

THE RADIO RECORD

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(Price, 3d.)

Swelling Upwards to 50,000 Licenses



WITH the near approach of two important events in the New Zealand radio world, it is interesting to glance at the exist-

ing situation of licensed listeners, and note the close proximity to the 50,000 mark. The total licenses in operation at the end of August was 47,306, and with four months' registrations to the end of the year it would seem practically certain that the advent of 1930 will see the total number of listeners exceeding 50,000.

The rise in the number of licensed listeners has been so steady throughout the past twelve months that one needs to turn back to the figures obtaining twelve months ago to get a true perspective of the advance made by radio in this period. On looking into the position, it is found that the advance has been really remarkable. The licenses effective at August 31, 1928, totalled 38,835. The licenses effective at the same date this year were 47,306, an increase of approximately 22 per cent. This is a substantial gain, the extent of which will be, we think, somewhat surprising to readers.

Detailed examination of the figures obtaining in the different centres has an interest of its own. The position therein is set out in this table:—

	Aug. 31, 1928	1929	% inc. (approx.)
AUCKLAND	13,199	15,488	17½
WELLINGTON	15,255	19,304	27
CHRISTCHURCH	7,709	8,515	10½
DUNEDIN	2,672	3,999	50
	38,835	47,306	22

Rapid increase indicates growing popularity of Radio

THE percentage increases recorded in the different centres have an interest of their own. Dunedin has made the best percentage increase, and now stands at the 4000 mark. This is certain to be steadily expanded with the service about to be inaugurated by the new station. Wellington's total, standing in the neighbourhood of 20,000, shows the very substantial gain of 27 per cent. Next to Dunedin, Wellington shows the greatest percentage increase, being well ahead of both Auckland and Christchurch. This, perhaps, may be attributed, at any rate in part, to the influence exerted by the Wellington Radio Exhibition held in the Town Hall at the end of July. That event undoubtedly gave a fillip to the cause of radio in the Capital City, and, together with the enthusiasm with which the all-electric set has been welcomed in this area, explains in large degree the increased licenses.

THE Auckland gain of 17½ per cent. is distinctly creditable and, in view of the exhibition to be held in the Town Hall at the end of this month, an extra gain may be expected. It must be confessed, however, that Auckland, with a population greater than that of Wellington, does not occupy as distinctive a position in radio as does the Capital City. The enthusiasm, however, with which the cause of radio is being pushed by the energetic trade influence in the forthcoming exhibition may be expected to make up that leeway, at

any rate in a large degree. Christchurch has recorded an increase in the twelve months under review, of approximately 10 per cent. and stands at 8,500.

WITH the definite gain of 22 per cent. in the period in question, radio has made the most substantial and balanced advance in its history in this Dominion, and obviously is reaching a degree of stability which augurs well for the future. This gain has been won by a steady degree of service. The history of radio shows that a high degree of sustained service is more satisfactory in building licenses than periodic sensational stunts. This expansion, therefore, is its own tribute to the steadily improving service that has been given by the various stations in the past period.

WITH the opening of the Dunedin station the company stands in the position of having completed its contractual obligations with the Government, so far as the provision of operating stations is concerned. It is recognised that the highest degree of efficient service for the whole Dominion requires a further advance in the position. A scheme outlining possibilities in that direction has been prepared by the company and intimation made that it was prepared to proceed along certain lines.

In our next week's issue the future aspect of the radio service will be more fully treated. The figures which we now place on record have a definite interest in their reflex of the public appreciation of radio, and give their own guarantee of the stability reached by the service and the trade. With this additional support, the opportunity is presented for a steady improvement in service and efficiency.

The DX Club

Its Definition

"P. S.—I would like to know what the DX Club is," adds a correspondent to a letter reporting the reception of certain stations. This is not easy to define. The club was suggested by a member of the listening fraternity who was greatly interested in overseas reception. The idea was that a certain page of the "Radio Record" should be devoted to long-distance listeners, who could there exchange views and notes of reception.

It often happens that a station is brought in, and through static or fading the call sign is not obtained. Most listeners wish to "bag" as many of these distant stations as possible, hence, in order to identify them, there is a justification for a medium in which to exchange notes. This medium is supplied through the DX Club page in the "Radio Record."

There are no rules for membership, and certainly no entrance fee. Anyone interested in long-distance reception may send in a report that he thinks may be of interest to others. Those wishing to have stations identified enter their query in the "Identification Wanted" column. Other listeners who can identify these stations reply through the "Stations Identified" column.

An interesting competition is in progress. An endeavour is being made to find who has the largest log in verified stations in New Zealand. In order to verify a station, a few items are listened to, and noted. Likewise, the time, and this converted into Greenwich mean time (New Zealand time minus 11½ hours, or reference may be made to the DX clock published in an early edition of the "Radio Record"). This report is then made as complete as possible, and forwarded to the station in question. If the report is correct, a card is returned. This is a rather long task, and very few listeners take the trouble of so verifying their stations, but it is the only fair means of deciding who has the greatest log. Mr. S. Ellis, of Taranaki, has so far reported the greatest number of stations, 68 verified.

All correspondence for publication in the DX Club page should be addressed "DX Club, Box 1032, Wellington." Make reports and questions as brief as possible. Write in ink, and on one side of the paper only. If a non-deplume is desired, keep the same one on future occasions. All letters should be signed and the name or non-deplume printed in block capitals. Editorially we cannot take any responsibility for the authenticity of news published in this column. To help DX enthusiasts we are publishing in our booklet, "All About the All-Electric," a very full list of all stations that may be heard in New Zealand. In addition, there will be the main stations of the world which might be heard under favourable conditions.

Topical Hints

(By "Switch.")

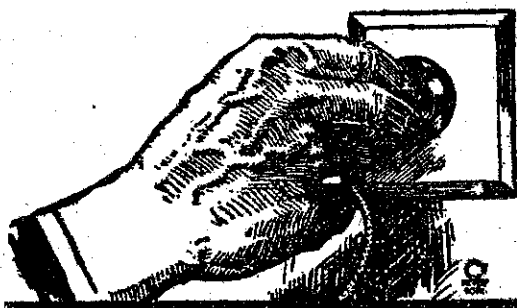
THERE is always a danger of a meeting of listeners committing themselves to a resolution expressing approval or disapproval of a broadcast item. Such a resolution may just scrape through by a bare majority, and is then issued to the public as the opinion of the meeting, while as a matter of fact there is a substantial minority opposed to the resolution. A large minority should prove that the resolution is questionable, and so it should be dropped. Unless such a motion is carried unanimously it should be withdrawn, otherwise it is open to doubt whether it is a fair expression of opinion.

THE greatest praise of the concert relayed by 2YA, Wellington, from Hawera recently is heard everywhere. Listeners are unanimous in their praise of the quality of the talent, the choice of items and the faultlessness of the technical side of the relay. One had only to listen to the political speeches relayed lately by the Australian stations to realise the absence of a background of telegraphic clicks in the recent Hawera relay. Even in Wellington, 1250 miles away, the telegraphic clicks in the Australian relays were loudly audible on a number of occasions.

A SPORTING friend has suggested to "Switch" that possibly the Broadcasting Company will re-broadcast a running description of the ensuing Melbourne Cup, the greatest race run in this quarter of the globe. It is safe to assume that the company will consider the matter, and as the running description will, no doubt, be sent by land-line to 2BL or 2FC, Sydney, the Sydney short-wave station 2ME may transmit also. New Zealand will be represented in the race, and listeners over here will eagerly watch for an announcement regarding such a rebroadcast.

[It has already been announced.—Ed.]

BEFORE many weeks elapse units of the Australian Navy will be visiting Wellington, with Rear-Admiral E. R. G. R. Evans, the hero of the big destroyer, Broke, when she valiantly engaged some German destroyers in the English Channel one dark night during the war. It was practically a hand-to-hand engagement in stygian darkness. Evans sent the Broke full speed at one of the German destroyers and rammed the enemy at 27 knots. The impact was terrific and the German received her death wound. During the engagement the Broke lost 57 men killed and wounded. Rear-Admiral Evans has broadcast from 2FC, Sydney, some thrilling episodes he experienced in the Dover patrol. Possibly we may hear him from 2YA, Wellington.



SOCKET POWER

And its Relation to Radio

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THE latest number of "Television" has come to hand from England. In it is an article that has done more in the cause of radio-vision in England than has any other. It is the last spirited attack of the supporters of the Baird system against the B.B.C. prior to their assent to radio-vision broadcasts. Shortly after the publication of this article we received the cable news that the B.B.C. had given its consent to Baird to broadcast from the corporation's stations. As yet the science is in its infancy and by no means ready for the home. Yet the decision marks a very important move in the right direction.

A SUMMARY of the article follows: The attitude of the B.B.C. towards radio-vision is to a large extent determined probably by their reluctance to commit themselves in any possible way by affording assistance to its development. The point can be illustrated by a simple parable. Suppose that the greater proportion of the people of the world were blind. The result would be that all places of entertainment would provide programmes appealing only to the sense of hearing. Theatres or music halls would have no scenery, and actors and actresses no "make-up" or wardrobes because no one could see them. Plays would be performed on bare stages by actors in ordinary day dress, and a blind audience would derive its full entertainment by listening only.

Let us then suppose some inventor to devise a kind of spectacles or opera glass which would enable this sightless audience to see to some extent, even if in its initial form only perhaps one actor or actress could be observed at a time. The result would be to create a demand for something to "see" as well as "hear," and thus the management of these places of amusement would be obliged to provide for this new innovation, at great additional expense to themselves. Hence their natural tendency would be to discourage the adoption of this device in every way, and to give no opportunity for its exploitations.

All experience shows, however, that when a new line of invention has been opened by the discovery of some principle or fact, its development is only a matter of time and money. No obstruction can stop the progress of an invention if it provides for a real demand by a really new means.

As an example, let us take the development of wireless. In the first experimental stages of its discovery, when Marconi eventually succeeded in effecting wireless telegraphy across the English Channel, even eminent scientific men declared it to be useless for any serious purpose. It is well-known how these predictions have been falsified by history. There is one thing

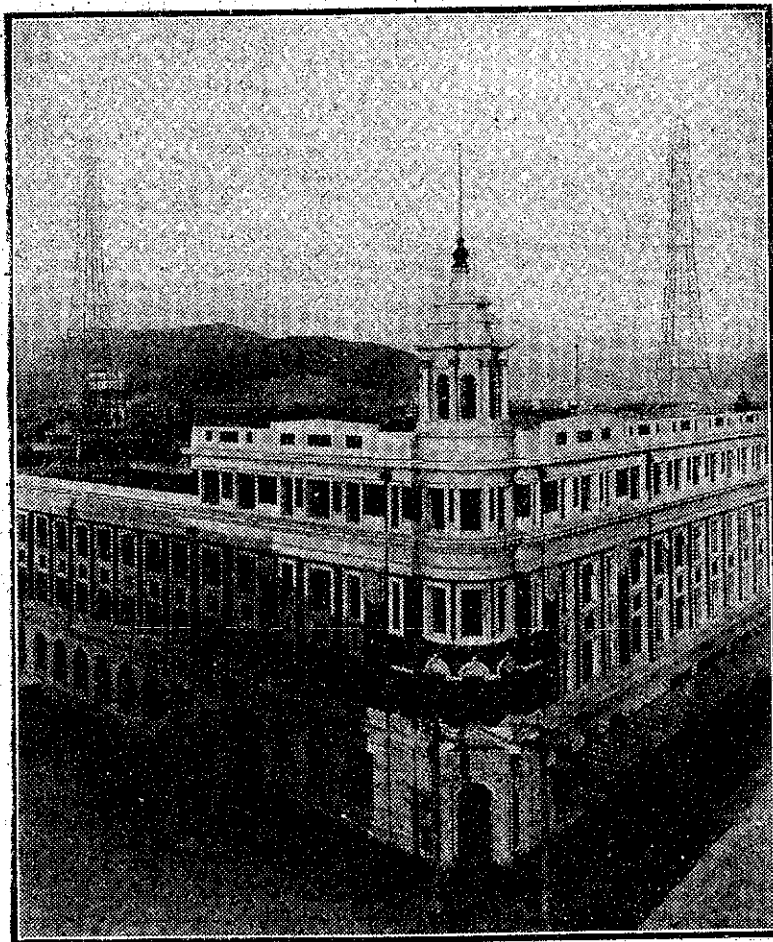
The Opposition to Radio-vision

Spirited Attack Brings Trial from B.B.C.

that hindrance in any form can do, and that is to place the country concerned at the tail instead of at the head of the march of progress, and to force her ultimately to have to buy from other nations that which, in more favourable circumstances, she would have been able to sell to them.

The ultimate universal adoption of radio-vision is inevitable, and the B.B.C.'s attitude of reluctance to do

The British Broadcasting Corporation in the parable mentioned before are in the position of the management of an enormous music-hall for the blind. All who pay their annual license fee can enter this hall and hear all that is going on, but they can see nothing. Then along comes a troublesome inventor, Mr. Baird, and shows the management a kind of opera glass which will enable the blind members



The home of the new 4YA station. This is situated in the "Evening Star" Company's Building, Stuart Street, Dunedin.

anything in the matter will only retard English developments in this direction.

Another important argument in the favour of the immediate fostering of radio-vision is the consequent development of a new industry, thus alleviating the serious conditions of unemployment at present existing in England. Unemployment cannot be permanently cured by doles or artificial and temporary expedients such as road-making, but every new practical technical invention is a basis for fresh employment. The public themselves, and no official body, are the final court of appeal to decide whether a new appliance will prove universally popular, and if no fair opportunity is provided for them to do this, matters are at a deadlock.

of this audience to see the performers, at first perhaps only one at a time. The management, however, would probably reply that they have always done their best to amuse and instruct their audiences by ear, and they do not want to encourage them to ask to "see" as well.

Suppose, they continue, we did do it. Then in all probability they would one day have to equip radiovision studios so that singers and lecturers might be seen as well as heard, and all this would mean outlay and more elaboration. Moreover, the performers might not like it, and it would lead to the same kind of difficulty as encountered in the "talkies." There, formerly, ability to act and good looks were the sole requirements. Now a good voice is re-

quired as well. The management would probably add that they would have to meet a demand for handsome announcers and pretty singers.

Probably something of this nature is floating vaguely through the minds of the B.B.C. management, and inducing them to oppose the introduction of radiovision into their programmes. Radiovision is not yet perfect by a long way, but the problem is sufficiently attractive to attract the attentions of some of the leading research workers in the world, and the ultimate success of their efforts is practically assured. Is an initial and fundamental invention made in Great Britain, to be left for more progressive countries to exploit and obtain the resulting benefit?

The chief objection is that the official mind is very slow in taking in new ideas, and very reluctant to take risks or launch out on new departures. Hence, nationalisation acts as a brake on inventive progress, because no inventor can obtain a proper trial of his invention unless he can break through the adamant wall of official prejudice or lethargy. The only power which will do this is Public Opinion, and it is the public who must demand a fair trial for this new art.

It is not likely that people will purchase radiovision receivers unless there is a fair prospect of being able to receive something. The only result of blocking the way for the development of television in Great Britain will be to foster it elsewhere, and it is impossible to say at present what the ultimate result of such a policy would be.

Someone once said that it requires a surgical operation to make a Scotchman see a joke. This is certainly not true, but it seems as if something of the kind is required to make any public utility corporation, which has settled down to a certain line of work, deviate from it and develop new ground.

Revolutionary Broadcasts

THE French police lately discovered, not far from the Italian frontier, an unauthorised wireless station for which they had been searching for some time. The station was located in an uninhabited cottage near Caunes. The police kept watch late at night and ultimately arrested an Italian and a prominent anti-Fascist, who has already been convicted several times of political offences. It appears that anti-Fascist broadcasts have been made from this station, and the authorities attach much importance to its discovery. The transmitter employed was a powerful one, and its nightly broadcast of revolutionary propaganda was having an increasingly seditious influence on listeners throughout Italy.

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DAY by day, the thermionic valve is demonstrating its marvellous qualities in an ever-increasing field of specialised application. Owing to the fact that the electron stream, the "working principle" of the valve, possesses hardly any inertia, this invention is admittedly the most delicate and sensitive relay known. It is capable of responding freely and instantaneously to the slightest applied impulse, without any lag or any perceptible loss of energy. It is also unique as a generator of high-frequency oscillations, and it is equally steady and reliable when handling the few watts of a small transmitting station as when generating the thousands of watts radiated from a powerful one. Its remarkable qualities are thus conducive to the development of its potentialities extending far outside the field of wireless for which it was originally devised.

Medicine is one instance in point. The virtues of electricity have long been recognised by medical science, both as a curative agent and as a means for pain alleviation. Thus the use of high-frequency currents, induced by a valve oscillator, is at present rapidly growing in favour in the medical world of to-day. The stethophone is a further illustration of the use of the valve in medical science. In this instrument an ordinary stethoscope is used in conjunction with a multi-stage valve amplifier, thus magnifying sounds which would otherwise remain obscure and possibly unidentified. In this way the stethoscope represents a valuable asset in the modern art of diagnosis.

Finally, high-frequency currents produced by valve generators are now being employed for cauterising purposes as well as for actual surgical operations. By using currents of radio-frequency from .25 to 2 amps. in strength, it is possible to cut through bone and tissue in an absolutely antiseptic manner, and without loss of blood.

Another property of a valve which is utilised in many different ways is its extreme sensitivity to any change in

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external circuit conditions, especially when the set is on the "threshold" of oscillation. If, for instance, the reaction coil of a valve receiver is set just short of the oscillation point, the set can be made to "howl" by placing the hand near the coils, or by passing a metal object through the open core of one of the inductance coils. By utilising these peculiarities, a number of ingenious alarms have been devised. A coil forming part of the plate circuit of a "trigger" valve, can be placed near a safe or window, and the approach of a burglar detunes the circuit sufficiently to set the trigger valve into self-oscillation. This in turn causes the plate current to alter suddenly, thereby establishing a contact which rings an alarm bell.

