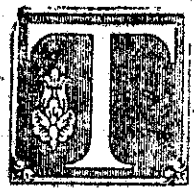
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COURIER JUNIOR

The Frequency Test from 2YA

Comprehensive Discussion on Note Losses and Amplifications

[By "Megohm."]



THE frequency test conducted by Mr. Bellingham from 2YA on July 24 was a matter of considerable importance to radio listeners. It gave the owners of good receivers an opportunity of getting a fairly exact indication of the desirable qualities incorporated within them, and it afforded all and sundry a useful gauge of the small or great shortcomings of their receivers, whether factory ready-made or home-built. Mr. Bellingham set a high standard, which is good, because an ideal to be aimed at should always be high, and from this moment, experimenters and constructors should aim at reproducing as evenly as possible, all frequencies between 10,000 and 22. Generally speaking, this is no easy matter, and in many cases will involve a considerable amount of experiment. But the knowledge gained will be great, and the improved tone and clarity of reproduction will well repay the trouble, and although it may be found impossible to actually reach the range mentioned, any improvement made to increase range in either an upward or downward direction will be rewarded by an improvement in quality, provided that accompanying essential factors have also been attended to.

The Ideal Range.

THE ideal frequency range would be from 10,000 to 16 cycles, but it must be said that this near approach to perfection is not entirely necessary, and for practical purposes a fairly even reproduction from the loudspeaker of 30 to 7000 cycles is very high quality, and is still very good if all frequencies between 80 and 4000 are delivered. This latter is the minimum range in-

dedicated on the recording chart. But, as was pointed out in the lecture, with a maximum frequency of only 4000, the reproduction of certain musical instruments will be found to lack the characteristic quality in a greater or less degree, on account of the fact that some of these sounds contain high harmonics with frequencies varying from an octave above the fundamental to as high as 30,000, the complete sound being composed of the fundamental intermixed with several harmonics or higher notes at varying frequencies. The human ear reaches its limit of audibility at 30,000 or somewhat below that figure, and many of the higher audible frequencies will be so weak, comparatively, that they may well be omitted from musical sounds without their absence being readily detected. It is when the cutting out of harmonics or overtones is carried downwards, approaching too near the fundamental, that the stronger harmonics are lost, quality suffers noticeably, and reproduction ceases to approximate faithfulness.

Even Amplification.

SIDE-by-side with a suitable range of reproduction, the ideal is an even amplification of every note from the highest to the lowest, so that all have the same volume as sounded at the studio. This is perhaps the most difficult condition to fulfil, and only an approximation to it will be expected. All audio amplification systems have in a greater or less degree the fault of reproducing easily the middle frequencies, and falling off badly in their handling of the higher and lower frequencies, as to both amplification and

purity. To extend our range of reproduction in either direction it is necessary not only to secure greater amplification, but to obtain it free from distortion. In some types of audio amplifiers it will be found easy to extend the range in one direction by losing range at the other extreme, but extension in both directions is desired.

Generally speaking, reproduction of higher notes is a simpler matter than of the lower sounds, and the average receiver easily handles the middle and higher, but not the highest frequencies, whilst making a more or less hopeless attempt to deal with the deeper sounds. If the loss of high notes begins too low in the scale, the clarity of speech is affected, and to reproduce the S and Z perfectly a receiver must reach 6400 cycles. At 5000 speech begins to suffer very noticeably, though it may not actually lose much in intelligibility.

Yet although the average receiver will handle high notes of normal volume fairly well, any increase in the volume of, say, a singer's voice, will produce more or less obvious distortion or "blasting." Likely enough, this trouble is caused by the overloading of the detector, for it is in the radio-frequency and detector stages that high notes are inclined to suffer most, and low notes meet trouble chiefly in the audio system.

Megohm's Receiver.

THE writer's receiver acquitted itself in the test just about as was expected. This receiver gives good quality reproduction of music, including all bass notes, and also brings out with good volume the high-pitched instruments, such as flute, piccolo, cornet, and violin. In its present form the set is a three-valve Browning-Drake tuner, followed by a two-stage amplifier, the first stage of dual impedance as described on April 6, with a specially-designed plate impedance, with an inductance of 250 henries, obtained by employing an inch-square core of stalloy. This, coupled to a PM3A as detector, gives high amplification of low notes, without unduly losing the higher ones, as evenness of amplification is a characteristic of impedance coupling. The first audio valve is a PM4, followed by a Ferranti AF3 transformer and a PM 256 super-power valve and choke-condenser output filter. An addition has been contemplated for some time to increase amplification of high notes, but more pressing matters continually assist its postponement. Two speakers are employed, a Brandes Ellipticon to ensure full justice being done to the lowest notes as well as the remainder of the scale, and to add brilliance to the whole, a small horn speaker is connected in parallel. This horn is not capable of properly reproducing the lower notes, and is not required to do so, therefore a fixed condenser of about .01 capacity has been placed within the base in series with one of the leads. By experiment the value of this condenser is decided so that all notes below about middle C are cut out, though

actually some are only weakened so much as to be negligible. The higher the value of the condenser the lower the frequencies passed.