In a German factory the pilfering of valuable metal by workmen has been detected by means of a very similar circuit arranged around a special exit door. The door windings are connected to a superheterodyne receiver, which is sensitive enough to detect the presence of any hidden metal, by giving rise to an alteration of the normal tuning note in the 'phones as the culprit passes through.

A similar principle underlies an arrangement used in prospecting for the presence of metals. A part of the detector circuit is slung in the form of a Hertzian oscillator below the fuselage of an aeroplane, which flies over the area to be explored. The presence of mineral deposits below the ground surface, exercises a "damping" effect on the "search" coils, which creates a change in the characteristic beat-note of a super-sonic receiver, and so gives a reliable indication to the prospecting aviator.

The combination of a selenium cell with a thermionic amplifier has been used to detect the presence of unauthorised persons when opening a safe or strong-room door. The change in the lighting conditions alters the resistance of the selenium cell, which in turn sets a trigger valve into oscillation, and so rings an alarm. A very similar combination has been used to give automatic indication of the approach of fog. A ray of light from a distance is focused upon an optical cell, which is connected to a "trigger" valve circuit in such a way that when the atmosphere becomes opaque, thus cutting off some of the light, a relay is actuated and automatically brings the harbour fog signal into operation.

An identical arrangement is used inside a chimney stack to give a warning when the smoke emitted contains more than the regulation percentage of soot and other impurities. Excessive atmospheric pollution is thus prevented, an automatic alarm being given when the smoke becomes too apoque, and thus too dirty.

Amongst other applications, mention may be made of railway signalling devices in which trap or loop circuits laid on the permanent way co-operate with valve amplifiers mounted in the locomotive, and automatically give audible or visible signals of track conditions ahead. One final ingenious application may be mentioned. A valve can be used to give audible warning of the accumulation of dangerous gases in a coal-mine. The operation in this case depends on the change of "tuning note" of a pipe resonator, the fundamental frequency of which is determined by the density of the contained column of air. The intrusion of noxious gases alters the original density, and so actuates a local alarm.

In conclusion, it would not be an exaggeration to state that the valve is probably the most marvellous invention of all time, and its applications to various widespread uses are by no means all discovered.

THE object of any radio frequency amplifying stage is to magnify the weak long-distance signals before they reach the detector, thus adding greatly to the range and sensitivity of the receiver.

New Developments

WORK is shortly to commence on the B.B.C.'s new headquarters in Portland Place, Oxford Circus, and it is estimated that the total cost of the building will be in the neighbourhood of half a million pounds. This building will contain at least twelve studios, of which two will be twice as big as the largest now in use at Savoy Hill. There will also be a super-studio, intended for the accommodation of large orchestras, choirs, and massed bands. These studios will occupy the centre of the building, and will be grouped one above the other. They will be surrounded by offices, and will thus be protected from any extraneous interference.

SLOWLY but surely the world is being covered with a network of wireless telephone services. One of the latest additions is the restricted service between Great Britain and Buenos Aires via Paris or Berlin. The charge is £2 3s. per minute, with a minimum of three minutes. Another important development towards establishing regular inter-continental communication was demonstrated recently in Australia, when a conversation between officials in Sydney and New York was maintained by means of wireless telephony.

AUSTRALIAN broadcasting is now put on a basis of State control by the Federal Government's acceptance of the tender submitted by the Australian Broadcasting Co., a group comprising Union Theatres, Ltd., Fuller's Theatres, Ltd., and J. Albert and Son, Ltd., music dealers, of Sydney. The tender provides for a three-year contract. Listeners will pay an annual license fee of 24s., half of which will go to the programme contractors, who should thereby be assured under present conditions of an annual income of £240,000.

The contractor is required to furnish "programmes of general interest and of sufficient diversity to cater for the reasonable tastes of the community as a whole." Severe penalties are prescribed for non-compliance with the agreement, including the forfeiture of a bond of £5000, wholly or in part, which the contractor is required to deposit.

The maintenance of stations and their equipment will be the responsibility of the Government, the sole duty of the contractor being to supply programmes.

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for column of casual advertisements see page 32.

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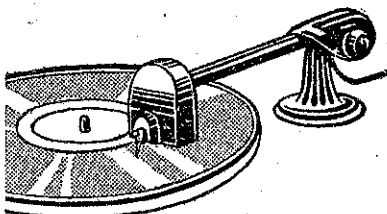
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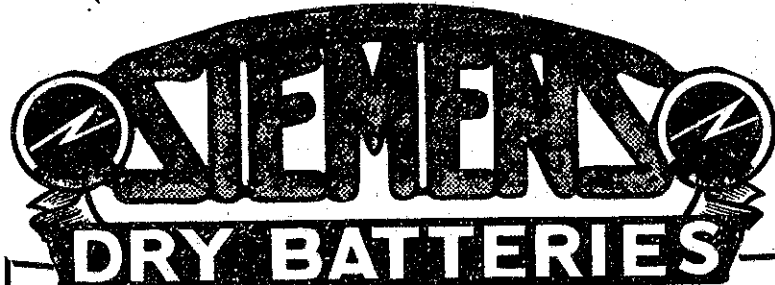
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CONTINENTAL and English police officials recently held a conference at Scotland Yard to discuss plans for the creation of an international flying squad of police aeroplanes. The planes would be fully equipped with wireless installations, and thus in times of emergency the widespread police forces of Europe would be brought into closer touch with each other. Plans have also been discussed recently for the utilisation of the latest developments in television for the improvement of international police investigations.

QUITE a queer explanation for variations in frequency has been given by the Coney Island station, WCGU, New York. The station aerial is situated only 75 feet from the seashore, and it is stated that as the tide rises and falls, so the wave-length varies between 210 and 211.6 metres. The idea is ingenious, and the engineer responsible for it certainly deserves commendation, for it is not everyone who could have caught old Father Neptune interfering with the frequency of transmission!

COMMANDER BYRD, the Antarctic explorer, gathered his expedition together a few weeks ago to exchange messages with their friends in New York, twelve thousand miles away. The leader's message was clearly heard in New York, and the applause of those present at the function was instantly transmitted back to Antarctica. Commander Byrd thus had the unique experience of hearing his own speech cheered by people at practically the farthest limits of the earth!

IS it our imagination, or are people becoming less and less sensitive to sound? It is noticeable, for example, that several gramophone firms are recording at much greater strength than formerly. Again, many people nowadays when listening to a piece of soft music from a gramophone or a radio set, are unable to appreciate it in comfort unless the volume is increased. It appears as though we are gradually losing the finely-sensitive hearing once possessed by our jungle ancestors, for whom every tiny sound had a significance. It may be that the clamour of motor-bikes, electric drills, and all the varied cacophony of everyday life, has so deadened our faculty of hearing that quiet sounds are now beyond the focus of intelligent listening.

IT is surprising to note how radio has advanced in popularity in Germany during the past year or so. It is not very long ago that Germany was regarded as distinctly backward in the matter of radio broadcasting. However according to figures published just recently, the number of licensed listeners in Germany at present is roughly 2,800,000, an increase during the past twelve months of over 600,000. In view of the fact that the Germans are regarded as one of the most scientific nations of the world, this past backwardness is surprising. The cause may be found in the lack of an efficiently-organised broadcasting service.

FOR some time past in the Middlesex Hospital in London, professors have been experimenting to discover the effect of music on human blood pressures. A gramophone and a wide variety of records were used, about eighty people in good health submitting themselves for the tests. Even emotional and powerful music had no detri-

mental effect whatsoever, and in practically every trial, the experiment was beneficial. It is now thought that music may have a marked medical value, and if this is true, radio will have still another achievement to its credit.

DENES VON MIHALY, the Hungarian radiovision expert, was in London recently seeking permission to co-operate with the British Broadcasting Corporation with regard to his new radiovision outfits. It is understood that these are now being used in Germany, the small ones costing £2 10s. and the larger ones £5. He stated that he had negotiated with a well-known English company, whose directors were willing and anxious to manufacture and sell his sets. The sets are fool-proof, and he hopes in due course to be able to demonstrate them to English officials.

RECENTLY a conversation was carried on by means of telephony between officials in London and operators in an aeroplane flying over the State of New Jersey, 3000 miles away. This seemingly impossible feat was made practicable by the linking up of a large number of land and air stations. The conversation was maintained via London and Rugby, then transmitted on low frequency to Houlton, Maine, and from thence it was relayed to New Jersey. The wireless operators there established communication with the aeroplane, and the circuit was thus completed.

MANY Continental broadcasting stations are now installing Fultograph transmitters for the purpose of broadcasting still pictures. Prague, Brussels, Budapest, Madrid, and five others are all now "on the air," and most of the transmissions are easily receivable in England. Judging by the success of this picture transmission, it is now certain that this invention has great potentialities, and in a short time it will probably be adapted to serve many different purposes.

IT has been stated that in America, where broadcasting is in the hands of private enterprise, one particular concern spent a million pounds in one year on programmes. American listeners, in spite of such enormous expenditure of which the above is an example, are not required to pay any license fee whatsoever, whereas listeners in the majority of other countries provide revenue for the maintenance of a broadcasting service. It must be remembered, however, that enormous sums are expended by private companies in America on advertising per medium of radio. This outlay would obviously not be borne by the advertisers themselves, but would be derived by an increase of prices, an unfair system which taxes both listener and non-listener alike. Considering both

methods, the distinct advantage of a ban on advertising is apparent.

ONE of the latest "stunts" in England is the "phantom" orchestra. A band is on the stage playing a popular tune when suddenly one by one the players put down their instruments and leave the stage. The instruments, however, continue to play, and the effect is undoubtedly most uncanny. The explanation of this "stunt" is that the source of the music throughout the performance is a gramophone record to which is attached a pick-up device. The current from the pick-up is amplified in the usual way, and wires are connected from a loud-speaker to the stands on which the musical instruments are placed. These convey the sound vibrations which convert each instrument to a loud-speaker for the particular tones required.

THE chief announcer of a big station in the United States on opening his enormous mail one morning recently, found therein a letter which immediately focused his attention. It was from a lady-listener, and although addressed to him by name, its contents appeared to concern his fellow-announcer, whom it condemned in no uncertain terms. His voice was an affront to listeners, his manner atrocious, his pronunciation incorrect—altogether he was a most undesirable person. With undisguised glee, the senior announcer went to his colleague and threw the letter in front of him, saying, "Read that!" He did, with his face growing longer and longer. Suddenly he said quietly, "Have you read the postscript?" and handed it back. His colleague took the letter and read: "And as for you, you are much worse than the other guy in every way." Despite this incident, there is no doubt whatever that in America certain an-

nouncers have a wonderful and widespread popularity, and this is probably due to their complete lack of formality and their obvious friendliness in their announcing.

IF Dr. Julius Klein, U.S. Assistant Secretary of Commerce, is correct in his estimate, the wireless business has a glorious future. On the basis of five listeners to every set, Dr. Klein sees a potential world market for 200,000,000 radio receivers. A recent survey by the Department of Commerce showed that there are about twenty million sets already in use, two-thirds of this number being in the United States.

Lest the radio trade should grow despondent at the prospect of reaching saturation point, it should be noted that Dr. Klein has not allowed for wear and tear of existing sets.

THE new German liner, the Bremen, while crossing the Atlantic on her maiden voyage, effected simultaneous two-way communication with three American stations during the last two days of her trip. During the whole of the voyage, 50,000 words were used during communication, and wireless traffic was so heavy that the operating staff will have to be eventually increased to ten. Two further operators will be required when provision is made for picture transmission. One hour's telephony was transmitted each day, and this was rebroadcast by the Berlin wireless station to provide a novel entertainment for listeners.

A RUSSIAN radio engineer, named Gordejev, who has been experimenting for some time on short-wave transmissions, has discovered totally "blind spots" in the southern part of Russia, writes a correspondent. In a triangle bounded by Odessa, Batoum and Feodosia (Crimea) short-wave reception was found impossible, although signals on medium and long waves were easily obtainable. At Feodosia itself no difficulty was registered.

In order to investigate these peculiar conditions the Soviet authorities have equipped a small steamer, the "Grusia," with the necessary radio equipment, and tests are made throughout the day and night on both 20 and 40 metres with an energy of roughly 20 watts in the aerial. The "Grusia" recently left Batoum, and in short stages will follow the coast line of the Black Sea.

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The New Zealand Radio Record

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX, 1032, WELLINGTON.

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

WELLINGTON, FRIDAY, OCTOBER 18, 1929.

THE PUBLIC VERDICT.

THE fact that in the twelve months between August 31, 1928, and August 31, 1929, the number of licensed listeners in New Zealand increased by 22 per cent. will, we think, come somewhat as a surprise to most people. This gain has been proceeding steadily month by month, without any particular flare of trumpets. It is in itself the most satisfactory tribute possible to the general average service given by the four stations, and the increasing efficiency of radio equipment and its influence in winning a greater following of the public for radio. It is to the credit of Dunedin that it shows the greatest percentage increase, and now stands at the 4000-mark. With the opening of the new station there this week, a further advance will certainly be inaugurated. Auckland, too, will be certain to show an increase, on account of the admirable exhibition about to be staged in the Town Hall. Wellington, however, still leads the field, and has by now well passed the 20,000-mark with its registered listeners.

THIS gain is very satisfactory indeed, and maintenance of the radio service will certainly lift the 50,000 figure before the end of the year. This is very gratifying, and indicates that radio has now reached a point of definite stability as a community service. Probably the most marked feature of operations in the past few months has been the extension of service to provincial areas. A large number of relays of special concerts, organised in provincial towns, have been undertaken, and have been the means of bringing before the radio audience of the Dominion much talent hitherto unknown. These functions have also driven home to the immediate populations concerned the important influence of radio as a social amenity, and have certainly contributed to the inspiration of more interest in the provincial areas. That field is capable of still further exploitation as a preliminary to the policy of the future, involving the establishing of relay stations, in order to give the necessary standard reception at all times.

CONGRATULATIONS may be extended to Dunedin upon its elevation to equal rank with Auckland and Christchurch in radio power. This advancement will be of marked interest to the whole Dominion, in that the special musical talent of the southern city will now be available more efficiently than before to northern listeners.

We anticipate that the opening ceremony being held on the 16th will be of a memorable character, and will be the occasion for an interesting review of the radio position. That aspect will be dealt with in our next issue.

DAYLIGHT saving time became effective from Sunday last, and will play a small part in relation to radio. It will have the effect of giving those who specially desire the Australian stations a better opportunity of hearing them, as following on the closing-down of the New Zealand stations, it will be possible for them to switch to their favourite trans-Tasman source. In New Zealand itself the longer hours of daylight will have an effect upon distant reception. The lesson of past seasons, however, shows that year by year the seasonal nature of radio becomes less and less. Even though in summer time the same long hours are not devoted to listening as in the winter, radio is required for the occasions when listening is desired. It is expected by the radio trade that the seasonal character of radio will be less marked this summer than ever before. It is highly desirable that this should be so.

Christchurch Radio Exhibition

To Open November 11

CLOSELY following on Auckland, a Radio Exhibition is to be held in Christchurch during the week beginning November 11. The proposal has been taken up very enthusiastically, and its success is assured. The Choral Hall, which has large floor space as well as a capacious gallery, has been engaged, and will be transformed for the occasion. Beneath the gallery, which runs round three sides of the building, stalls for exhibitors will be erected. The whole place will be lavishly decorated and furnished, all being designed to impress on visitors that radio sets are desirable musical instruments for the home.

As in the case of the other cities, the Broadcasting Company will again lend all the assistance it can. At intervals during each evening programmes will be staged and broadcast from a specially prepared studio at the exhibition. This is always a very attractive feature to the public. The children's sessions will also be broadcast from the Exhibition.

From the public's point of view the Exhibition will provide unique entertainments nightly and is certain to be a great draw.

Wellington Symphony Orchestra

Country Listener's Appreciation

THE hon. secretary of the Wellington Symphony Orchestra was recently gratified to receive from a rural listener a letter to the following effect: "Enclosed please find a year's subscription to your society. It was my intention to join up after your last concert was broadcast, but this slipped my mind until the announcement of tomorrow's concert served as a reminder. Wishing you very success, and thanking you for the broadcasts."

In acknowledging this subscription from the rural listener, the hon. secretary of the society wrote: "I desire to convey to you my committee's sincere appreciation of your thoughtfulness in remembering that, even though good music 'over the air' may appear to the uncultured to cost little to produce, comparatively speaking, the expense involved in conducting an up-to-date orchestra is enormous, and it is only by the help of our musically inclined friends that it is possible for Wellington

to take a lead in the highest class of orchestral music. So far this season we have been blessed with good audiences, and it is the committee's hope that the public will support us further as our work becomes better known. I have added your name to my list of subscribers, and I trust that you will be able to enlist the sympathy of your friends who may be interested in our work, with the hope that they also will show their appreciation as you have done. Should you at time be in Wellington when any of our concerts are taking place, please do not fail to communicate with me, and I shall be glad to grant you the usual subscriber's concessions."

Needless to say, similar action on the part of other rural listeners who are disposed to assist the cause of good music by joining the society will be greatly appreciated. The objective of the society is of the highest character, and it needs all the support, financial and otherwise, that can be given by the public and listeners in general.

Have you obtained your copy of the

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When motoring, a jar of Sydal is very useful and convenient. Rub a small quantity into the hands before tackling the dirty job; it keeps the dirt out of the pores. Applied immediately to a scratch or cut, it prevents trouble. A little used before washing the hands will afford great comfort. Keep a jar in your motor.