When actually listening to the test arrangements were made so that the valve receiver could be easily switched on and off, to give an opportunity of testing the range of a crystal also, listening on head-phones. This showed that the crystal—a fixed carborundum—has a range from 26 to 7000 cycles, weakening considerably on the higher notes. The valve set took the whole of the frequencies from 26 to 7000, losing them at the 8000 mark. Some of the lowest frequencies could not be produced by valve oscillations, the method adopted for most of the tones, so a bass viol and piano were used, and this caused the production of overtones as well. In the case of the 26-cycle note, the overtone appeared to be stronger than the fundamental. The low E, 40 cycles, on the drums, reproduced well, giving the true quality of the instrument. At 32 the overtone and fundamental were both heard, but on the crystal the overtone was not noticeable. All these low notes came through with good volume, which shows that the low-note amplification consistently aimed at has been accomplished. From 5000 to 7000 the volume weakened considerably, and work will now be put in to increase amplification on the high notes without, if possible, sacrificing anything on the low.

If low notes are to be heard, they must be amplified much more than high ones, and this the average reproduction system is unable to do, so the low notes remain weak and are lost, or are sufficiently heard to have a blurring effect. A broadcast station can determine how low and how high a note shall be put out. The cut-off may be at 40 and 5000 cycles, or at 30 and 6000, or as predetermined. The lowest musical notes are put out by 2YA, but it always appears to the writer that 3YA has a higher cut-off, and does not put out the lowest frequencies, so that receivers unable to reproduce these low notes do not have them present to distort.

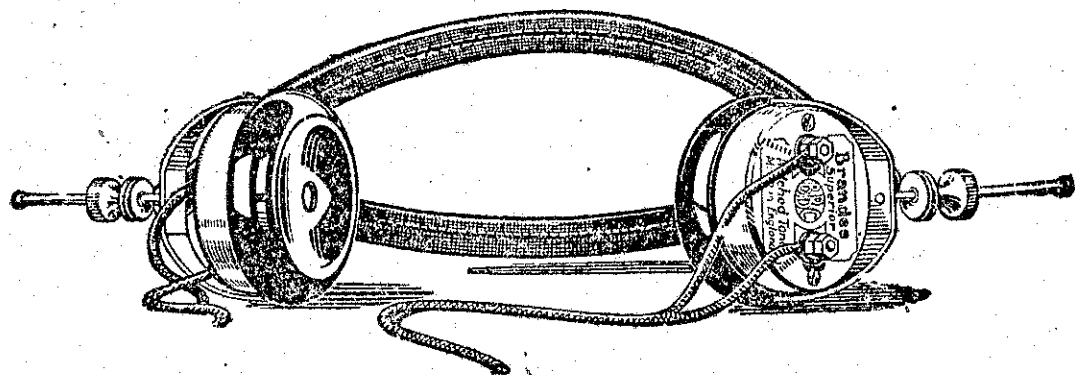
Loss of High Notes.

IN this discussion of radio reproduction, it must be remembered that judgment is passed upon the sounds as reproduced by the loudspeaker, and that faithfulness of reproduction depends not upon one unit or portion of the receivers alone, but upon the whole combination, including the loudspeaker. The loudspeakers used at the 2YA studio, it was mentioned, reproduced every frequency from 26 to 13,000. The speaker in question is the Western Electric balanced-armature cone, a very popular speaker in the United States, though little effort has been made to popularise it in New Zealand.

The majority of radio sets in combination with their loudspeakers are deficient in the frequencies above 3000 cycles, which means that the amplification obtained at these frequencies is not so great as it should be. So much stress has latterly been laid on the reproduction of deep notes that this is

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not surprising, yet without the low tones a great deal of the pleasant musical effect is lost.

As already mentioned, the radio-frequency stages usually pass the high frequencies easily, but should be well designed, or reproduction will suffer through their suppression of the lower tones. One particular type of set, placed under test in an American laboratory, did not pass any frequencies below 350 cycles through out R.F. stages. Signals suffer less by having several R.F. stages of medium selectivity rather than one highly selective stage. This is because the "side-bands" are with high selectivity received with less amplitude or volume than the centre of the carrier wave.

There are several factors that can cause high-note loss in the audio amplifier. Two stages of transformer coupling form the popular amplifier, as giving the greatest amplification per stage, but unless the transformers are well designed they will nullify the good reproduction of which the remainder of the circuit may be capable. And the choice of suitable valves is also essential.