Luther Burbank

Talks on His Methods

AN interesting series of talks is to be given from 2YA on the evenings of October 19 and 26 and November 2, by Mr. L. D. Haggett. These will deal with Luther Burbank's experiments with flowers, fruits and plants, an evening being devoted to each of these subjects. Luther Burbank, who died only in 1926, left an amazing amount of information as to his methods of developing new colours and odours in flowers, quantity and quality improvements in fruit, and producing new fruits and plants. Some of this information, supplemented by details of personal experiments, will be embodied by Mr. Haggett in his talks. Burbank was a great scientist, naturalist, botanist and philosopher, and in these fields did as much good for the world as any one other person ever did. He was incidental in producing, amongst other things, the stoneless plum, the spineless cactus (now used for cattle feed in desert areas), the Shasta daisy, and a thousand other benefits to horticulture. It is safe to say that these talks will be of outstanding interest not only to horticultural enthusiasts, but to a much wider audience.

Palmerston North

Broadcast

Concert in Aid of Unemployed

ON Sunday evening next, October 20, commencing at approximately 8.30 o'clock, Station 2YA will broadcast on relay from De Luxe Theatre, Palmerston North, a concert organised by Mr. J. A. Nash, M.P., in aid of funds for relief of unemployment. The cause is one which should of itself fill the theatre to capacity; but in addition there will be the attraction of what promises to be a very delightful programme. Patrons of this broadcast concert will have the pleasure of hearing the Choral Society, under Mr. J. Holmes Runcicles; the well-known Bridges Trio, from Wanganui; the Garrison Band, and the junior orchestra, as well as a number of very pleasing solo items, vocal, instrumental and elocutionary. Amongst the individual contributors will be Miss Teale, Mr. E. Gill, Miss Southey Baker, Mr. W. Robertson, and Master Billy Shannon—quite a galaxy of talent. It is confidently expected that the applause of a crowded audience will make manifest to listeners in other parts of the Dominion how well the people of Palmerston North respond to an appeal made on behalf of any necessitous and deserving cause, and how thoroughly they appreciate their own local talent.

Have you procured your copy of

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The Wireless Cable World-Wide Merger

Importance to New Zealand

THE social and economic existence of New Zealand, a country geographically isolated from the rest of the world, is wholly dependent upon all forms of international communication. Realising this fact, we can readily appreciate the important significance of the wireless and cables merger recently consummated in England. With the rapid development of wireless in general, and the beam system in particular, it has long been apparent that the utilisation of this invention for the purpose of international communication would be inevitable. With the application of this scheme, it was soon realised that the wireless and cable services would become competitive, with probably undesirable results to the latter. Hence an amalgamation was proposed and carried through, and now the interests of both are governed by the Imperial and International Communications Company.

Shortly before the end of the general election in New Zealand last year, the Government announced that it approved in principle of the proposed form of the amalgamation. Sir Joseph Ward, however, speaking recently in the House of Representatives on the introduction of the measure formally approving of New Zealand's support in this matter, strongly criticised the transaction. He stated that the abandonment of supreme control by the British Government was an unfortunate and wrong step, from the point of view of both the Pacific cable system and the future of the Empire. He regretted that New Zealand had had no opportunity of protesting against the sale of the Pacific cable.

The London "Times," in commenting on Sir Joseph Ward's criticism, stated that the merger was recommended unanimously after careful and prolonged consideration by the Imperial Cable and Wireless Conference, at which New Zealand was represented by the High Commissioner, Sir James Parr. Owing to the competition of the cheaper beam service, Government-owned cables were likely to become unremunerative, and it was principally for this reason the sale was decided upon.

The suggestion made by Sir Joseph Ward that the merger company would be in supreme control ignores one of the most important recommendations made by the conference—namely, that the Governments of the Empire, as trustees for the public, should exercise control over the policy of the Merger Communications Company, in addition to approving the nomination of certain members of the board of the company. The conference therefore proposed the creation of an Advisory Committee nominated by the Government, which should be given absolute power with regard to any proposed increase of existing rates.

The merger was undoubtedly a more advantageous thing to cable owners, whether private or Governmental, than to the wireless companies, for it enabled the cable interests to capitalise, as it were, their position almost before they

A Stream of Congratulatory Letters

JUDGING from the number of letters received from Australia, the number of people who listen in to the New Zealand stations is steadily increasing. The last mail from across the Tasman brought a very interesting batch. There were also numerous letters from the Pacific Coast of Canada and the United States.

One correspondent in San Francisco reported having heard 2YA on Monday, September 9. He wrote: "The time was around 1.45 a.m. (Pacific Coast Time) when I first picked you up. A wrestling match was in progress and your announcer kept saying, 'Can he make it?' or words to that effect. It must have been broadcast direct from the scene, as the roar of the crowd was very loud at times."

Writing from Portland, which is 113 miles from Sydney, at an elevation of 3028ft., a New South Wales listener said: "I would like to congratulate you on your transmission on Saturday night, September 28; it simply roared in on four valves for three hours from 8 to 11 (your time), with very little fading. I've had you very often before the sun has been down at good strength. This winter has been very disappointing so far as reception is concerned from all stations on your side, and also on our own, static awful, not a week without it—distortion and fading on stations like 3LO and 8AR. On stormy nights I've had you quite clearly. Thank you for news of the air race at Calshot lately; you were very handy that night. None of our stations put that over till next day. I heard you putting the service over the night the King caught the chill that laid him up for so long. I heard a station last week, 2YB, on 'phones, at 5.30, sun shining brightly. Where is he situated?"

A Parramatta correspondent who picked up 2YA when broadcasting the concert from Hawera heard "a short play which sounded very weird, a chorus of voices uttering war cries of a savage nature." He had tuned in while the Hawera Savages were giving a haka!

had begun to feel the effects of wireless competition. On the other hand, the wireless companies stabilised their earnings at the opening of a very promising career. It must be borne in mind, however, that the merger was not recommended for any one reason, but for a number, and amongst them, the course of events abroad.

Very large corporations have been created in America, and it was necessary to rationalise the communication services of the Empire in order to enable them to meet this competition on equal terms. The merger may be regarded as the first effort at Imperial industrial rationalisation, and if the results produce a higher efficiency with better service to the public it should not be the last.

A Sacred Concert

Special Attraction at 2YA

A SACRED concert, which will be relayed by 2YA, is to be held at Palmerston North at 8.30 p.m. on Sunday October 20. The proceeds are in aid of funds for relief of unemployment. The evening's programme is as follows:—

Selection—P.N. Garrison Band; conductor, Mr. Cox.
Song—"The Watchman" (W. H. Squire), Mr. Syd Kendall.
Duet—Bach Double Concerto (violins), Miss Baker and Mr. Findlay.
Overture—"Phineas" (Gruenwald), Bridges Trio, Miss Nacy (violin), Miss Francis (xylophone), Mr. Claude (piano).
Recitation—Selected, Miss Teale.
Item—"How Great is the Depth," (Mendelssohn: St. Paul), Choral Society; Mr. J. Holmes Runcicles, conductor.
Overture—"On the Riviera," (Gruenwald) Junior Orchestra; conductor, Mr. C. H. Greening.
Guitar—"The Rosary" (Nevin) Master Alan Sunborn.
Selection—"Two Imps" (Alford) Bridges Trio.
Recitation—Selected, Master Billy Shannon.
Item—"How Lovely are the Messengers," Choral Society.
Song—"Thanks be to God" (Dixon), Mr. Syd Kendall.
Musical Item—Selected, Mr. W. Robertson.
March—"The Medley" (Alford), Junior Orchestra.
Guitar—"The Laughing Rag" (Moody), Master Alan Sunborn.
March—Selected, Garrison Band.

Do You Know?

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ADVISORY TRUSTEES

This is a heading of an interesting folder just issued by the Public Trust Office. It sets out briefly the advantages of appointing advisory trustees in certain instances.

Free copies may be obtained from any Office or Agent of the Public Trustee, or post free from the Public Trustee, Wellington.

Talks to Farmers

Useful Series at 3YA

THE 3YA Primary Productions Committee, of which Dr. Chas. Chilton, late Rector of Canterbury College, is the organiser, has drawn up the following schedule of talks to the end of 1929. The list is not complete, as other lectures still have to be added, but those which have already been arranged show what an informative service is being rendered to the men who are interested in agricultural and pastoral pursuits.

THURSDAY, OCTOBER 24.—"Shelter Belts on Farms," by Mr. R. G. Robinson, Superintendent, Selwyn Plantation Board.

MONDAY, OCTOBER 28.—"Winter Feeding of Cattle," Agricultural Bulletin No. 4, issued by Canterbury Chamber of Commerce, and prepared in conjunction with Canterbury Agricultural College, Lincoln and Economics Department, Canterbury College.

THURSDAY, OCTOBER 31.—"Manuring of Root Crops," by Mr. R. McGillivray, Fields Superintendent, Department of Agriculture.

THURSDAY, NOVEMBER 7.—"Co-operative Marketing of Wheat," by Mr. Robt. McPherson, Manager of N.Z. Wheat Growers' Co-op. Association.

THURSDAY, NOVEMBER 14.—"Keep in Up the Wool Clip," by Mr. D. Sidey, B.Ag., Canterbury Agricultural College, Lincoln.

THURSDAY, NOVEMBER 21.—"Weather Forecasting in Relation to Farming," Mr. H. F. Baird, Christchurch Magnetic Observatory.

THURSDAY, NOVEMBER 28.—"Certification of Wheat," by Mr. C. C. Leitch, Fields Division, Department of Agriculture.

THURSDAY, DECEMBER 5.—"New Zealand Native Plants," by Mr. H. L. Darton, Secretary, Canterbury Horticultural Society.

THURSDAY, DECEMBER 12.—"Weaning Lambs on Rape," or "Supplementary Feeds for Sheep," by member of staff, Canterbury Agricultural College, Lincoln.

THURSDAY, DECEMBER 19.—"Farm Chat—Review of Journal of Agriculture," by Dr. Chas. Chilton.

WANTED AND FOR SALE.

For column of casual advertisements see page 32.

Hutt Valley Choral Society

Performance of "A Tale of Old Japan"

ON October 21, 2YA will broadcast the performance by the Hutt Valley Choral Society of "A Tale of Old Japan," Alfred Noyes' fine poem with music by Coleridge-Taylor. The story of the poem is that Yoichi Tenko, the painter, taught his art to many pupils by the purple sea. Little Kimi, the

For three long years Kimi waited for Sawara's return, but in vain. Then Yoichi Tenko treacherously promised her hand to a rich merchant, slyly telling her that Sawara had wedded another maid. Weeping and desolate Kimi left him and wandered, frail as a flower's white ghost, by the darkened shore of the sea. Tenko followed and



MISS MADGE CLAGUE,
An English contralto, who is shortly to broadcast from 1YA.
—S. P. Andrew, photo.



MR. N. M. RICHMOND, B.A.,
Director of the W.E.A., and a prominent lecturer at 1YA.
—S. P. Andrew, photo.

beautiful daughter of a brother who had been lost at sea, lived with him there and brightened his lonely life. One day in May when the peonies were blooming, Sawara, young, poor and proud, came to the school of Tenko. Quickly he mastered the painter's art; his inspiration came on golden wings expanding; Tenko marvelled at the work of that young hand. Kimi, too, watched him in awe and wonder and gave him her wistful love.

When the time came for his departure, Kimi was heart-broken and beseeched him to take her away with him; but instead he lightly made her promise to wait for his return. They plighted their promise there, Kimi yearning and dreaming that all his words of love were true.

searched for her in vain. All he heard was the cry of a wandering bird. Many went out to seek her, but none ever found her.

When the peonies were blooming again, Sawara returned to paint the golden scenes near Tenko's school. He was now rich and of great fame and he hardly thought of little Kimi, who had waited for him so long. And now she was gone. She was unfaithful. There were truer and fairer maids than Kimi, said the lying Tenko, and Sawara was easily persuaded to wed another maid.

One day, Sawara thought he would journey to the islands out in the sunset haze to paint his greatest masterpiece. It was thither that Kimi had fled to hide her bitter woe. There, white as a moonlight blossom, she came out to meet him. Long, long awaited, he had come. Nothing so wondrously fair as Kimi had Sawara ever seen, but with a sad heart he told her that he had already wedded another. A last whispering wish she uttered: that he would give her one parting kiss. He gathered her in his arms and held her a moment till like a broken blossom her head fell on his arm. She was dead.

Have you secured your copy of

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Now Available.

Waimate's Jubilee

Concert to be Broadcast

A CONCERT of outstanding merit has been arranged for next Friday evening by the committee responsible for the jubilee celebrations of Waimate. There is excellent talent in the South Canterbury town, including such well-known concert platform artists as Mr. Charles Clarkson and Mr. Howard Foster. Also well known is Mr. A. Spears, who has sung for 4YA. Resident in Waimate also are Mr. J. C. Hill, a violinist of note, and Mr. F. Vincent, late of Greymouth, a champion cornetist.

An interesting item of the evening will be the singing of "The Song of Waimate," the words of which were written by Mr. Geo. Dash, the Mayor of the town.

Another interesting item will be the reciting of "The Jubilee Ode." This is a prize composition by Mr. J. D. S. Roberts. It will be recited by Mr. Douglas Newall.

Miss Alice Meredith, a well-known local entertainer, will contribute two musical monologues and Mr. Forbes T. Wallace will present a musical sketch.

Other vocalists on the programme will be Miss Jessie Merlwyn Buchanan, Mr. John Borthwick, and Mr. R. Wood.

The Waimate Silver Band, the Orchestral Society, and the Salvation Army Band are all splendid combinations.

There will be two brief speeches during the evening, one by the Mayor, who will speak about Waimate, and the other by the Deputy-Mayor, Mr. W. G. Paul, who will extend jubilee greetings to the absent sons and daughters of Waimate. These include the Director of Education, the Assistant Manager of Railways, rectors, doctors, and lawyers. The concert will be broadcast by 4YA, Dunedin. It will be the first long-distance relay carried out by the new station.

World Radio

AN English amateur has recently patented a four-valve receiving set built into a miniature grandfather clock. The upper part of the clock has an eight-hour clock movement with an open fretwork face, behind which is a super-cone type loudspeaker. The central, or column, portion of the clock contains the wireless set itself. By means of a clock switch the instrument can be made to switch on or off automatically at any given time.

THE Carnarvon Choral Society has accepted a rather curious proposal suggested by the B.B.C. In short, it has accepted an invitation to broadcast a concert from the summit of Mount Snowdon during September. Doubtless English listeners will be able to appreciate some high-class singing when this experiment eventuates, but it is rather difficult to imagine the need for all this trouble. If the public were insistent on having a concert from a mountain-top, the announcer could by a few words punctuated by audible shivering fits, convey the necessary atmosphere from the studio. No one would be any the wiser.



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Interesting Boxing An Unusual Turn A Modern Combination The Weather Problem

Big Events in Christchurch 2YA Rises to the Occasion AN American company has recently placed on the market a combination embodying in one cabinet the four principal entertainment inventions of the age, namely, radio, motion pictures, gramophone, and talking pictures. The combination includes the latest model motion picture projector, which is connected to the adjoining gramophone turntable mechanism by a synchronising shaft. The wireless installation consists of a nine-valve all-electric receiver, using screen-grid valves. The inclusion of radio television equipment would certainly render this ultra-modern equipment the last word in fireside entertainment.

THE Christchurch Sports Club has secured two big draws for Monday evening in matching Ted Morgan with Bill Carey, and Campbell with Colin Gardiner.

Ted Morgan is the Olympic champion who, in his first professional fight at Dunedin recently, defeated Steve Hughes. His second success has been the defeat of Phin Stone, of Wellington. Both these fights were won decisively by Morgan with knock-outs, and it appears that this hard-hitting champion will take a deal of stopping.

Carey, of Christchurch, is a strong, rugged boxer who has fought his way to the New Zealand amateur championship. This will be his first professional fight. He does not know defeat and will prove a very redoubtable opponent for Morgan.

Another match which will arouse the greatest interest in Christchurch is the challenge from Campbell (of Oamaru) to Colin Gardiner. Both met in the final for the New Zealand amateur heavy-weight championship, when Gardiner won. Campbell is confident he can reverse the decision.

In addition to these two big events there will be several preliminaries.

A WIRELESS station has just been built at Turuchansk, in the far north of Northern Siberia. This station forms the only link between the small white population and the outside world.

A NOVEL feature of 2YA's evening programme on October 16 was a broadcast interview. The appearance of the Kosmos in Wellington harbour one morning recently excited much comment among the residents because of her unique lines. Accompanying her were seven 250-ton "chasers," which appeared mere cockleshells when moored alongside the factory-ship. This whaling fleet left Wellington on October 12 to proceed to the Ross Sea in time for the whaling season.

Realising the tremendous interest that would be aroused by this visit, the management of the station arranged for Captain Anderson of the "Kosmos" to talk over the air for a few minutes on the activities of the unique fleet. In introducing the speaker at approximately 9 a.m., the announcer recounted incidents in his visit during that afternoon, but it became evident that the speaker, probably fearing his English, could not proceed. The announcer rose to the occasion and proceeded to interview Captain Anderson, who replied very fully and in surprisingly good English to the speaker. The question asked were of very great interest, and during the interview some interesting information was brought to light.

The Kosmos, a large steamer, was built recently to supply a demand for an efficient "floating factory" for whaling purposes. The seven chasers were built at the same time to act as

scouts, and to pursue and dispatch the whales encountered. The whales killed are towed to the stern of the mother-ship, where they are hoisted on board by specially built winches, to be cut up and melted down. The operation of hauling them on board occupies 15 minutes. The Kosmos carries 23,000 tons of oil for fuel, enough to last her until her return to port. Condensers for distilling sea-water are installed, and these are indispensable, as 200 tons of fresh water are used every day. The harpoons carried by the chasers are mounted in the bow, and are fired from a gun mounted on a swivel. They explode on striking the whale, thus killing it outright or wounding it badly. The tremendous power of these sea monsters is exemplified by the statement that a wounded whale will often drag a chaser some distance, regardless of reversed engines.