Amplification must be unaccompanied by distortion, otherwise it is useless. Some of the well-designed modern transformers are capable of giving fairly even amplification over a range of 40 to 6000 cycles, but the small-sized badly-designed type will not approach anywhere near this performance, and on account of its low primary impedance, will give very poor amplification on the low notes. If the coupling device between audio valves is such that its impedance varies with frequencies, then amplification suffers at some parts of the musical scale, and the same thing happens in the average coupling system, transformer, or resistance, owing to the fact that the amount of amplification falls off proportionately as the strength of signals increases. This latter may not always be a disadvantage, though it reduces the contrasts of light and shade in the music received. Double-impedance coupling gives more uniform response in this respect.

If a transformer capable of amplifying low notes satisfactorily is to transmit high audio frequencies equally well, other conditions must exist, and the most important, perhaps, is the effective capacity across the secondary windings. Small values of capacity across the secondary will seriously reduce the voltage of the higher frequencies, which is reducing volume. Resistance or condensers should never be placed across the secondary of a transformer, as volume will thereby be reduced. Fidelity of reproduction is also reduced by this practice.

One thing should be made clear, and that is that the troubles now being discussed cannot all be entirely eliminated, but only reduced to a negligible minimum. As amplification of low notes is increased, so there is liable to be a corresponding falling-off in the higher frequencies, which is a very common cause of high-note loss.

Resistance Coupling.

IN resistance-coupled amplifiers, the amplification depends entirely upon the amplification factor of the valves employed, therefore, only those with a high amplification factor, about 30, should be employed before the power valve. The value of the resistance in the plate circuit must never be less than the actual plate resistance of the valve, and a high voltage must be applied to the plate circuit to overcome

this high resistance, and still leave sufficient voltage for efficient operation. Correct valves for the coupling condenser and grid resistor are also important. Increasing the capacity of the coupling condenser reduces tendency to distortion, and increasing the grid leak value increases amplification, whereas too great increase of either produces tendency to "motor-boat." As already pointed out in this column, high notes are lost or weakened through the higher frequencies being by-passed through stray or unwanted couplings in the circuit which offer much higher impedance to the lower frequencies, and thus preserve their volume.

Loss of Deep Notes.

MUCH of the loss of deep notes is caused by want of even amplification, just as in the case of the high notes. To preserve the deep notes in transformer-coupled amplifiers, high primary impedance is necessary in the transformers, especially the last stage. To pass the deepest notes a low ratio, say 3 to 1, is to be preferred to a high as the well-designed low ratio instrument generally has more room to spare for increased primary winding, which gives the higher impedance. Sometimes a high impedance winding following the detector will give a certain amount of trouble in the shape of either whistling or eliminator hum, if a B eliminator is used. The whistling or howling may be present if a B battery is used. Sometimes a resistance of, say, 8000 ohms across the primary will cure this trouble. If a high impedance valve is used as a detector. This measure should not be resorted to if it can be dispensed with, as it slightly reduces volume. The usual by-pass condenser from plate to filament should be provided and different capacities tested, from .0005 upwards. In resistance-coupled circuits, it is imperative to keep the capacity of this by-pass condenser as low as possible.

Loudspeakers.

THE loudspeaker has a very great influence upon quality reproduction, particularly with regard to the range of notes that may be properly produced. At the same time it is quite a common occurrence for the loudspeaker to be blamed for glaring shortcomings in the receiver.

Horn speakers are as a rule not strong on the lower notes, but if fed by a good receiver, it is surprising what good reproduction can be obtained from the larger type of horn speaker, and in such a good percentage of the lower frequencies will be heard, along with the middle frequencies, whilst the reproduction of the high sounds will depend to a great extent upon what is passed by the receiver.

Cone speakers are being gradually improved, and some splendid models are now to be obtained. A good cone speaker gives good volume and clarity on the low frequencies without unduly weakening the high. In large sizes the balanced-armature types give increased volume with facility for reproducing the higher frequencies, and in the same class may be placed the double-acting or "push-pull" type, in which there are two pairs of magnets acting in unison on both sides of the armature.

The moving-coil or dynamic speaker is said to give higher quality than either of the above, but this type of

speaker has so far not been imported into New Zealand in any quantity. It costs a little more to run than ordinary types, but where mains are available to supply current for the field magnets, the running cost would be very small. Some of these speakers have permanent magnets, and thus dispense with current for excitation.