Blue whales are often 100 feet in length, and weigh roughly one ton per foot.

An efficient wireless installation which provides for the transmission of both telephony and telegraphy, is carried by the Kosmos and her fleet of chasers, and is chiefly used for communication between them. A Gipsy Moth seaplane is also carried on the deck of the Kosmos, and this is used to aid the chasers in their task of "spotting" whales. The bow of the Kosmos is specially built to withstand the tremendous strain of ice-breaking.

They have on board some "huskies," which they will endeavour to deliver to the Byrd Expedition in the Antarctica.

After the conclusion of this interesting talk, Mr. Drummond asked if the speaker would care to speak to any of his countrymen who might be listening. This request was acceded to, and the subsequent greetings in Norwegian sounded quite interesting, if a little unintelligible.

How Broadcasting Helps the Farmer

AS announced in last week's issue of the "Radio Record," a special weather report is being sent out every afternoon for the benefit of the farming community. Till the end of the year this forecast will be broadcast daily from 2YA (except on Sundays and Wednesdays) at 3.30 p.m. (4 p.m. summer time), while on Wednesdays it will be broadcast from each of the other stations at 4 p.m. (4.30 summer time).

Recognising the importance which farmers place on weather reports, the Meteorological Office, of which Dr. Kidson is the Director, is co-operating wholeheartedly with the Broadcasting Company in this service to the man on the land. This was demonstrated during the last harvesting season in Canterbury, when a mid-day report was supplied to and broadcast by 3YA. Similarly, during the present lambing and shearing seasons, an afternoon report has been specially prepared and must be proving of great value to farmers.

Few occupations, if any, are so much at the mercy of the weather as that of the farmer. He cannot control or alter the weather that he gets, neither can he escape from it by moving his fields to more favoured situations. His task, therefore, and that of those whose business it is to assist him, is to arrange his affairs so as to make the best use of the weather that he will get.

With good forecasts, operations at the farm can be planned from day to day to the best advantage. He can decide, for instance, whether hay or corn harvesting shall be begun, or hay or corn carried, whether the farm hands shall be employed in field work or indoor work.

It is because such forecasts can be, and are, of great value to farmers that meteorologists all over the world have striven to establish and to continually improve organisations for preparing and distributing them.

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Identification Wanted

CAN any listener identify an American station working on a frequency between that of 2KY and KNX, from 6 p.m. to 7.30 p.m., approx., New Zealand time. I was trying to locate WJXG and thought I had that station, when I heard the announcement which, I think, contained the letters WJJ.—C. V. Blücher (North Auckland).

DID any listener hear two strangers testing on Monday, October 7, between 3.30 and 4 p.m.? Their wave-length being 452 and 505 metres (665 and 595 k.c.), respectively. Talk was carried on in a foreign language. The only words spoken in English were, "Hullo, Taylor" and "Hullo, Cameron." No musical items were played.—R. J. Harvey (Marton).

I RECEIVE two Morse stations, WEC and KEE, transmitting on 60 metres (5000 k.c.) and 65 metres (4615 k.c.), respectively. They are both received very strongly any night after 7 o'clock, and I would like to know their locations.—C. F. Cross (Kaipara).

COULD anyone give me any information concerning station 3EX, Melbourne, on approx. 247 metres (1215 k.c.)? I understand from his call that 3EX is an experimental station. 3RI, Melbourne, is listed as having 10 watts

THE D.X. CLUB

Views and News.

power. I have received this station quite well on a 4-valve set, and would like to know if this is usual, as the station is a low-power one. Can any short-wave enthusiast tell me what station (a foreigner) operates on 44 metres (6865 k.c.)? I heard him late on Sunday, 6th (about 11.30 p.m.), and could only understand his call (EME).—E. W. Anglesey (Tadmor).

I HAVE heard two stations several times, but cannot get the call signs for static. One operates on 371 metres (810 k.c.), after 2.30 a.m., and the other on 428 metres (700 k.c.), after 11 p.m., when I have heard children singing. The former is a foreigner, and I think it may be India. I would like to know what these two are.—"Puzzled" (Patea).

COULD you tell me when the following stations are operating:

3CT, 3TM, 3EF, 3ML, 3WR, 3EO, 2MK, 2HD, all Australian stations; also the following New Zealand stations: 1YC, Whangarei, 4ZM, Dunedin, 2ZD, Masterton, and 2ZE, Eketahuna.—T.S. (Palmerston North).

[All except 4ZM are amateurs and operate erratically. 4ZM operates 10 to 11.30 p.m. Monday.—Ed.]

I SHOULD be pleased if you could tell me what station was transmitting on the evening of October 6 (about 11.51 p.m.), wave-length 525 metres (570 k.c.)? The music was very plain, but we could only hear "Savoy Hotel" from the announcer. We have a five-valve commercially-built receiver.—Mrs. J. B. Donas (Te Horo).

Stations Identified

IN the issue of October 4 Mr. A. P. Morrison asks for information concerning a shortwave station heard on approximately 50 metres. I have heard this stations after 10 p.m. and all announcements are in a foreign language but so far I have been unable to distinguish any call sign. It comes in just above KZRM, but static is generally bad on this frequency and interferes with listening to some extent. Music comes over well but the language is hard to recognise. Should Mr. Morrison succeed in getting the call sign I shall be pleased to hear from him. A friend of mine heard Vienna on this wavelength a few weeks back so it is possible that it is the same station reported above.

Mr. W. K. McLean also inquires re shortwave station KIO. I heard a station on October 20 on about 26 metres reading out technical data concerning metres. The announcer then said he would give us a little music. After the "Missouri Waltz" had been played another announcer announced rather abruptly "KIO signing off," and the station closed. Strength was R7 and modulation excellent, but the very American accent of the announcer made it rather hard to follow.—R.T. Stanton (Christchurch).

IN answer to "Query" (Te Awamutu), "Amateur" (Southland), "Another Amateur" (Petone), "A. D. Rodgers" (Newtown), and "Q.R.A." and with reference to station 3EX, Melbourne. I have a verification card to hand stating station 3EX is owned and operated by A.W.A., Ltd., and transmits daily from 6 p.m. to 10 p.m. (Sunday excepted), from the All Australian Exhibition, Exhibition Building, Melbourne. The wave-length is 240 metres (1250 k.c.), and the power 500 watts. Reports to Wireless House, Melbourne, will be welcomed from New Zealand listeners.—H. A. Smith (Wellington).

IN reply to "Amateur," I heard 3GX, Melbourne, quite clearly one night at the end of last month.—G. E. Hill (North Auckland).

DX Topics

IN answer to Mr. F. G. MacSherry (Auckland) on the question of the Japanese station which overlaps 4QG, I would like to state that if I am wrong I am only too pleased to be corrected, but it appears to me that this station is JOAK. The "A" is pronounced very clearly, if a trifle drawn out (i.e., as "ah"). Mr. MacSherry gives JOAK's wave-length as 345 metres (870 k.c.), and the "Radio Listeners' Guide" gives it as 375 metres (800 k.c.), which brings it very close to 4QG. JOBK, 385 metres (780 k.c.), is just on the other side of 4QG, and is for some reason much easier to tune out, though both stations seem about the same strength. JOBK's wave-length, according to the Guide, is 396 metres (760 k.c.), while Mr. MacSherry quotes it as 390 metres (770 k.c.). The lower one is heard 4QG.—E. W. Anglesey (Tadmor).

MY log for 2½ years of stations transmitting on the broadcast band totals 118. My set is a four-valve one, employing one stage of R.F., a regenerative detector, and two stages of A.F. The following comprises my log:—75 American stations, including 1 Hawaiian and 1 Canadian, 19 being verified, these ranging in position from the Pacific Coast across to Florida and New Jersey on the Atlantic coast; 7 Japanese, 3 verified; 18 Australian, and 18 New Zealand. Quite a few U.S.A. stations are being heard at fair 'phone strength, the best of them being KNX, WENR, KHJ, WLW, KFVB, KOIN, and KGO. I have also had two New Zealand stations, namely, 2ZD, Masterton, on 5 watts, and 2ZH, Napier, on 35 watts. Both were verified, the latter saying that my report was the furthest one north he had received.—C. V. Blücher (North Auckland).

MY set is a six-valve factory-built one, and though I have had it only two months, I have logged and verified 36 stations in all (13 N.Z., 15 Australian, 4 Japs., and 4 American), and have also heard several others, but they have been too faint to get their station call. My aerial is 107ft., including lead-in, and is 32ft. high; the earth is only soldered to water-pipe. The above may interest "Sonora" (Lyall Bay), who asked in last week's issue if anyone possessing a set similar to his own could receive American broadcasting. The American stations I have been able to verify (by their call letters) are KFOX, KNX, KGO, and KPO, and can get them most evenings from 6.30 p.m. on, often till after 9 p.m.—"Cockey" (Taranaki).

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"SWITCH" has received a communication from "H.M." (Matamata) concerning a patent aerial with which he is disappointed. "Switch" has tried out several types of patent aerials, and has generally found them most unsatisfactory. The most efficient type of indoor aerial (which, however, cannot compare with an outdoor inverted "L"), is an imitation, as far as possible, of the usual inverted (outdoor) "L" aerial. Some listeners can run these indoor aerials inside the loft. Care should be taken to insulate the lead-down through the ceiling to the set. Some of these indoor aerials are rather too short, and to cope with this an inductance coil should be added.

MR. LAWS, honorary secretary of the Wellington Radio Society, is one of a few local listeners who has been obtaining loudspeaker reception of WLW, Crosley Radio Corporation, Cincinnati, 428 metres (7010 k.c.). This station is said to be employing 50,000 watts power. Mr. Laws says that he has received WLW after 11 o'clock at night, and the strength was about the same as 2GB, Sydney. WLW is not there every night, but listeners should search for this station somewhere about midway between 5CL, Adelaide, and 2FC, Sydney. The distance between Wellington and Cincinnati is somewhere about 8000 miles.

MR. W. McINTOSH, mate of one of our coastal vessels, is an enthusiastic short-wave listener when he gets a night at home. The other morning at about 6.30 o'clock he picked up on the headphones a station on about 10 metres, coming through "as clear as a bell," with scarcely a trace of fading and very little static. A man with a cultured English accent was reading long newspaper extracts, and some music was also transmitted. The stranger was on the air for over two hours, and was still there when Mr. McIntosh closed down.

A WELLINGTON radiotrician informs "Switch" that an American valve-manufacturing company is now marketing A.C. valves rated to take 3 volts on the filament instead of the usual 2.5 volts. The new valves will, nevertheless, operate with thorough efficiency with 2.7 volts on the filament. The advantage of these new valves lies in the fact that in some areas the voltage of the electric mains is too high, and is thus causing undue mortality among the highest grade A.C. valves on the market. The new valves would cope with this occasional trouble, but, of course, would be inefficient where the voltage of the mains is correct. It would appear that in America they get too much voltage from the mains in some places; hence these new valves.

MR. BYRON BROWN, president of the Wellington Radio Society, will be absent from Wellington for a month on a visit to Sydney. He leaves here on October 23 by the R.M.S. Tahiti. While in Sydney Mr. Brown will spend part of his time in investigating broadcasting conditions over there, and will doubtless have something to tell the society on his return. Possibly Mr. Brown may be induced to speak from one of the Sydney stations while he is over there.

AT the Wellington Radio Society's recent meeting, Mr. Preston Billing, while delivering a lecture, remarked that a little while ago the re-

ceiving sets in general use were more efficient than the transmitting stations in New Zealand. Now, he continued, the YA stations are performing so well that the reproduction by the average set in use was far below the standard of transmission. Mr. Billing is a strong advocate for the push-pull system of audio amplification in the last stage of all sets (battery or A.C.) for quality of reproduction.

THE recent lecture on Maori music from 2YA, Wellington, by Mr. Johannes Andersen was one of the most interesting and enlightening of its kind yet heard on the air in New Zealand. Mr. Andersen displayed a thorough knowledge of his subject and presented it in an engaging form. His performance on the Jew's harp demonstrating how Maoris were able to speak actual words through the instrument was an astonishing feat. Mr. Andersen's lecture must have made a wide appeal among all classes of listeners.

THEY say "Distance lends enchantment" applies to broadcasting, and those New Zealand listeners who enthuse over the transmissions of 2FC, Sydney, may pause to think when they learn that Sydney listeners have recently written to the Press complaining of the poor transmission. Not so long ago 2FC, as heard in Wellington, had an unpleasant blur, but lately it has recovered. It is a strange fact about broadcasting that the quality of reception of some stations differs at various distances.

THE small Sydney station, 2UE, one evening lately was heard consistently with greater volume than 2BL, Sydney, for nearly an hour. There seems to be some mysterious influence in the air that favours the shorter wavelengths on some occasions. Mr. D. Wyles, the radio expert, who is now resident in Melbourne, told "Switch" when he was in Wellington that there is some peculiar relationship between the wavelengths of broadcast stations and distances from the station. This has an important bearing on the strength of reception, and would account for the various differences of results reported by listeners.

"G.B." (Eltham) writes to say that when he moves the knob of one of his condensers there is a grating noise from the loudspeaker. He mentions various methods he has tried to cure this, but finds his efforts to eliminate the noise fruitless. The only way to make certain of curing this trouble is to connect flexible wire insulated

with spaghetti between the moving vanes and the bearings. This is known as a "pigtail" connection, and will be found on many of the up-to-date variable condensers.

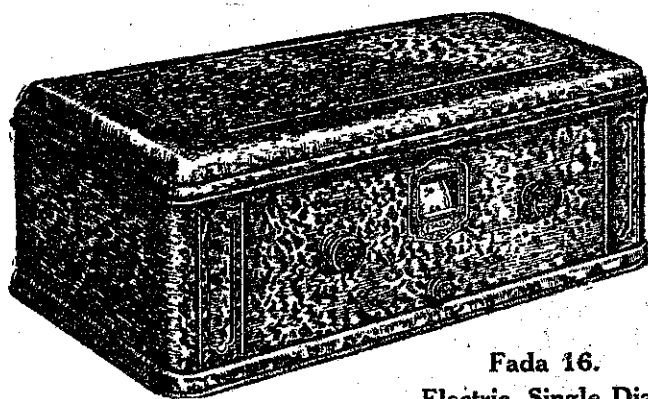
ONE cannot help regretting the number of beginners who take up broadcast listening without becoming acquainted with the commonest requirements to ensure good reception. The writer examined an equipment recently which should have been capable of bringing in the Australian stations with satisfactory volume, but was scarcely able to bring them in at all. An examination of his installation showed that the novice's earth wire was wrap-

ped (not soldered) around a very dirty water-pipe. When the water-pipe had been scraped clean and the wire soldered to it the Australian stations came in with five times the previous volume.

AN Edgar Wallace play broadcast by 2YA, Wellington lately, met with some discussion at the recent meeting of the Wellington Radio Society. Some of the members condemned it, while others commended it. One listener said he would not listen to it, but mentioned that his wife was enraptured with the play. This is just another illustration of the fact that there are widely divergent tastes among listeners, and no half-dozen people should attempt to force their tastes upon others. However, the meeting passed a resolution expressing appreciation of the Broadcasting Company's efforts to increase the variety of its programmes.

WELLINGTON listeners have noticed that 4QG, Brisbane, has now risen in frequency until it is practically on top of the Jap station, JOHK. Every evening now one can hear the Jap in the background of 4QG. The Brisbane station has always been subject to fluctuations in frequency, and this was attributed by a former Wellingtonian to the deterioration of the transmitting valves at 4QG. Of all the stations across the Tasman 2BL, Sydney, has been the most consistent as regards frequency.

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Direct Current Eliminators

Unusual Problems Arise



THE outcry for all-electric receivers has reached those whose lighting power comes from direct current mains. Here a new problem is encountered. The "mains" set of to-day is made to operate from alternating current, whereas, in several districts in New Zealand, this type of power is not available. The current here is direct. Listeners in these localities, no doubt, wish to avail themselves of the new all-electric convenience, but are unable to use the usual set. The question then arises, "What can be done?"

On the surface, DC operation should be more simple than AC, for the AC current has to be rectified or turned into direct before it can be used in the set, thus it is brought back to where the DC mains start. "B" battery elimination with DC mains does not present a problem of any magnitude; with the elimination of the "A" battery, or supplying the filaments, a new problem arises.

Before delving into the particulars of eliminators, let us consider for a few moments the essential differences between alternating and direct current. Direct current implies a steady stream of electrons always in the same direction, and always at the same potential or voltage (except, of course, for incidental fluctuations). The origin of DC may be a dynamo with a commutator to bring the potential differences into one direction. Direct current is the foundation of all electric science, and it was not until Faraday's researches a hundred years ago revealed alternating current that electrical science made any great progress. Faraday discovered that when a conductor made one complete revolution in a magnetic field two half-cycles were induced. This induced charge rose to

a certain potential, dropped to zero, reversed and then came back to normal. In other words, a complete cycle had been performed. This was alternating current. By so arranging the apparatus, the number of cycles per second could be varied. It has been found that 60 cycles per second is a good standard for alternating current for general use.

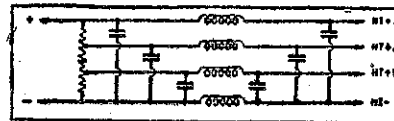
The use of AC current involves the use of transformers which may step the voltage up or down. When direct current is employed, transformers are impossible, for as first demonstrated by Faraday and later by Lenz and his predecessors, magnetic induction can take place only when the inducing current varies in its intensity. Only while a change is taking place in the magnetic field is work being done and current induced. With direct current another means of breaking down the voltage has to be found, and this only through resistances.