Large-sized Horns

OF exponential and arthaphonic horns a great deal has been heard of late, and undoubtedly these in large sizes approach very near the present limit in reproduction of the whole musical scale. The chief drawback is their bulk, which really presents a serious problem in the average house. Sizes up to 9 and 12 feet in length are built in folded form and furnish a satisfactory solution, reproducing sufficiently low frequencies. A straight six-foot horn may be conveniently suspended near the ceiling with the unit

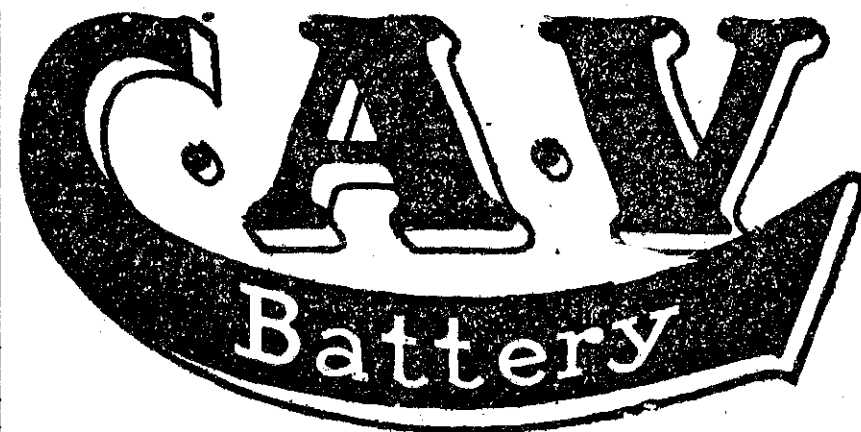
in the corner. This is the most unobtrusive method of using such a horn.

The First Linen Diaphragm

A NAPIER constructor writes: "I have made the linen-diaphragm speaker described in the 'Radio Record' and am very pleased with same. Could you inform me where I can get a good unit for it? The one I am using is rather small for the job."

Lengthening Cone-Driving Spindles.

WHEN it is found necessary to lengthen the driving spindle of a cone until the best plan is to cut the spindle about half-way. Then roll up a strip of brass or copper foil to make a thin tube to fit over the spindle slip one piece of spindle in each end, solder up, and a good extension is the result. Keep moving parts of cone speakers as light as possible.



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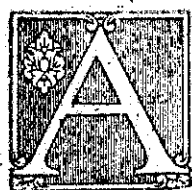
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A Home-Built Loud Speaker Unit for Cone

By "Megohm."



recent number of "Radio News" contains the following description of a home-built speaker unit which will no doubt interest many prospective constructors of cone speakers. This description was awarded a fifty-dollar first prize in a competition.

THIS loudspeaker unit may be built almost without cost by the me-

ible iron $2\frac{1}{2} \times 1.32$ inches, a brass driving rod, nuts and screws.

In the construction of the unit the first step is to break the magnet in two pieces and discard one half. Next, take the half which is to be used in building the speaker unit and determine the north and south poles with a pocket compass. This magnet is $4\frac{1}{2} \times \frac{3}{4} \times 7.16$ inches.

The 10-inch length of soft iron must be cut into three pieces with a hack saw. The first section is $4\frac{1}{2}$ inches in length and this is formed as illustrated at B (Fig. 2); the second section is $1\frac{1}{2}$ inches long and is formed as shown at C; and the third section is used as a mounting bracket for the unit. The last section may be formed after the construction has been completed, and the design which should be followed is shown at G.

Winding the loudspeaker coil is the next problem to consider. Take a bobbin, similar to the one illustrated at E (Fig. 2), and wind it with wire removed from the secondary winding of a Ford spark coil. As much wire as possible should be placed on the bobbin.

After the directions given in the above paragraphs have been followed out, the various parts have been prepared and the unit may be assembled. In Fig. 1 the mechanical details of the completed unit are shown. As the magnet is hard and cannot be drilled, the various parts must be soldered in place. The $2\frac{1}{2}$ -inch piece of flexible iron strip (A) serves as the armature and is fastened to section B as illustrated. Also holes must be drilled in A and B for the adjustment screw (D). Now proceed by soldering the various parts to the magnet and the driving rod (F) to the armature.

After the speaker unit has been completed it may be connected to a cone in the usual manner; and the two wires from the coil connected to the output binding posts of the set. In order to adjust the speaker, the air gap between the armature and the pole-piece of the coil is changed until best results are obtained. This is accomplished by running the two nuts on the adjustment screw up and down.

IT should be understood that the above unit employing only a single electro-magnet, will require heavy volume to operate it successfully. Al-

THIS article is given as an idea for any who may care to construct a driving unit for the linen-diaphragm speaker, but is not particularly recommended for that purpose.

It would be quite possible for an ingenious constructor to combine two small units with pair of coils opposing and armature between, and thus obtain the double action that is employed in some good types of cone speakers.

The balanced armature type of driving unit does not appear to be sold separately from the speaker in New Zealand at present. Inquiries at Harrington's Ltd., Wellington, elicited the fact that about the end of next month they will land a shipment of a unit very suitable for the purpose retailing at 35s.

A Medium-sized Unit.