One familiarly hears of a resistance being spoken of as so many watts dissipation. This means that the resistance can break down voltage and is capable of passing a definite amount of current measured in amps. The product of these gives the number of watts dissipation. The difference between the final voltage or amperage and the voltage supplies by the line has to be passed off as heat, or is used in overcoming the resistance. In other words, it is wasted.

This is the first problem of DC operation. Take for example, a main supplying 230 volts DC. We wish to obtain 6 volts DC. A transformer is impossible; what then is the procedure? A resistance must be used. This resistance will have to break down the

voltage from 230 to 6, and at the same time it will have to pass sufficient current to supply the valves. Say the total amperage required by the valves is 2, then the number of watts dissipation will be 448. This is obtained by multiplying the voltage drop, 224, by the number of amps passed, 2. The number of watts used by the filament is $6 \times 2 = 12$. Therefore, the waste current is $448 - 12 = 436$ watts per hour. If a unit of electricity, 1000 watts, costs 3d., the waste per hour is about 13d., which is by no means a small consideration. The resistances may quite conveniently be lamps.

When, however, this is impracticable, there is a method whereby the AC



A smoothing circuit for D.C. mains.

mains may be availed of to charge the cells. We shall assume that we have 220-volt mains, and wish to charge a small 6-volt accumulator at the charging rate of 2 amps. It is well known that the resistance of of accumulator in good condition is practically negligible so that it may be disregarded. It is obvious that if the cell is connected directly to the mains there will be an enormous rush of current and this will damage it, as well as blow a fuse. A moment's working with Ohm's law shows that the value of the resistance to break down this voltage from 220 to 6 volts to supply 2 amps, should be 107 ohms. The equation is:—

$$\begin{aligned} I &= E/R \\ \text{therefore } R &= E/I \\ &= 214/2 \\ &= 107 \text{ ohms;} \\ &\text{say, } 100 \end{aligned}$$

It will then be necessary to secure a resistance of 100 ohms with a dissipation of $214 \times 2 = 428$ watts. This is an expensive item. It may be a lamp of this wattage; in any case the waste current will be $428 - (2 \times 6) = 416$ watts.

This is obviously not a paying proposition, unless, of course, it is impossible to get the batteries charged in an AC area.

Another problem with the "A" supply now arises. When a conductor becomes heated, its resistance rises, so that the potential applied to the filament will not be constant. For this reason "A" eliminators, if worked directly from DC mains, are not entirely satisfactory. There is the added difficulty of smoothing, which, although a problem of no great magnitude, might require quite a little expenditure, for smoothing chokes have to be capable of passing 2 amps., and must consequently be wound with 22-gauge wire. Although the inductance of the choke may be in the region of half a henry, such a choke will require

a little skill in construction, and will not be particularly inexpensive. High capacity condensers of the electrolytic or mica type must be employed. Again, these are expensive. More smoothing is usually necessary than when a transformer is used to step down alternating currents.

"B" Battery Elimination.

THE problem of "B" Battery elimination is not so acute. The full potential of 230 volts can be applied to certain power-valves without any breaking down. They will, however, require a little smoothing. Other than this, the resistances used for the audio taps may have the same value as in an AC eliminator. Large iron core chokes are recommended for each positive tapping lead. A potentiometer or lamp resistance of suitable value will give the voltage regulation desired, with a further choke in the negative lead and reservoir condensers between the extremities somewhat as indicated in diagram 1.

As to the inductance values these depend very largely upon the quality of the supply, but they should be rated at 50 henries for the maximum current demand. The condensers must be high-grade and tested to twice the working voltage. They vary in size from four to ten mfd. The frequency of the ripple, for DC current, is not entirely free from ripple, is not only governed by the factors situated at the individual source of the supply, but depends to a very great extent upon the type of power demands made in the locality. Thus a unit may be wholly free from hum at its output terminals when installed at one place, but produces a definite hum in another.

There is one important precaution which must not be lost sight of with all receivers connected across the mains for power supply and that is, the danger of a short. Invariably one side of the mains is earthed, and should this be the negative, little difference will arise, but if it is the positive, then the negative is 240 volts above or below earth potential. If H.T. be earthed direct at the receiver, a dead short will take place. This difficulty is overcome quite easily by including a 1 or 2 mfd.

Labour Day 1929

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fixed condenser in the earth lead, that is, between the earth itself and the earth terminal on the set. The capacity isolation will in no way effect the working of the set providing the condenser incorporated is of good quality, and has a low equivalent high frequency resistance, since it is in the aerial circuit. Even if the negative main is earthed at the power station, a test generally shows the main to be a few volts above or below earth potential, so the inclusion of this condenser in every case will prevent current leakage.

There is a very simple manner of overcoming this problem—by the use of a rotary converter. This piece of apparatus, which may be obtained

Across the Tasman

Impeding Broadcasts

AS the North Shore Bridge at Sydney gradually creeps across the harbour, world-wide public interest in this marvel of modern engineering becomes more and more keen. To satisfy the thirst for information in regard to the progress made, the A.B.C. is having prepared a series of talks describing some of the most interesting phases of this great work. The first of these will

consented to broadcast. New Zealanders with musical inclinations should not miss hearing these talks, which promise to be very interesting.

ON October 23, Mr. Michael Sawtell will deliver from 2FC an interesting talk on "The Philosophy of a Vagabond." At an early age he ran away to the bush and was for many years droving cattle, cattle-raising, and prospecting in Queensland. For a few years he lived amongst the wild natives, but he finally returned to city life, and is now a very popular lecturer.

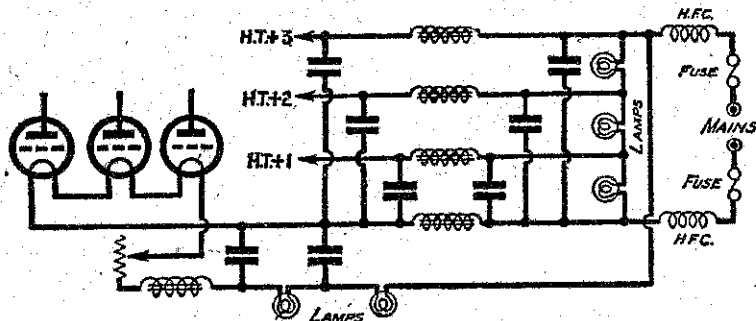
Ship to Shore Transmission

RECENTLY the wireless service between Australia and ships at sea was improved until now telephone subscribers who wish to communicate with vessels within range, are able to lodge their messages by telephone with the transmitting station. Direct communication is not, of course, provided for, but in favourable circumstances it is possible to send a message and receive a reply from a vessel a thousand miles at sea in the space of ten minutes or less. The number of people using the facilities thus provided has been much smaller than anticipated, and the reason is thought to be that radio is being developed in so many different ways nowadays that the public do not fully realise that they can now virtually telephone their friends on board ship.

The Fultograph

Used for Novel Purpose

THE Fultograph picture transmission system is to be put to a novel use at the Slough Radio Research Station for the purpose of recording atmospherics. By arrangement with the B.B.C. special Fultograph transmissions will be made from Daventry after the normal experimental periods, and these will be picked up at recording stations in various parts of Europe. The transmissions will not take the form of pictures; instead there will be sent out a series of straight lines, both horizontal and vertical, forming a grid or network. When the atmospheric occurs deformations of the straight lines will take place to an extent depending upon the intensity of the interference. It is hoped by this means that it may be possible to make records giving the most valuable data for research into the intensity, duration and origin of individual atmospherics. Since the drums of all receiving apparatus, wherever situated, are synchronised, it will be possible by comparing the results obtained in different places to determine the range at which an individual atmospheric can cause interference and the intensity of this interference in different localities.



A complete circuit, showing how both A and B battery requirements can be met from D.C. mains.

from an Auckland firm, converts direct current to alternating. With this transformation, an AC receiver may be used. The cost is about £20.

Summing up the position, it appears that DC eliminators are fully successful only for the "B" and "C" supply. A filter is necessary, and this with a few additions in the way of chokes and condensers, may be identical with that following a transformer in an AC eliminator.

"A" battery elimination is not practicable.

The recommendation is to use a battery set, a DC eliminator, a wet "A" battery, which must be charged in an AC area, or by means of a rotary converter and a charger.

IN addition to the British stations, both Berlin and Vienna are now sending regular picture programmes by the Fultograph method, and picture transmissions from Rome, Milan, Budapest, Brussels, Prague, and Hilversum are being arranged.

take place from the bridge itself on the afternoon of October 20, and will describe the various phases of the completed portion. The second talk will discuss the preparations made for the completion of this immense structure. These broadcasts should prove of some interest to New Zealand listeners, especially those who have visited Sydney and know the immensity of this undertaking.

ON Saturday, July 29, Station 2BL, transmitted on a dual wavelength the description of the Rugby football match between Australia and New Zealand. Reports have been received from Canada, the United States, Wales, England, Java, and the South Sea Islands, all stating that the shortwave reception from 2ME was very clear and distinct. A letter has now arrived from Worcester, South Africa, and the correspondent states that he picked up 2ME using a three-valve set. He states that the description of the match was most interesting and could be followed quite well.

WITH the coming of the cricket season, New Zealand enthusiasts will be interested to know that the A.B.C. has engaged W. A. Oldfield, the famous international cricketer, to give a series of talks on cricket. This brilliant wicket-keeper will appear from 2FC every Friday evening, commencing on October 18. His talk will also include some of the incidents that occurred during the last tour of the Australian Eleven to England and South Africa.

ON October 16, Major-General Antill, C.B., C.M.G., will broadcast from 2FC an address on "Impressions and Recollections of India." General Antill has the distinction of being the first Australian officer ever sent abroad for professional army training. He is a vivid raconteur, and his address should be listened to with the greatest interest.

EVERY Tuesday until the end of the year, a musical lecturette will be given from 2FC by one of the ten well-known Professors of Music who have

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Next Week's Features

1YA Notes

THE service to be conducted in the Auckland Unitarian Church will be broadcast on Sunday evening. The preachers will be the Rev. Wilma L. Constable and the Rev. William A. Constable, M.A. The studio concert programme to follow will include items by Miss Rita McCullay (soprano), and by Mr. A. Gibbons Taylor (bass-baritone), who will make his first appearance in radio. 'Cello solos will be played by Miss Mollie Wright.

A FURTHER talk on "Motoring" will be given by Mr. George Campbell on Tuesday at 7.15 p.m. There will be an operatic programme on Tuesday evening, when a very choice selection of gems from well-known works will be presented in both vocal and instrumental form. The vocalists will be Miss Helen Taylor, Mrs. M. E. Hobday, Mr. Roger Errington, and Mr. E. Snell. Elocutionary numbers will be given by Mr. A. McSkimming. There will be items by the Studio Trio and Miss Ina Bosworth (violiniste). A further "Topical Talk" will be given by Mr. A. B. Chappell at 9 o'clock on Tuesday evening.

CONTINUING his series of talks on "Physical Culture," Mr. Norman Kerr will give a lecture at 7.40 on Wednesday evening. The instrumentalists for Wednesday evening will be Mr. Eric Maxwell (pianist) and Mr. R. Sproul (trumpeter). The Asquiths will provide a thirty minutes' drawing-room entertainment. There will be two duets by Miss A. McGruer and B. Smith, who will also sing solo items. Solos will be sung by Mr. S. Pritchard. There will be elocutionary numbers by Mrs. B. Bell. A half-hour's review of the latest recordings will be given by "A Commentator."

THERE are indications that the entertainment on Thursday evening will be of a breezy nature. The Minus

Fives are to give "A Dreadnoughtical Night." There will be many sea airs and melodies on the programme.

THE vocalists for Friday evening will be the New Zealand Four, presenting concerted and solo numbers of a miscellaneous nature, and Mr. Eric Waters will play a pianoforte solo, "Humoresque" (Gardiner). There will be selections by the Studio Trio. The Auckland Comedy Players will present



MISS MAISIE CARTEL-LOYD,
one of Auckland's foremost
elocutionists.

—S. P. Andrew, photo.

a one-act play and Mr. J. F. Montague will recite "Agincourt" (from Henry V).

THERE will be good variety in Saturday evening's programme. The Four Originals will present the third of their "Oh, Millie!" series—a very interesting half-hour. At 8.45 there will be a relay from the Auckland

Competitions Society's Demonstration Concert in the Town Hall. Dance music will continue till 11 p.m.

2YA Notes

THE service at St. Andrew's Presbyterian Church will be broadcast on Sunday evening; the Rev. R. Howie will be the preacher. Afterwards there



MR. JACK GORDON,
a member of the Auckland Comedy
Players and a leading amateur actor.

—S. P. Andrew, photo.

will be a relay from Palmerston North of a concert organised by Mr. J. A. Nash, M.P., and Mr. F. Jackson, in aid of the fund for the relief of unemployment.

It is 30 years on October 11, since the South African War began. Memories will be revived on Monday evening, October 21, by Mr. T. W. Brown, who has chosen the date of the departure of the first contingent as being appropriate for such a lecture. At 7.40 on Monday evening Mr. H. C. South will give his fortnightly talk on "Books—Grave and Gay."

TUESDAY evening's programme will be of the usual bright and popular nature, including solos from "The Geisha." The selections by 2YA Salon Orchestra, under the conductorship of Mr. M. T. Dixon, will include Keler Bela's Hungarian "Lustspiel," part 2 of Luigini's "Ballet Russe," Liszt's "Liebestraum," and Krein's "Glory of Russia." The assisting artists for the balance of the programme will be Miss Greta Stark (soprano), Mr. Claude Moss (baritone), and Miss Dorothy Seymour, who will entertain with humorous items by Wish Wynne. Messrs. Edward Silver and Bert Burton will be heard in the latest popular songs and jazz piano numbers.

A TALK on "Gardening" by Mr. A. J. Nicholls on Thursday evening

at 7.40. Thursday's programme will be given by the Wellington City Salvation Army Band and assisting vocal artists. Band items will consist of selections, instrumental solos and several marches. The assisting artists will be the Lyric Quartet and Mrs. Gwen Clayton. Light songs at the piano will be given by Mr. W. Gatheridge, a recent arrival from England. A feature of Thursday evening's programme will be another talk on "Maori Music" by Mr. Johannes Andersen.

A FURTHER talk on "Cricket" by Mr. A. Varney on Friday evening at 7.40. The evening's programme will feature items from grand opera and musical comedy, the artists being Mrs. Fraser-Morrish (soprano), Mr. and Mrs. Ray Kemp (baritone and contralto to respectively), Mr. E. W. Robbins (tenor), and Mr. Albert Davey (elocutionist). The vocal items include excerpts from "Lohengrin," "Pagliacci," "Acis and Galatea," "Carmen," "The Quaker Girl," "Tom Jones," and "The Arcadians." A feature of the programme will be Mr. Davey's presentation of a character study of Sydney Carton from Dickens's famous book, "A Tale of Two Cities." This particular item is one of Mr. Davey's favourite pieces and for that reason should be particularly enjoyable. On Friday evening Signor Truda's Orchestra will play the overture from Flotow's "Martha," also selections from "Caval-



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leria Rusticana" and "Tannhauser." The musical comedies to be played will be from "No, No, Nanette" and "Nanoma."

SATURDAY night's programme will be the usual vaudeville type, vocal items being contributed by the Melody Four, and Mrs. Lightbody, who will contribute several soubrette numbers. Mr. Jack Wilkinson will contribute to the lighter side of the programme with comic songs, and Berthold and Brent will play steel guitar items. There will be selections by the 2YA Salon Orchestra, under the conductorship of Mr. M. T. Dixon. A dance programme will continue until 11 p.m.

3YA Notes

THE service in the Christchurch Anglican Cathedral will be broadcast on Sunday evening. The preacher will be the Rev. E. C. Crosse. A rebroadcast of 2YA will follow.

MONDAY evening at 3YA will be devoted to a relay from the ring-side at the Civic Theatre.

ALMOST entirely operative will be Wednesday evening's programme. This will be an entertainment of outstanding attractions to lovers of music of this class. Co-operating with the vocalists will be the Studio Instrumental Octet under the conductorship of Mr. Harold Beck, and Miss Bessie Pollard, pianiste. Solos from "Mignon" and "Lucrezia Borgia" will be sung by Miss Anita Graham. Miss Marian Woodhouse will sing solos from "Nozze di Figaro" and "Ballo in Maschera." Donizetti, Verdi, Puccini and Leoncavallo will be represented in songs which Mr. Percy Nicholls will sing. Mr. Clive Hindle will sing "Oh, Lady Bright," "Song of Bacchus," and "How Badly is the Course of Life Adjusted." The orchestral music has been specially chosen for the occasion.

ON Thursday evening the Studio Octet under Mr. Harold Beck will again appear. On this occasion the programme will be of a semi-classical nature. Miss Eileen Grennell will sing a selection from "La Tosca," "Thou Art Like a Lovely Flower," and "Through the Night My Songs Adjure Thee." Miss Nellie Lowe's solos will be "Ships that Pass in the Night," "Break, Break, Break," "The Songs My Mother Sang," and "O, Lovely Night." The other vocalists will be Mr. L. C. Quane (tenor) and Mr. W. H. Inkster (baritone). Some specially

selected recordings will also be introduced.

A TALK on "City Beautification" will be given on Friday evening at 7.30 by Mr. F. L. Hutchinson, a member of the Executive of the Christchurch Beautifying Association. Dance music will be prominent on Friday evening's programme, the instrumentalists being the Bailey-Marston Dance Orchestra. The vocalists of the concert will be Mrs. Lucy O'Brien, Miss Mary Taylor, Mr. T. G. Rogers, and Mr. E. J. Johnson, singing quartets, duets and solos. The programme will be a very bright one.