A NUMBER of inquiries have come to hand regarding the suitability of the "Lessenola" unit, which is stocked by Messrs. L. M. Silver and Co., Manners Street, Wellington. This is a very satisfactory unit for the money where medium volume is to be dealt with by either horn or cone speaker, but is not sufficiently powerful to bring out the full capabilities of the linen-diaphragm speaker. This unit retails at 17s. 6d., complete with full-size patterns and instructions for making what is practically a three-foot semi-exponential horn of either heavy cardboard or three-ply. For 1s. 6d. extra a reed is supplied that will allow of the unit being used to drive a cone diaphragm.

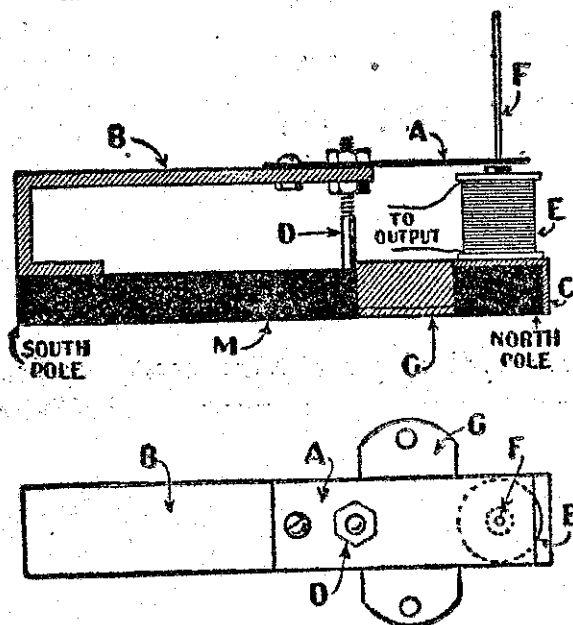


Fig. 1

Two drawings showing complete mechanical details of home-made speaker unit.

mechanically-inclined radio amateur. It will operate a 36-inch cone-type loudspeaker very satisfactorily, and most of the parts required may be found in an experimenter's junk box. All that is needed are a Ford spark coil, a magnet from a Ford magneto, a small bobbin from a buzzer, a piece of soft iron $10 \times \frac{1}{4} \times 1.8$ inches, a piece of thin flex-

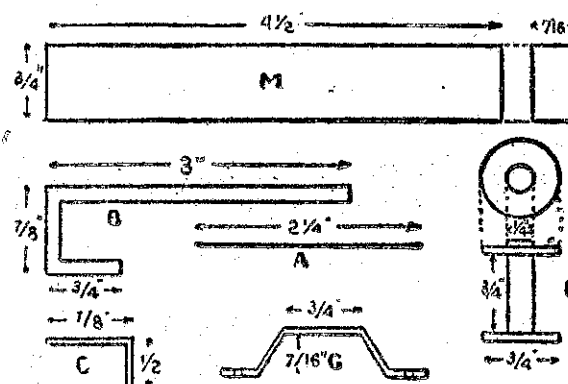


Fig. 2

Exact dimensions of parts used in building speaker unit are given above.

though the directions advise soldering to the magnet, most constructors would find this too difficult, and it would not improve the magnet. A better method would be to clamp on strips of 1.8th brass by bolts through holes in the projecting ends. Part B could be clamped to magnet in this way. Other parts could be soldered to the brass strips.

Tuning Capacities for Frame Aerials

THE following figures may be of use to experimenters who are desirous of constructing loop aerials for their receivers. In order to cover the broadcast band of, say, 200 to 500 metres, the spacing between turns, being about $\frac{1}{4}$ in., the following dimensions and tuning condenser capacities will be found useful. For a loop of about 2ft. square, and taking tuning capacities of 0.00025, 0.00035, and 0.0005, the number of turns will be respectively 20 turns, 14 turns, and 10 turns. For a loop of about 3ft. square and using tuning condensers of the same three capacities, the turns will be respectively 16, 12, and 8. For a loop of about 4ft. square the turns for the condensers mentioned will be respectively 12, 8, and 6.

These figures are given on the assumption that the loop is of the flat or the box type. In the latter the windings are all of the same area, whilst in the former type the area of the windings becomes smaller towards the centre. In using the foregoing figures with the flat type, take the area as being the average area of the loop.

It may be mentioned that the box type for a given area will be more sensitive as a pick-up of signal energy, but the flat or pancake type will be su-

perior in directional properties. Again the flat loop is to be preferred with unshielded frame aerial receivers because of minimised coupling between the loop and the coils in the receiver.

QUERIES BY CORRESPONDENCE.

1. Every communication enclosing queries is to be addressed to "Megohm," Box 1032, Wellington, and must be accompanied by a stamped addressed envelope for reply by post, otherwise no reply.