ON Saturday evening there will be a programme of the vaudeville type. It will introduce a violin and accordion duo—Messrs. N. Collins and George Bennett—playing popular numbers. Vocalists will be Mrs. Maud Wood (mezzo-soprano), Miss Vera Martin (contralto), and Mr. Arthur T. Couch (tenor). There will be humorous recitations by Mr. J. P. Darragh and humorous sketches by Messrs. Alan Brown and Cyril Collins. The Melody Maids will sing popular songs at the piano with ukulele obligato.

4YA Features

THE service in Moray Place Congregational Church will be broadcast on Sunday evening. The Rev. Albert Mead will be the preacher.

At 8 o'clock on Sunday evening a service, conducted under the auspices of the combined churches will be held in the Empire Theatre. Rev. Lionel B. Fletcher will be the preacher.

At 7.30 on Monday evening "The Radio Man" will give a talk about wireless.

The well-known light opera, "The Chocolate Soldier," will be featured by The Majors Quartet on Monday evening. The supporting programme will be of an excellent miscellaneous type. Included will be two sketches by the Winkel-Lampen Radio Players. One of the sketches will be the highly-dramatical "Danger," in which effects play a very important part.

On Tuesday evening the St. Kilda Band, under Mr. James Dixon, will supply a programme of varied items. Miss Rita Holmes will sing the solo, "The Song of Carissima." "On Wings of Song" will be sung by Miss Irene Hornblow. These two vocalists will also be heard in duets, "The Little Old Garden" and "In Spring Time." There will be three elocutionary numbers by Miss Sheila Neilson.

On Wednesday evening 3YA's concert will be relayed.

On Friday evening the concert will be provided by Miss Meda Paine's Ladies' Choir. The programme will consist of concerted as well as solo numbers. The choir is an excellent combination, many fine soloists being in its ranks. A number of instrumental trios will also be played.

On Saturday evening 3YA will relay to 4YA.

Children's Sessions

AT 1YA.

TUESDAY, October 22—Happy stories from Uncle George, sweet songs from cousin May, and sketches from cousins Dorothy and Albert.

WEDNESDAY—Change round this evening. Cinderella will be in charge to-night, and Uncle Tom on Saturday night; cousins playing the piano.

THURSDAY—Who will entertain the radio fan this evening? Why, Peter Pan, of course, and he is sure to have something new to tell about his wonderful dog. Cousin Kirk, whose voice is so sweet, will sing a couple of songs.

FRIDAY—Nod and Aunt Jean will make the children's hour joyous with stories and songs, birthday greetings, and visits from the Radio Postman.

SATURDAY—No, not Cinderella, but Uncle Tom spending the hour in Radioland, so prepare for an hour full of fun and cheer. Cousins will present pianoforte items, and recitations.

SUNDAY—Children's Song Service, conducted by Uncle Leo, assisted by pupils from Knox Presbyterian Sunday School.

AT 2YA.

MONDAY, OCTOBER 21—Pupils of Mrs. E. Mackay will give the programme to-night. Uncle Jeff will send the cheery birthday messages and puzzles.

TUESDAY—There will be a welcome for three new little cousins to-night, Margory, Joan, and Maureen, who will entertain with recitations and songs. Cousin Dick will come too with his bagpipes. Uncle Jim will be here with birthday greetings and story.

THURSDAY—To-night the girls of the Technical College Choir are coming to sing. They will be conducted by Mr. V. Evans. Uncle George will give the greetings.

FRIDAY—Scouts to-night, boys, so listen in. The Karori Troop will be here under Mr. C. F. Clark with their jolly choruses, songs, and recitations. Brother Jack will give the birthday greetings, and Robinson will crow his cheery welcome.

SATURDAY—Joyce and Maurice will be here to-night, and a new little cousin named Ethel. Uncle Toby will be here and Aunt Gwen, too.

SUNDAY—The Children's Song Service will be conducted by Uncle George, assisted by the Northland Methodist Sunday School Choir, under Mr. H. Sellens.

AT 3YA.

MONDAY, OCTOBER 21.—Don't you all admire the beautiful peacocks? Well, to-night Scatterjoy will tell you all the interesting things she knows about these lovely birds. And "The Melody Maids" will charm you all with their singing.

WEDNESDAY—Mother Hubbard and Uncle Frank night—and they have all sorts of new stories and songs with little choruses, which they hope you will soon learn, and be able to join in with when you listen-in!

THURSDAY—Who is this? Oh, Mr. Uncle John, with his chippy little stories of girls who do right and

boys who can do no wrong! and Cousins Edna, Winfield and Nora, singing and reciting for us.

FRIDAY—Mr. Storyman is far away on his holiday, so we have another surprise for you—or have you guessed who it is that spoke to you last Friday? The Wharenui School Choir with choruses and songs for you, too.

SATURDAY—Who's for a trip to the Pirate Island with Peterkin, Derek, Desmond, Aunt Pat and Alice? All aboard the good ship "Yacki-hiki-doola," and ho-ho for a life on the ocean wave!

SUNDAY—Children's song service conducted by Rev. Rugby Pratt, assisted by the children from the Methodist Sunday School

Radio Abroad

TALKING pictures are a source of great enjoyment to the average picture-goer, but unfortunately those with defective hearing cannot attend the screenings for obvious reasons. However, an American theatre has now provided a section of the accommodation with headphones for each seat, so that people so afflicted might also enjoy the programmes. A control knob is fitted to each pair of 'phones, so that the volume may be regulated according to individual needs. Statistics show that there are fifteen million people in America with defective hearing, and the advent of the talkies might have taken away a potential source of amusement from these people had it not been for this installation for their benefit.

THE Post Office wireless direction-finding vans in England have been locating pirates and oscillators during the last few months with very great success, and over a thousand prosecutions have resulted. After tracing a "howler," the engineers in charge of the van warn him that a repetition of the offence may cause cancellation of his license. If this warning is ignored and the offence repeated, the offender is either prosecuted or his license is cancelled. These ether detectives act on information received, either from engineers or from people complaining of interference. These latter are forwarded a questionnaire asking for various details, and a pamphlet containing hints on how to locate the source of the trouble.

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Full Programmes for Next

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Sunday, October 20

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, OCTOBER 20.

- 3.0 : Afternoon session—Selected studio items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 6.0 : Children's session conducted by Uncle Leo.
 6.55: Relay of service from Auckland Unitarian Church (Preachers, Rev. Wilma L. Constable and Rev. Wm. A. Constable, M.A.; Organist, Mr. W. H. Wood).
 8.30 (approx.): Studio Concert:
 Herman Finck's Orchestra, "Schubertiana" (arrgd. Finck) (Columbia 02721).
 Soprano—Miss Reta McCullay, (a) "Home o' Mine" (Murdoch), (b) "Land o' the Leal" (Nairne).
 Pianoforte—Percy Grainger, "Country Gardens" (Grainger) (Columbia 03620).
 Bass-baritone—Mr. A. Gibbons Taylor, "Se Il Rigor" (Halevy).
 Cello—Miss Mollie Wright, "Sonata" (Valentini).
 Soprano—Miss R. McCullay, "Sleep and the Roses" (Bowles).
 Orchestra and chorus—"La Polonaise" (Moussorgsky) (Columbia 02799).
 Bass-baritone—Mr. A. G. Taylor, (a) "Il Lacerato Spirito" (Verdi), (b) "Night" (Claepius).
 Cello—Miss M. Wright, "Reverie" (Dunkler).
 Recital—Bransby Williams, "The Difference" (Longstaffe) (Columbia 01178).
 Band of H.M. Grenadier Guards, "The Princess of Kensington" Selection (German).
 9.30 (approx.): Close down.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, OCTOBER 20.

- 3.0 : Afternoon session.
 4.30: Close down.
 6.0 : Children's song service, conducted by Uncle George.
 7.0 : Relay of service from St. Andrew's Presbyterian Church—Preacher: Rev. R. Howie, B.A. Organist and Choirmaster: Mr. Frank Thomas.
 8.30: Relay from Palmerston North of concert organised by Mr. J. A. Nash, M.P., and Mr. F. Jackson, in aid of funds for relief of unemployment.
 Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, OCTOBER 20.

- 3.0 : Afternoon session—Selected studio items.
 4.30: Close down.
 5.30: Children's song service (children of the Anglican Sunday Schools).
 6.15: Hymn chimes from Studio.
 6.30: Studio Programme:
 Instrumental—Studio Trio, "Trio in A Minor—(a) Allegro, (b) Appassionata, (c) Presto" (Lalo).
 6.42: Organ—Arthur Meale, (a) "Pilgrim's Song of Hope" (Batiste), (b) "March on a Theme by Handel" (Guilmant) (H.M.V. C1277).
 6.50: Philadelphia Symphony Orchestra, "Toccatà and Fugue in D Minor" (Bach) (H.M.V. D1428).
 7.0 : Relay of service from Christchurch Anglican Cathedral (Preacher, Rev. E. C. Crosse; Organist and Musical Director, Dr. J. C. Bradshaw).
 8.20 (approx.): Vienna Philharmonic Orchestra, "Symphony No. 6 in F Major—First Movement, Allegro ma non Troppo" (Beethoven) (H.M.V. D1473).
 8.30: Rebroadcast of 2YA, Wellington (relay from Palmerston North of concert organised by Mr. J. A. Nash, M.P., and Mr. F. Jackson in aid of funds for the relief of unemployment).
 Close down.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, OCTOBER 20.

- 3.0 p.m.: Town Hall chimes.
 3.1: Selected gramophone items.
 4.30: Close down.
 5.30: Children's song service, conducted by Big Brother Bill.
 6.30: Relay of service from Moray Place Congregational Church. Preacher: Rev. Albert Mead. Choirmaster: Mr. Towns. Organist: Mr. McMillan.
 8.0: Relay from Empire Theatre of service conducted by the combined churches. Preacher: Rev. Lionel B. Fletcher.
 Close down.

Monday, October 21

1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, OCTOBER 21.

SILENT DAY.

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, OCTOBER 21.

- 3.0 : Chimes of the G.P.O. clock.
 3.1 : Selected gramophone items.
 4.30 and 4.55: Sports results to hand.
 5.0 : Children's session, conducted by Uncle Jeff.
 6.0 : Dinner session—"Columbia" Hour:
 Suite—Ketelbey's Concert Orchestra, "In a Fairy Realm" (Ketelbey):
 1. The Moonlit Glade. 2. The Queen Fairy Dances. 3. Gnomes. March (2694/5).
 6.12: Tacet.
 6.15: Columbia Symphony Orchestra, "March of the Bojaren" (Halvorsen) (02622).
 Cello—Gaspar Cassado, "Melodie Arabe" (Glazounov) (03579).
 New Queen's Hall Light Orchestra, "Wood Nymphs" (Coates) (02591).
 6.26: Tacet.
 6.30: New Queen's Hall Light Orchestra, "Summer Days Suite" (Coates):
 1. In a Country Lane. 2. On the Edge of the Lake. 3. At the Dance (02590-1).
 6.42: Tacet.
 6.45: J. H. Squire's Celeste Octet, "Memories of Mendelssohn" (Arrgd. Sear (02838).
 Columbia Symphony Orchestra, "Bridal Procession" (Grieg) (02622).
 6.57: Tacet.
 7.0 : News session, market reports and sports results.
 7.25: Lecturette—Mr. T. W. Brown, "Memories of the South African War—The Departure of the 1st Contingent, October 21, 1899."
 7.40: Lecturette—Mr. H. C. South, "Books—Grave and Gay."
 8.0 : Chimes of the G.P.O. Clock.
 8.1 : Relay from King George Theatre, Lower Hutt, of the Hutt Valley Choral Society's Second Concert of the 1929 Season:
 Overture—2YA Orchestra under the conductorship of Signor Truda—"Laughing Water" (Minnehaha Suite) (Coleridge-Taylor).
 Cantata—Hutt Valley Choral Society under the conductorship of Mr. Ernest Jenner. A.R.A.M.—"A Tale of Old Japan" (Coleridge-Taylor). Soloists:
 Soprano Mrs. F. C. Tunley.
 Contralto Miss Constance Flamank.
 Tenor Mr. W. E. Saunders.
 Bass Mr. R. Dellow.
 2YA Orchestra—"Pursuit" ("Minnehaha Suite") (Coleridge-Taylor).
 Weather report.
 2YA Orchestra—"T'Arlesienne" (Bizet).
 Bass—Mr. Rou Dellow, Selected.
 Cello—Mr. Claude Tanner, "Serenade Espagnole" (Glazounov).
 Contralto—Miss Constance Flamank, Selected.
 2YA Orchestra, (a) "Lovesong," (b) "The Home Coming" ("Minnehaha Suite") (Coleridge-Taylor).
 Part Songs—Hutt Valley Choral Society, "Songs of the Bavarian Highlands" (Elgar).
 Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, OCTOBER 21.

- 3.0 : Afternoon session—Selected gramophone items.
 4.25: Sports results to hand.
 5.0 : Children's session, conducted by "Scatterjoy."
 6.0 : Dinner session—"Parlophone Hour":
 Edith Lorand Orchestra, "Tales from the Vienna Woods" (Strauss) (E10624).
 Edith Lorand Orchestra, "Rustle of Spring", (Sinding) (E10543).
 6.12: Tacet.
 6.15: London Flute Quartet, (a) "Melody" ("Rosamunde") (Schubert); (b) "Bees' Wedding" (Mendelssohn).
 Selection—Edith Lorand Orchestra, "The Vagabond King" (Friml) (E10601).
 6.27: Tacet.
 6.30: Berlin State Opera House Orchestra, "Danse de la Fee Dragee" ("Nutcracker Suite") (Tchaikowsky) (E10517).
 Pianoforte—Godowski, "Rondo Capriccioso" (Mendelssohn) (50131).
 Edith Lorand Orchestra, "Prelude in C Sharp Minor" (Rachmaninoff) (A4040).

Week-all Stations-to Oct. 27

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- 6.42: Tacet.
 6.45: Selection—Frank Westfield's Orchestra, "Chu Chin Chow" (Norton) (A2678).
 Organ—Krumgold, "Gipsy Love Song" (Herbert) (A2339).
 Orchestra Mascotte, "Whispering of the Flowers" (Von Blon) (A2559).
 6.55: Tacet.
 7.0: News session.
 7.59: Relay from Civic Theatre of Amateur Boxing Tournament—Preliminary bouts and W. Carey v. Ted Morgan match. Also Heavy-Weight Challenge Match—Campbell v. Colin Gardiner.
 Close down.

4YA, DUNEDIN (650 KILOCYCLES).—MONDAY, OCTOBER 21.

- 3.0: Town Hall chimes.
 3.1: Selected gramophone items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Uncle Allan.
 6.0: Dinner session—"Parlophone" Hour:
 Overture—Berlin State Opera Orchestra, "Mignon" (Thomas) (E10557).
 Grand Symphony Orchestra, "Barcarolle" (Offenbach) (A4061).
 6.12: Tacet.
 6.15: Fantasia—Edith Lorand Orchestra, "Faust" (Gounod) (E10579).
 Pianoforte—Karol Szreter, "Fledermaus" (Strauss) (A4082).
 6.27: Tacet.
 6.30: Selection—Dajos Bela Orchestra, "La Tosca" (Verdi) (A4045).
 Violincello—Orabio de Castro, "Nocturne in E Flat" (Chopin) (E10581).
 6.42: Tacet.
 6.45: Overture—Grand Symphony Orchestra, "Fra Diavolo" (Auber) (A4022).
 Grand Symphony Orchestra—"Tales of Hoffman—Entr'acte and Minuet" (Offenbach) (A4061).
 6.57: Tacet.
 7.0: News session.
 7.30: Lecturette—"The Radio Man"—"Wireless."
 8.0: Town Hall chimes.
 8.1: Overture—Berlin State Opera Orchestra, "Mignon" (Thomas) (H.M.V. D1246).
 8.5: Presentation of the light opera "The Chocolate Soldier" (Strauss) by the Majors Quartet.
 8.35: 4YA Broadcasting Trio, (a) "My Heart at Thy Sweet Voice" ("Samson et Delilah") (Saint-Saens); (b) "Barcarolle" ("Tales of Hoffman") (Offenbach).
 8.43: Baritone—Mr. L. M. Cachemaille, "Lolita" (Allitsen).
 8.47: Sketch—Winkel-Lampen Radio Players, Selected.
 8.52: Pianoforte—Mrs. Ernest Drake, "Clair de Lune" (Debussy).
 8.56: Chorus—La Scala Chorus, "Chorus of the Bells" ("Pagliacci") (Leoncavallo) (H.M.V. C1317).
 9.0: Weather report.
 9.2: Royal Albert Hall Orchestra, "A Midsummer Night's Dream—Scherzo" (Mendelssohn) (H.M.V. D1627).
 9.6: Soprano—Miss Freda Elmes, (a) "June is in My Heart" (Vaughan); (b) "I Know a Bank" (Shaw).
 9.12: Tenor—Mr. J. Montague, "I Did Not Know" (Trottere).
 9.15: 4YA Broadcasting Trio, "Trio in D Minor—1st Movement" (Schumann).
 9.25: Sketch—Winkel-Lampen Radio Players, "Danger" (Hughes).
 9.41: Cello—Mr. P. J. Palmer, "Madrigal" (Squire).
 9.46: Contralto—Miss Dorothy Skinner, (a) "The Blacksmith" (Brahms); (b) "Caro Mio Ben" (Giordani).
 9.51: Violin—Mr. Frank Parsons, "Pale Moon" (Logan).
 9.56: Berlin State Opera Orchestra, "Second Polonaise" (Liszt) (H.M.V. D1625).
 10.0: Close down.