2. Questions must be written so that a space is left in which the reply may be added.

3. Queries regarding articles that have appeared in this page will have first attention.

4. Owners of bought receivers and apparatus should communicate with the dealer or agent in case of trouble arising.

(End of "Construction.")

IN the advertisement for the Silver Marshall Screened Grid 6 in last week's issue, a misplacement of the address of the Master Agents for New Zealand, Bond and Bond, Ltd., occurred. The address of these principals is Commerce Street, Auckland.

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AHEAD OF ANYTHING IN AMERICA**CANADIAN PRAISES 2YA PROGRAMMES**

By the latest mail a letter came from Mr. P. G. Cox, of British Columbia. Its publication is well warranted:—

"Reporting upon reception from your station, 2YA Wellington, I would say that the peculiarity of this station, unlike other stations in Australasia, seems to be that it reaches here better during our summer than in our winter. Reception from 2YA last winter was, on the whole, poor, but it was poor also from all stations, both local and distant—that is, for winter reception. Whilst 'holding' 2YA nightly, although at times for only a few minutes, ever since it opened, for many months there has been but little 'pleasure' in doing so. For the past week, however, there has been a marked improvement until to-night, for some unknown reason, that station reached here with remarkable strength—in fact, between 1 a.m. (local time) and 1.30, the band concert was thoroughly enjoyed, and during two trombone solos with band accompaniment, and one or two vocal solos, could be heard comfortably three rooms away.

"I am enclosing the programme as I received it, and it will be noted that from the time I tuned in until closing not a single number was lost. It

should be noted that this was all loud-speaker reception, and no effort was made to catch faint announcements, etc., otherwise I could, no doubt, have caught the name of every number. After 9 p.m. (your time) reception conditions improved very much, and it will be noticed nothing was lost from there on.

"I cannot say how much I enjoyed this programme, and how very enthusiastic I am over it. I can only say I have been a listener to our local programmes for over three years, and I make the positive statement that your programmes are far and away ahead of anything we have on this continent. That is, to one who likes music and also likes programmes conducted in a dignified manner.

"It would be unfair and practically impossible to name any favourites in such a splendid programme throughout. In closing, I would like to say a word in appreciation of the announcer. Apart from this programme being announced in English (a change from what I am accustomed to), every word was clearly enunciated and reached here distinctly. It was a splendid programme splendidly announced."

Glossary of Wireless Terms

From week to week we give here a section of the glossary of wireless terms from the "Listener's Guide."

FILTER CIRCUIT.—Filter circuits are used to eliminate unwanted sounds or signals which interfere with reception. Is an essential in A and B eliminators, for instance, to smooth out impulsive currents into continuous characteristics necessary to operate receivers.

FLAT-TUNING.—The opposite of sharp tuning. Lack of selectivity. See "Sharp Tuning."

FLEX.—The usual contraction employed for flexible wire composed of many fine strands, such as is used for the suspension of household electric lights.

FOIL.—Either copper foil or tin foil is customarily used for the plates of fixed condensers.

FRAME AERIAL.—Another name for a loop aerial. See "Aerial, Loop or Frame."

FREQUENCY.—In alternating currents the number of complete cycles or reversals of current through a circuit per second. Thus, we speak of a 60-cycle current as one which has sixty complete reversals per second. See "Alternating Currents" and "Radio Frequencies."

FUSE.—A small piece of wire or strip of definite material and gauge, and so regulated that it will melt if a current beyond a safe value for the circuit in question is passed through it. The melting of the wire breaks the circuit and stops the flow of current.

GRID.—The control electrode of a three-electrode valve, usually consisting of a zig-zag piece of fine wire or mesh or helical coil of wire surrounding the filament. Potential changes of the grid cause magnified current variations in the anode circuit. Due to the fact that current in the form of clouds of electrons (small particles of electricity) flows from the hot filament through the vacuum inside the valve, to the plate, and there electrons

have to pass through the interstices of the grid, if the voltage applied to the grid is negative, the electronic current will be impeded in its flow. On the other hand, a positive potential will assist the flow. An alternating voltage such as available from audio or radio frequencies, will cause alternating negative and positive voltages, which will make the electronic current assume similar characteristics in a current form. By suitable adjusting the valve radio frequency may be converted to audio frequency. This action is known as detection or rectification. The grid functions similarly in this case as a control element.

GRID CIRCUIT.—The circuit which externally connects the filament and grid of a valve, and is completed internally by the electron stream between them.

GRID CONDENSER.—A small condenser placed in the grid circuit to assist the grid in rendering the variations produced in the anode current unidirectional. Sometimes a blocking condenser in the grid circuit of a valve is termed a grid condenser for convenience. See "Condenser Grid."

GRID LEAK.—A high resistance path connected between the grid of a valve and the positive or negative of the low-tension battery. Placed in shunt across the grid condenser it provides a path or leak whereby the electrons which collect on the grid may return to the filament. Without this leak the accumulation of electrons on the grid would interfere with reception.

GROUND.—An American term for earth connection.

HARD VALVE.—A valve of which the containing glass bulb has been exhausted to the highest possible degree. Nearly all English valves, and an extensive range of American, are hard. Some American "detector" valves are "soft," and can be used only for detecting purposes.

RADIO DIRECTORY**What to Buy and Where****AUCKLAND**

- ATWATER-KENT RADIO** .. Frank Wiseman, Ltd.
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- ALTONA & HAMMARLUND-ROBERTS SETS.** Johns, Ltd.
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- AMPLION LOUDSPEAKERS** . All Radio Dealers.
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- CE-CO VALVES** All Radio Dealers.
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- FERRANTI RADIO COMPONENTS** A. D. Riley and Co., Ltd.
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- GILFILLAN AND KELLOGG** . Harrington's, Ltd.,
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COUNTRY TOWNS

- CROSLEY ELECTRICAL AND BATTERY MODELS** The Forrest-Crosley Radio Co., Ltd. Cuba Street, Palmerston North.
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MR. F. W. SELLENS writes:—

AS the carillon bells at the Sydney University were heard here on Anzac Day, the following will be of interest: "Bells Across the Sea."—A little romance of trade, ably provided by radio. On Anzac Day, April 26, a set of carillon bells made by a Loughboro' firm, and supplied to the Sydney University, were first used in a dedicatory service. In a house in London the committee for testing the bells, and representatives of the manufacturers, heard the service perfectly on a short-wave set hastily rigged up at short notice. That the makers were enabled to hear the first performance of their products across the earth is one of the minor but not uninteresting romances of radio."

IT is interesting to note, on a bad night, the difference between the atmospherics on the various short-wave bands. Often when static is too bad for listening to other broadcast stations than the local, the air is fairly or quite clear on the short waves.

IT has been announced from 5SW several times during the past few days that their station will not be transmitting on August 6 or 7.

The following has recently been received from radio station WRNY, New York, owned and operated by the "Radio News":

Station 2XAL, 30.91 metres (9700 kilocycles), the short-wave broadcast station of WRNY, which went on the air on June 29, 1927, is now on full-time schedule, as below (New Zealand time), and broadcasts simultaneously at all hours when WRNY is on the air.

Tuesday: 3.30 a.m.-5.30 a.m.; 6.30 a.m.-11.30 a.m.; 11.30 p.m.-1.30 a.m.

Wednesday: 3.30 a.m.-5.30 a.m.; 11.30 a.m.-1.30 p.m.; 11.30 p.m.-1.30 a.m.

Thursday: 3.30 a.m.-5.30 a.m.; 6.30 a.m.-1.30 p.m.; 11.30 p.m.-1.30 a.m.

Friday: 3.30 a.m.-5.30 a.m.; 11.30 a.m.-1.30 a.m.

Round the World on Short Wave

Notes of special value to short-wave enthusiasts are contributed weekly to the "Radio Record" by Mr. F. W. Sellens, Northland, Wellington. Observations from others are welcomed.

Saturday: 3.30 a.m.-5.30 a.m.; 6.30 a.m.-3.30 p.m.; 11.30 p.m.-1.30 a.m.

Sunday: 3.30 a.m.-5.30 a.m.; 11.30 a.m.-2.30 p.m.; 11.30 p.m.-1.30 a.m.

Monday: 3.30 a.m.-5 a.m.; 6 a.m.-11 a.m.; 11.30 p.m.-1.30 a.m.

(The above times are based on eastern standard time. It will probably be found that, as New York is observing summer time, these times will be one hour in advance, i.e., instead of 11.30 p.m.-1.30 a.m., read 10.30 p.m.-12.30, till eastern standard time is again in operation). Recently 2XAL has changed its equipment, and its power is now almost twice what it was formerly.

The aerial power of the Chelmsford, 5SW, short-wave experimental station is 15 k.w.

THE most interesting reception during the past week was the big fight on Friday last. I tuned in 2XAD, 21.96 metres, at 1.10 p.m., and found them about R21, too weak to understand more than an odd word here and there. KDKA, on 26 metres, was R1—carrier with slight suggestion of talk, while 2XAF could not be heard. I did not tune in either of these stations again, but went back to 2XAD and heard all that was possible from them.

Strength slowly improved; at 1.45 p.m. the description was about 50 per cent. intelligible. The 100 per cent. mark was not reached till Heeney, with a Maori mat in hand, after saying "Kia ora," and mentioned what it meant, asked any listener to tell his mother and father that he was all right. He also said that he did his best. His last words were "Kia ora." After this a newspaper man spoke.