- 6.0: Dinner session—"Brunswick" Hour:
 Frank Black's Orchestra, "Count Luxembourg" waltzes (Lehar) (20052).
 Capitol Grand Orchestra, "Melodies from Herbert Operas" (2793).
 Pianoforte—Josef Hofman, "Turkish March" (Beethoven) (15057).
 6.13: Tacet.
 6.15: Minneapolis Symphony Orchestra, "Czardas" (Die Fliedermans) (Strauss) (15199).
 Violin—Frederick Fradkin, "Meditation" ("Thais" (Massenet) (20019).
 6.27: Tacet.
 6.30: Carl Fenton's Orchestra, "Queen High" medley (Gensler) (20047).
 Minneapolis Symphony Orchestra, "Der Freischutz" overture (Weber) (50088).
 6.43: Tacet.
 6.45: Metropolitan Opera House Orchestra, "Carmen—Entr'acte Act 3" (Bizet) (15106).
 Pianoforte—Josef Hofmann, "Waltz in C Sharp Minor" (Chopin) (15057).
 The A. and P. Gypsies, "Trasquita—Serenade" (Lehar) (3384).
 Metropolitan Opera House Orchestra, "Carmen—Entr'acte Act 4" (Bizet) (15106).
 6.58: Tacet.
 7.0: News session.
 7.15: Talk—Mr. George Campbell, "Motoring."
 7.30: Market reports.
 8.0: Chimes.
 8.1: Halle Orchestra, "Queen Mab" Scherzo ("Romeo and Juliet") (Berlioz) (Columbia 04027).
 8.9: Baritone—Mr. Ernest Snell, "Like Death's Grim Shadow" ("Tannhauser") (Wagner).
 8.13: Recital—Mr. Allan McSkimming, "Hamlet's Soliloquy" (Shakespeare).
 8.17: New Queen's Hall Orchestra, "The Ride of the Valkyries" (Wagner) (Columbia 04128).
 8.21: Soprano—Miss Helen Taylor, (a) "I Dreamt That I Dwelt in Marble Hall" ("Bohemian Girl") (Balfe); (b) "When All Was Young" ("Faust") (Gounod).
 8.28: Studio Trio—"Mazurka" ("Halka") (St. Moniuszko).
 8.37: Tenor—Mr. Roger Errington, "Mary" (Richardson).
 8.41: Halle Orchestra, "Dance of the Sylphes" ("Damnation of Faust") (Berlioz) (Columbia 04155).
 8.45: Contralto—Mrs. M. E. Hobday, (a) "I Stood on De Ribber ob Jordan" (Negro Spiritual) (Burleigh); (b) "Thoughts" (Fisher).
 8.52: Violin—Miss Ina Bosworth, (a) "Rosamunde" (Schubert); (b) "Song of India" (Rimsky-Korsakov).
 8.56: Weather report.
 8.58: Talk—Mr. A. B. Chappell, M.A., Topical Talk.
 9.13: Selection—Royal Guards Band, "Romeo and Juliet" (Gounod) (Columbia 189).
 9.17: Baritone—Mr. E. Snell, (a) "Ombra Mai Fu" ("Xerxes") (Handel); (b) "La Girmetta" (Frottala).
 9.24: Recitals—Mr. Allan McSkimming, (a) "Home, Sweet Home" (Anon); (b) "College Revisted" (MS).
 9.30: Cello—Pablo Casals, "Gavotte in D" (Popper) (Columbia 7358).
 9.34: Soprano—Miss H. Taylor, "Knowest Thou That Fair Land" ("Mignon") (Thomas).
 9.38: Tenor—Mr. Roger Errington, (a) "Angels Guard Thee" (Godard); (b) "Megan" (Novello).
 9.45: Studio Trio—"Two Light Syncopated Pieces" (Coates).
 9.53: Contralto—Mrs. M. E. Hobday, "Danny Boy" (Weatherly).
 9.57: Selection—Silver Star Band, "The Geisha" (Jones), (Regal G8189).
 10.3: Close down.

2YA, WELLINGTON (720 KILOCYCLES).—TUESDAY, OCTOBER 22.

- 3.0: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.50: Sports results to hand.
 5.0: Children's session, conducted by Uncle Jim.
 6.0: Dinner session—"His Master's Voice" Programme:
 Overture—Creatore's Band, "Semiramide" (Rossini) (C1420).
 Violin with organ—Chas. Williams, "Annie Laurie" (Scott) (Zonophone 5280).
 Marek Weber's Orchestra, "Rustle of Spring" (Sinding) (C1630).
 6.13: Tacet.
 6.15: Jack Hylton's Orchestra, "Good Old Songs" (C1592).
 Hawaiian—Hilo Hawaiian Orchestra, "Sparkling Waters of Waikiki" (Davis-Williams).
 Organ—Reginald Foort, "The Desert Song" (Romberg) (B2463).
 6.29: Tacet.
 6.30: Waltz—Marek Weber's Orchestra, "My Darling" (Waldteufel) (C1630).

Tuesday, October 22

1YA, AUCKLAND (900 KILOCYCLES).—TUESDAY, OCTOBER 22.

- 3.0: Afternoon session—selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Studio items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Uncle George.

Organ—Reginald Foort, "Riff Song" (Romberg) (B2463).
International Concert Orchestra, "Lazy Pete" (Intermezzo) (Werner) (Zonophone 5221).
International Concert Orchestra, "Parade of the Wooden Soldiers" (Jessel) (Zonophone 5221).

6.43: Tacet.

6.45: Piccadilly Orchestra, (a) "Songs My Mother Taught Me" (Dvorak); (b) "Together" (De Sylva) (B2662).

Idyll—New Light Symphony Orchestra, "The Glow Worm" (Lincke) (Zonophone EF20).

Waltz—La Vittoria Orchestra, "Wedding of the Winds" (Hall) (Zonophone EF21).

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

7.40: Lecturette—Representative, Agricultural Department—"For the Man on the Land."

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

8.1: Overture—2YA Salon Orchestra, under the conductorship of Mr. M. T. Dixon, "Hungarian Lustspiel" (Kela Bela).

8.9: Soprano—Miss Greta Stark, "A Geisha's Life" ("Geisha Girl") (Jones).

8.13: Baritone—Mr. Claude Moss, (a) "Flor di mi Corazon" (Woodforde-Finden); (b) "Serenade" (Woodforde-Finden).

8.19: 2YA Salon Orchestra, "Ballet Russe" Part 2 (Luigini).

8.27: Humour—Miss Dorothy Seymour, "Er Upstairs" (Wish Wynne).

8.33: Jazz, vocal, and pianoforte numbers—Messrs. Edward Silver and Bert Burton.

8.40: 2YA Salon Orchestra, (a) "Talisman" Waltz (Drigo); (b) "Entry of the Boyards" (Halvorsen).

8.48: Soprano—Miss Greta Stark, (a) "Queen of the Philippine Islands" ("Florodora") (Stuart); (b) "The Amorous Goldfish" ("The Geisha") (Jones).

8.55: Instrumental—2YA Salon Orchestra, request number.

9.0: Weather report.

9.2: Baritone—Mr. Claude Moss, "Invitation to the Dance" (Woodforde-Finden).

9.6: Humour—Miss Dorothy Seymour, "I Don't Care" (Wish Wynne).

9.12: 2YA Salon Orchestra, "Libestraume" (Liszt).

9.17: Vocal and pianoforte jazz numbers—Messrs. Edward Silver and Bert Burton.

9.24: 2YA Salon Orchestra, "Glory of Russia" (Kreen).

9.30: "Columbia" Dance Programme:

Foxtrot—Paul Specht's Orchestra, "My Annapolis and You" (Weinberg) (01539).

Foxtrot—Ben Selvin's Orchestra, "Honey" (Simons) (01525).

Foxtrot—Paul Specht's Orchestra, "The Things That Were Made for Love" (Tobias) (01525).

Waltz—Gil Dech's Syncopators, "I'll Always Be In Love With You" (Ruby) (01520).

9.42: Humour—Michael Casey, "Casey Taking the Census" (Regal G7115).

Foxtrot—Ipana Troubadours, "Deep Night" (Henderson) (01539).

Foxtrot—Gil Dech's Syncopators, "My Mammy" (Lewis) (01520).

Foxtrot—Ipana Troubadours, "Old Fashioned Lady" (Silver) (01561).

Waltz—Paul Whiteman's Orchestra, "The Sidewalks of New York" (Lawlor) (07014).

9.57: Hawaiian—Norman Clark's South Sea Islanders, "Good-bye, Hawaii" (Bories) (01225).

Foxtrot—Ben Selvin's Orchestra, "The One in the World" (Little) (01594).

Foxtrot—Paul Whiteman's Orchestra, "Nola" (Arndt) (07022).

Waltz—Paul Whiteman's Orchestra, "My Angeline" (Wayne) (0720).

Waltz—Ben Selvin's Orchestra, "Out of the Tempest" (Grossman) (01367).

10.12: Baritone—Art Leonard, "The King of Borneo" (Crumit) (Regal G20498).

Foxtrot—Ben Selvin's Orchestra, "I'm Just a Vagabond Lover" (Yellen) (01594).

Foxtrot—Royal Canadians, "I'm Still Caring" (Vallee) (01560).

Foxtrot—Wille Greager's Orchestra, "On Top of the World Alone" (Whiting) (Regal G20257).

Foxtrot—Royal Canadians, "After Thinking it Over" (Davis) (01560).

10.27: Accordion solo—Johnnie Sylvester, "Waltz Medley" (Regal G20350).

Foxtrot—Harry Reser's Syncopators, "It Ain't No Fault of Mine" (Davis) (01554).

Foxtrot—Guy Lombardo's Royal Canadians, "This is Heaven" (Yellen) (01632).

Waltz—Cavaliers, "Underneath the Russian Moon" (Gusman) (01546).

Waltz—Columbians, "Christina" (Gottler) (01585).

10.42: March—Italian Orchestra, "Old Comrades" March (Teike) (Regal G20488).

Foxtrot—Lombardo's Royal Canadians, "I Get the Blues when it Rains" (Weaver) (01632).

Foxtrot—Paul Whiteman's Orchestra, "Chinese Lullaby" (Bowers) (07020).

Comedy foxtrot—Piccadilly Players, "I'm Tickled to Death I'm Me" (Butler) (01567).

Waltz—Andy Sanella's Trio, "Evangeline" (Jolson) (01630).

11.0: Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, OCTOBER 22
SILENT DAY.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, OCTOBER 22

3.0: Town Hall chimes.

3.1: Selected gramophone items.

4.25: Sports results to hand.

5.0: Children's session, conducted by Big Brother Bill.

6.0: Dinner session—"His Master's Voice" Hour:

Waltz—International Concert Orchestra, "Waltz Dream" (Strauss) (Zonophone EF18).

London Symphony Orchestra, "Czar Sultan Suite" No. 3 (Rimsky-Korsakov) (D1491).

6.12: Tacet.

6.15: New Light Symphony Orchestra, "Peer Gynt Suite" No. 2 (Grieg): 1. Ingrid's Lament. 2. Arabian Dance (C1571).

New Light Symphony Orchestra, "Prelude in G Minor" (Rachmaninoff) (Zonophone EF24).

6.27: Tacet.

6.30: New Light Symphony Orchestra, "Peer Gynt Suite" No. 2 (Grieg): "Solveig's Song" (C1572).

New Light Symphony Orchestra, "Prelude in C Sharp Minor" (Rachmaninoff) (Zonophone EF24).

6.42: Tacet.

6.45: Philadelphia Symphony Orchestra, "Dance Orientale" (Glazounov) (E521).

Waltz—International Concert Orchestra, "Sari" (Kalman) (Zonophone EF18).

Philadelphia Symphony Orchestra, "March of the Caucasian Chief" (Ippolitoff-Iwanoff) (E521).

6.57: Tacet.

7.0: News session.

8.0: Town Hall chimes.

Studio concert by the St. Kilda Band, under the conductorship of Mr. James Dixon, and assisting artists:

8.1: March—Band, "Vedette" (Alford).

8.7: Vocal duets—Misses Rita Holmes and Irene Horniblow, (a) "The Little Old Garden" (Hewitt); (b) "In Springtime" (Newton).

8.12: Ufika Jubilee Singers, (a) "Climbing up the Mountain;" (b) "Angels Watching Over Me" (Zonophone 5159).

8.16: Descriptive intermezzo—Band, "On a Sunday Morn" (Horne).

8.24: Baritone—Mr. Arthur W. Alloo, "In Summertime on Bredon" (Peel).

8.28: Selection—Marek Weber's Orchestra, "Vienna by Night" (Komzak) (H.M.V. C1507).

8.32: Recital—Miss Sheila Neilson, "The Last Shot" (Reid).

8.38: Overture—Band, "Fair Maid of Perth" (Volpi).

8.48: Contralto—Miss Irene Horniblow, "On Wings or Song" (Mendelssohn).

8.51: Wurlitzer organ—Jesse Crawford, "I've got a Feeling I'm Falling" (Rose) (H.M.V. EA566).

8.55: Weather report.

8.58: Selection—Band, "In a Chinese Temple Garden" (Ketelbey).

9.8: Medley—Male Chorus, "Plantation Songs" (H.M.V. C1585).

9.16: Euphonium solo with band accompaniment, "For You Alone" (Gheel).

9.24: Soprano—Miss Rita Holmes, "The Song of Carissima" (Penn).

9.27: Waltz—Band, "Desdemona" (Carter).

9.36: Recitals—Miss Sheila Neilson, (a) "Bredon Hill," (b) "Vegetarians" (Constanduros).

9.45: Baritone—Mr. Arthur W. Alloo, (a) "Pagan" (Lohr); (b) "O Than Me Not" (Mallinson).

9.51: March—Band, "Dunedin" (Alford).

10.0: Close down.

Wednesday, October 23

1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, OCTOBER 23.

3.0: Afternoon session—selected studio items.

4.0: Literary selection by Announcer.

4.8: Studio items.

4.25: Sports results to hand.

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

6.0: Dinner session—"His Master's Voice" Hour:

New Light Symphony Orchestra, "Spanish Dances" (Granados): 1. Orientale; 2. Andalous; 3. Rondalla Aragonesa (C1553/4).

6.13: Tacet.

6.15: Horwich R.M.I. Band, "A Rural Wedding" (Cope) (Zonophone 2474).

Cello—Cedric Sharpe, "Minuet" (Beethoven) (B2390).

De Groot and Piccadilly Orchestra, "The Dansant" (Fletcher) (B2397).

6.28: Tacet.

6.30: Piccadilly Orchestra, "Serenade Neapolitaine" (Drigo) (B2397).

Black Diamonds Band, (a) "Absent" (Metcalfe); (b) "The English Rose" (German) (Zonophone 1372).

Salon Orchestra, "Un Peu d'Amour" (Silesu) (B2415).

Cello—Cedric Sharpe, "Serenade" (Pierne) (B2390).

6.43: Tacet.

6.45: Salon Orchestra, "Little Star" (Ponce) (B2415).

Victor Symphony Orchestra, "Toy Symphony" (Haydn): 1. Allegro Moderato; 2. Minuet and Finale (Zonophone 3546).

Band—Black Diamonds, "Carry On" March (arrgd. Hume) (Zonophone 1872).

6.58: Tacet.

7.0: News and market reports.

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

8.0: Chimes.

8.1: Vocal duet—Misses A. McGruer and B. Smith, "I Wish I Were a Tiny Bird" (Lohr).

8.5: Pianoforte solo—Mr. Eric Maxwell, "Humoresque" ("Miniature Suite") (Bowen).

8.9: Baritone—Mr. Stan Pritchard, "Brian of Glenaar" (Graham).

8.16: Recital—Mrs. Betty Bell, "Buying a Car" (Anon.).

8.21: Trumpet solo—Mr. R. Sproul, "Softly Awakes My Heart" (Saint-Saens).

8.25: Soprano—Miss Alma McGruer, (a) "Hedge Roses" (Schubert); (b) "Charm of Spring" (Coningsby Clarke).

8.32: Baritone—Mr. S. Pritchard, (a) "The Arrow and the Song" (Balfe); (b) "Coming Some" (Willeby).

8.36: Pianoforte—Mr. E. Maxwell, (a) "Noel" (Gardiner); (b) "Finnish Folk Song" (Merikanto).

8.42: Contralto—Miss B. Smith, (a) "A Feast of Lanterns" (Bantock); (b) "An Epitaph" (Besly).

8.49: Recitals—Mrs. Betty Bell, (a) "The Woman who Took Advice" (Daskam); (b) "The Woman who Helped Her Sister" (Daskam).

8.54: Trumpet solos—Mr. R. Sproul, (a) "Polka les Folies" (Waldteufel); (b) "Parted" (Tosti).

9.1: Weather report.

9.3: Vocal duet—Misses McGruer and Smith, "Shepherdess and Beau Brocade" (Phillips).

9.7: Novelty—The Asquiths, Twenty Minutes' Drawingroom Entertainment.

9.27: Gramophone records review—A Commentator, "Latest Parlophone Recordings."

10.0: Close down.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, OCTOBER 23.

SILENT DAY.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, OCT. 23.

3.0: Afternoon session—selected gramophone items.

4.25: Sports results to hand.

5.0: Children's session, conducted by "Mother Hubbard" and Uncle Frank.

6.0: Dinner session—"His Master's Voice" Hour:

National Symphony Orchestra, "La Traviata" (Verdi) (EB24).

Violin—Jascha Heifetz, "On Wings of Song" (Mendelssohn) (DB283).

Royal Opera Orchestra, "In the Hall of the Mountain King" ("Peer Gynt" Suite) (Grieg) (C1299).

6.12: Tacet.

6.15: Virtuoso String Quartet, "Mignon—Gavotte" (Thomas) (B2784).

Royal Opera Orchestra, "Berceuse" (Jarnefeldt) (B2618).

Male quartet—Lough, Mallet, Dixon, and Hastwell, "Drink to Me Only With Thine Eyes" (arrgd. Ball) (B2770).