The music relayed from New York afterwards came through quite good. I closed down at 2.30 p.m. The latter

part of the fight and Heeney's talk was heard at about R4 on the speaker, using three stages of audio. Reception, though weaker than usual, was fairly free from background noises. Only one howler was heard, and that very weak, not enough to be troublesome.

Friday, July 27.

PCJJ was tuned in at 6 a.m., when they were about R3. This increased to R6-7 between 7 and 7.30 a.m., after which volume decreased. Some very fine organ solos were heard.

5SW was very weak at 6.30 a.m., just before they closed for a short interval at 7.30, the orchestra was R4-5.

The German, on about 41 metres, was talking as usual at R4.

2XAD as reported above.

Saturday, July 28.

Fritz—R3-4, all talk.

5SW not audible at 6.30 a.m., and only R2 at 7.30 a.m.

KDKA on 26 metres were transmitting some organ music at 1.30 p.m. at R 2-3.

2XAD put on a good programme by the National Orchestra and National Choristers. At 2.25 p.m. "All Through the Night" was very fine, sung by the Choristers. Later a dance programme was relayed from the roof garden, Hotel St. Regis, New York City. The items included "I can't give you anything but love," "Longing for You," "Get Out, Get Under the Moon," "Love's Little Bluebird," etc. They signed off at midnight (3.30 p.m. New Zealand time), strength RS during last half an hour.

PCJJ was tuned in as soon as 2XAD closed down when the National Anthem was being played. This was followed by their weekly special New Zealand and Australian transmission.

They commenced by reporting that the two Olympic transmissions on Tuesday and Wednesday (Wednesday and Thursday here) last were well received in Australia. Reception was not the best. Fading was 1 at times, while a strong, rushing noise was noticeable all through. Strength R5 at first to R2-3 at 6.35 p.m., when the programme concluded with the National Anthem.

Late in the evening 2AW Wellington was heard calling CQ Christchurch.

Sunday, July 29.

At 11.30 a.m., KDKA and 2XAF were about R1-2. This was not improved on till after 1 p.m. by KDKA. 2XAF was later in gaining strength, but was up to R5 toward the finish.

Orchestral dance music was relayed from the — Restaurant, Albany, New York, till 12.4 a.m., daylight-saving time.

Among the amateurs heard were: 2AW, 2BA, 2BH, and 2BO, of Wellington, and 2BE, Hastings.

Monday, July 30.

Was not able to pick up 3LO before 7.30 a.m.

Tuesday, July 31.

At 6.30 a.m. sharp, Fritz started on about 41 metres with "Achtung, Achtung" (attention, attention).

5SW is picking up now in the early morning. From 6.30 a.m. till 7.30 a.m. several musical items were heard. R3.

Wednesday, August 1.

PCJJ at 5.30 a.m. were R3, Rapid fading and unsteadiness spoilt reception. Strength increased to R4-5 and was R3 at 7.30 a.m.

The German was going strong at R4-5.

A station—German, on about this wave-length, 41 metres, has been heard to give the call RSR. This station may be the same, but a call has not been heard from it. A friend, used to hearing German broadcast stations in the Old Country, says that the name of the town is given as a rule instead of a call. This applies to 2LO, London. I have not yet heard the call 2LO, but often "London calling."

A talk was on at 6 a.m. from 5SW, but was too unsteady to be intelligible. R3.

Just before 7.30 a.m. a jazz orchestra was heard. On the half-hour the Greenwich time signal came through (our clock is right once a day, after the signal is received). An interval of 15 minutes followed. A lecture commenced about 7.45 a.m., the speaker and title were missed, but it was apparently about old Roman roads in Britain. Strength R4 at 7.50 a.m. About 75 per cent. readable. 2BO, Wellington and 3AT, Christchurch were heard during the evening.

Thursday, August 2.

Fritz from 6.30 a.m. All talk.

5SW was not so strong again this morning. Just before 7.30 a.m. it was about R 3-4, but unsteady.

Several 2nd and 3rd district amateurs were heard after 10 p.m.

Friday, August 3.

6.30 a.m. Fritz commenced with "Achtung." PCJJ was quite good. Strength from R4 at 5.30 to R5 at 6 a.m., when it was at its best, down to R4 at 7.30 a.m. They signed off just after 7.30 a.m., and said "Good-bye," but instead of closing down, a man sang and some talk followed in a foreign tongue, probably a special transmission.

5SW was quite good. 5.45 a.m. till 6 p.m. pianoforte items were heard at R4. 6 a.m. "London Calling" and the names of several artists were given.

The orchestra then played "Poet and Peasant." This was followed by vocal and other orchestral selections. 7.30 time signal and announced that 5SW will not be transmitting on August 6 or 7. Closed for 15 minute interval.

5SW was just audible after 11 p.m. This is the first time I have heard a sign of them on the evening test for some time.

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