Victor Concert Orchestra, "Minuet in G" (Paderewski) (EA240).

6.27: Tacet.

6.30: Violin and orchestra—Fritz Kreisler and Berlin State Opera House Orchestra, "Adagio—Violin Concerto, Op. 77" (Brahms) (DB1128).

National Symphony Orchestra, "Aida" Selection (Verdi) (Zonophone A340).

Grand organ—Edwin Lemare, "Traumeri" (Schumann) (C1455).

6.42: Tacet.

6.45: Philadelphia Symphony Orchestra, "Invitation to the Waltz" (Weber) (D1285).

San Francisco Symphony Orchestra, "Liebeslied" (Kreisler) (ED6).

6.55: Tacet.

7.0: News session.

7.30: Addington Stock Market reports.

8.0: Chimes.

8.1: Overture—Studio Instrumental Octet, under the conductorship of Mr. Harold Beck, "La Source Ballet" (Delibes): 1. Scarf Dance; 2. Love Scene; 3. Danse Circassienne.

8.9: Mezzo-soprano—Miss Anita Graham, "Here Am I in Her Boudoir" ("Mignon") (Thomas).

8.13: Pianoforte—Miss Bessie Pollard, "Seux Sollets" (Liszt).

8.18: Tenor—Mr. Percy Nicholls, (a) "Spirito Gentil" ("La Favorita") (Donizetti); (b) "Questa o Quella" ("Rigoletto") (Verdi).

8.25: Royal Opera Orchestra, "Faust Ballet Music" (5th and 6th Movements—Moderato con moto—Allegretto) (Gounod) (H.M.V. C1463).

8.29: Contralto—Miss Marian Woodhouse, (a) "Voi Che Sapete" ("Marriage of Figaro") (Mozart); (b) "The Asra" (Rubinstein).

8.33: Studio Octet—(a) "March and Habanera" ("Carmen") (Bizet); (b) "Toreador's Song" ("Carmen") (Bizet).

8.41: Concerted—Victor Male Chorus, (a) "Pilgrims' Chorus" ("Tannhauser") (Wagner); (b) "Anvil Chorus" ("Il Trovatore") (Verdi) (H.M.V. EA89).

8.47: Baritone—Mr. Clive Hindle, (a) "Oh, Lady Bright" (Mehul); (b) "Song of Bacchus" ("Hamlet") (Thomas).

8.54: Victor Symphony Orchestra—"Dance of the Hours" ("La Gioconda") (Ponchielli) (Zonophone EF12).

9.2: Weather report.

9.4: Studio Octet—"Second Selection from Gilbert and Sullivan Opera" (Sullivan).

9.16: Mezzo-soprano—Miss Anita Graham, (a) "It is Better to Laugh than be Sighing" ("Lucrezia Borgia") (Donizetti); (b) "Love the Jes-ter" (Phillips).

9.22: Pianoforte—Miss Bessie Pollard, "Toccata" (Saint-Saens).

9.26: Tenor—Mr. Percy Nicholls, (a) "Che Gelida Manina" (The Poet's Song from "La Boheme") (Puccini); (b) "Arioso" (On With the Motley) ("I Pagliacci") (Leoncavallo).

9.33: Studio Octet—"Barcarolle" ("Tales of Hoffman") (Offenbach); (b) "Gavotte—Mignon" (Thomas).

9.39: Chorus—Royal Opera Chorus, "Hum, Hum, Good Wheel, go Whirling" (Spinning chorus from "The Flying Dutchman") (Wagner) (H.M.V. D1517).

9.43: Contralto—Miss Marian Woodhouse, (a) "L'Heure Exquise" (Hahn); (b) "Saper Voreste" ("Un Ballo in Maschera") (Verdi).

9.49: Studio Octet—(a) "Laguna Lullaby" (Hope); (b) "Serenade" (Ern).

9.55: Baritone—Mr. Clive Hindle, "How Badly is the Course of Life Adjust-ed" ("Trompeter von Sakkingen") (Nessler).

9.59: Royal Opera Orchestra, "Faust Ballet Music—7th Movement—Vivo" (Gounod) (H.M.V. C1463).

10.3: Close down.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, OCTOBER 23.

3.0: Town Hall chimes.

3.1: Selected gramophone items.

4.25: Sports results to hand.

5.0: Children's session, conducted by Aunt Anita.

6.0: Dinner Session—"Columbia" Hour:

Waltz—Symphony Orchestra, "Artists Life" (Strauss), (02577).

Columbia Symphony Orchestra, "Al Fresco" (Herbert) (01092).

Foxtrot—La Nuova Orchestra, "Di Napoli" (Romani) (3066).

Band of H.M. Grenadier Guards, "La Paloma" (Yradier) (0087).

6.13: Tacet.

6.15: Ketelbey's Concert Orchestra, "In a Monastery Garden" (Ketelbey) (02688).

Waltz—Jacque Jacobs Ensemble, "Over the Waves" (Rosas) (02556).

6.27: Tacet.

6.30: Columbia Symphony Orchestra, "Bandinage" (Herbert) (01092).

Waltz—Royal Serbian Tambouritzza Orchestra, "Kosovo" (3066).

Waltz—Symphony Orchestra, "Tales From the Vienna Woods" (Strauss) (02577).

March—H.M. Grenadier Guards Band, "Twist and Twirl" (Kottau) (0087).

6.43: Tacet.

6.45: Waltz—Royal Philharmonic Orchestra, "Blue Danube" (Strauss) (04169).

Waltz—Jacque Jacobs Ensemble, "España" (Waldteufel) (02560).

6.57: Tacet.

7.0: News session.

8.0: Town Hall chimes.

8.1: Relay of 3YA Christchurch (operatic programme).

10.0: "Columbia" Dance Programme:

Foxtrot—Will Pryor's Band, "I Faw Down an' Go Boom!" (Brockman) (01518).

Foxtrot—Ipana Troubadours, "Building a Nest for Mary" (Greer) (01617).

Foxtrot—Leo Reisman's Orchestra, "Wedding of the Painted Doll" (Brown) (01497).

Foxtrot—Stellar Dance Band, "If I Had You" (Shapiro) (Regal G20456).

10.12: Mouth organ novelty—P. C. Hopkinson, "Scottish Airs" (Trdtl.) (5410).

Foxtrot—Starita's Ambassadors, "Wake Up, Chillun, Wake Up" (01595).

Foxtrot—Leo Reisman's Orchestra, "Kiddies Kabaret" (Sizemore) (01497).

Foxtrot—Thelma Terry's Orchestra, "When Sweet Susie Goes Steppin' By" (Henderson) (01403).

Waltz—Gil Dech's Syncopators, "I'll Always Be in Love With You" (Ruby) (01520).

Waltz—The Cavaliers, "Lady Divine" (Shilkret) (5402).

10.30: Vocal duet—Layton and Johnstone, "A Room With a View" (Coward) (01482).

Foxtrot—Ted Wallace's Campus Boys, "Mean To Me" (Turk) (01514).

Foxtrot—Joe Garber's Orchestra, "Guess Who" (Davidson) (01489).

Foxtrot—Gil Dech's Syncopators, "My Mammy" (Lewis) (01520).

Foxtrot—The Knickerbockers, "Who Wouldn't Be Jealous of You" (Shay) (5402).

10.45: Mouth organ solo—P. C. Hopkinson, "Irish Airs" (Trdtl.) (5410).

Foxtrot—Paul Whiteman's Orchestra, "Seventh Heaven" (de Sylva) (07023).

Foxtrot—Al Starita's Piccadilly Band, "Try to Learn to Love" (Coward) (01420).

Waltz—Piccadilly Players, "Lisette" (Mayor) (01568).

Waltz—The Cavaliers, "My Dear" (Kahn) (01646).

11.0: Close down.

Thursday, October 24

1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, OCTOBER 24.

- 3.0 : Relay of concert from Messrs. Lewis Eady, Ltd.
 4.25: Sports results to hand.
 5.0 : Children's session, conducted by Peter Pan.
 6.0 : Dinner session—"Columbia" Hour:
 Paul Whiteman's Orchestra, "Concerto in F—1st Movement, Allegro" (Gershwin) (07506/7).
 6.13: Tacet.
 6.15: Paul Whiteman's Orchestra, "Concerto in F—Second Movement, Andante con Moto" and "Third Movement—Allegro con Brio" (07507/8).
 6.28: Tacet.
 6.30: Christie Unit Organ, "Bells Across the Meadows" (Ketelbey) (Regal G8855).
 Hawaiian—South Sea Islanders, "Song of Hawaii" (Bories) (Regal G20081).
 Violin—George Lipschultz, "At Dawning" (Cadman) (Regal G20155).
 Albert Sandler's Orchestra, "Someday, Somewhere" (Rapee) (01521)
 6.43: Tacet.
 6.45: Hawaiian—South Sea Islanders, "Hawaii Hula Medley" (Cunha) (Regal G20081).
 Cello—W. H. Squire, "Spinning Wheel" (Dunkler) (03611).
 Banjo—Vess L. Ossman, "Moose March" (Flash) (Regal G6199).
 National Military Band, "The Jolly Coppersmith" (Peter) (1076).
 6.57: Tacet.
 7.0 : Book review.
 7.20: News and market reports.
 8.0 : Chimes.
 8.1 : Presentation of a novelty programme "A Dreadnoughtical Night" by "The Minus Fives."
 9.30: "Broadcast" Dance Programme:
 Los Angeles Ambassadors, "Heigh-Ho, Everybody" (Foxtrot) (W502).
 Foxtrot—Roxy Dance Orchestra, "My Sin" (De Sylva) (W500).
 Foxtrot—Roxy Dance Orchestra, "Jericho" (Robin) (W501).
 Waltz—Original Havana Band, "Ah! Sweet Mystery of Life" (Herbert) (327).
 Waltz—Bidgood's Broadcasters, "For Old Time's Sake" (329).
 9.45: Hawaiian—Kimo Koa's Hawaiian Orchestra, "A Hula Dream" (335).
 Foxtrot—Los Angeles Ambassadors, "Honey" (Simons) (W502).
 Foxtrot—Roxy Dance Orchestra, "Mean to Me" (Turk) (W500).
 Foxtrot—Roxy Dance Orchestra, "Do Something" (W501).
 Foxtrot—Original Havana Band, "Out of the Dawn" (327).
 10.0 : Hawaiian—Kimo Koa's Hawaiian Trio, "Song of Hawaii" (Bories) (335).
 Foxtrot—Californian Melody Makers, "Fashionette" (Glogau) (BA127).
 Foxtrot—Original Havana Band, "Glad-Rag Doll" (Yellen) (351).
 Foxtrot—Bidgood's Symphonic Dance Band, "If I Had You" (Robins) (353).
 Waltz—Californian Melody Makers, "I Wonder If you Miss Me Tonight" (BA128).
 Waltz—Original Havana Band, "Chiquita" (BA96).
 10.18: Organ—Herbert Griffiths, "The Monk's Dream" (Palings) (383).
 One-step, Bidgood's Augmented Dance Band, "Community Medley" (50541).
 Foxtrot—Original Havana Band, "Dusky Stevedore" (Razaf) (351).
 Foxtrot—Bidgood's Broadcasters, "I Ain't Never Been Kissed" (Bassett) (354).
 Foxtrot—Bidgood's Broadcasters, "Misery Farm" (355).
 Waltz—Bidgood's Symphonic Dance Band, "Girl of My Dreams" (353).
 Waltz—Californian Melody Makers, "Carolina Moon" (Davis) (BA113).
 10.39: Hawaiian—Hawaiian Melody Makers, "Sarita" (406).
 One-step—Original Havana Band, "Shinaniki Da" (Carlton) (374).
 Foxtrot—Californian Melody Makers, "Hello, Sunshine, Hello" (BA127).
 Foxtrot Original Havana Band, "Sweet Sue, Just You" (Harris) (BA97).
 Foxtrot—Original Havana Band, "Blue Grass" (De Sylva) (BA96).
 11.0 : Close down.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, OCTOBER 24.

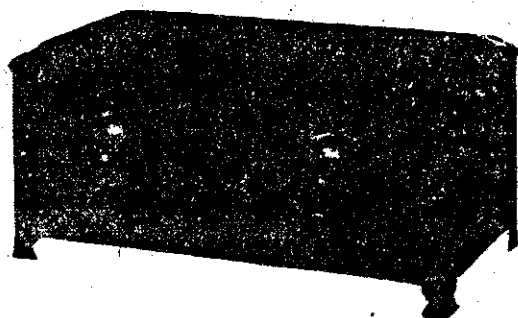
- 2.0 Chimes of the G.P.O. clock.
 2.1 : Selected gramophone items.
 4.30 and 4.50: Sports results to hand.
 5.0 : Children's session, conducted by Uncle George.
 6.0 : Dinner Session—"Parlophone" Hour:
 Overture—Grand Symphony Orchestra, "Light Cavalry" (Suppe) (A4001).
 Frank Westfield's Orchestra, "Classica" Selection (arrgd. Tilsley) (A2195).
 6.14: Tacet.
 6.15: Grand Symphony Orchestra, "Merry Wives of Windsor" (Nicolai) (A4083).

- Edith Lorand Orchestra, (a) "Wine, Women and Song" waltz (Strauss); (b) "Roses of the South" (Strauss) (A2500).
 6.29: Tacet.
 6.30: Berlin Opera House Orchestra, "Coppelia Fantasy" (Delibes) (A5026).
 Dajos Bela Orchestra, "Schatz" waltz (Strauss) (A4110).
 6.42: Tacet.
 6.45: Edith Lorand Orchestra, "Vienna by Night" (Komzak) (A4093).
 Waltz—Dajos Bela Orchestra, "Moonlight on the Alster" (Fetras) (A4110).
 6.57: Tacet.
 7.0 : News session.
 7.40: Lecturette—Mr. A. J. Nicholls, representative Hutt Valley Horticultural Society, "Gardening."
 8.0 : Chimes of the G.P.O. clock.
 Studio concert by the Wellington City Salvation Army Band, under the conductorship of Mr. H. Scotney, and assisting artists.
 8.1 : March—Band, "Sons of the Army" (Coles).
 8.6 : Selection—Band, "Jubilation" (Coles).
 8.13: Tenor—Mr. Chas. Williams, "Lorraine" (Sanderson).
 8.17: Baritone—Mr. Will Goudie, (a) "The Rose" (Johnson); (b) "Shadow March" (Del Riego).
 8.24: Cornet solo with band accompaniment—Bandsman Dutton, "Silver Threads" (Twitche).
 8.31: Songs at piano—Mr. W. Gatheridge, (a) "Daddy and Babsy" (Levey); (b) "April Fool" (Gartham).
 8.38: Selection—Band, "Gems from Haydn" (Hawkes).
 8.46: Mezzo-soprano—Mrs. Gwen Clayton, "Were I a Moth" (Montague Phillips).
 8.50: Waltz—International Novelty Orchestra, "Jolly Fellows" (Vollstedt) (Zonophone EF27).
 8.54: Meditation—Band, "O God Our Help in Ages Past" (Ball).
 9.1 : Weather report.
 9.3 : Lecturette—Mr. Johannes Andersen, "Maori Music."
 9.18: Selection—Band, "Discipleship" (Coles).
 9.26: Bass—Mr. W. Binet Brown (a) "Drake's Drum" (Stanford); (b) "The Old Superb" (Stanford).
 9.33: Mezzo-soprano—Mrs. Gwen Clayton, (a) "Don't Hurry" (Sanderson); (b) "My Desire" (Cadman).
 9.40: Selection—Band, "The Good Shepherd" (Psalm XXIII) (Marshall).
 9.45: Vocal duet—Messrs. Will Goudie and Charles Williams, "The Lovers" (Lane Wilson).
 9.49: Waltz—International Novelty Orchestra, "Amoureuse" (Berger) (Zonophone EF27).
 9.53: Vocal quartet—Lyric Quartet, "Sailors' Chorus" (Parry).
 9.57: March—Band, "Under Two Flags" (Coles).
 10.2 : Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY OCTOBER 24.

- 3.0 : Afternoon session—selected gramophone items.
 4.25: Sports results to hand.
 5.0 : Children's session, conducted by Uncle John.
 6.0 : Dinner session—"His Master's Voice" Hour:
 Overture—Berlin State Opera House Orchestra, "Magic Flute" (Mozart) (H.M.V. E464).
 Nightingales and church bells—"A Summer Night Idyll" (B2853).
 Salon Orchestra, "Serenade" (Schubert) (BA358).
 6.12: Tacet.
 6.15: Organ—Albert Schweitzer, "Prelude and Fugue in E Minor" (Bach) (E1532).
 San Francisco Symphony Orchestra, "Coppelia Ballet" (Delibes) (D1272).
 6.27: Tacet.
 6.30: San Francisco Symphony Orchestra, "Rosamunde—Entr'acte" (Schubert) (D1568).
 Violin—Erica Morini, "Romanza Andaluza" (Sarasate) (D1445).
 New Light Symphony Orchestra, "Solveig's Song" ("Peer Gynt Suite") (Grieg) (C1572).
 6.42: Tacet.
 6.45: Flute—John Amadio, "Adagio—Flute Concerto" (Mozart) (C1553).
 Philadelphia Symphony Orchestra, "Lohengrin—Prelude" (Wagner) (D1463).
 6.55: Tacet.
 7.0 : Lecturette by Mr. R. G. Robinson (Superintendent Selwyn Plantations Board)—"Shelter Belts for Farms" (arranged under the auspices of the 3YA Primary Productions Committee).
 7.30: News session.
 8.0 : Chimes.
 8.1 : Studio Instrumental Octet, under the conductorship of Mr. Harold Beck—(a) "Minuet" ("Symphony in G Minor") (Mozart, arrgd. Carse); (b) "Valse Triste" (Sibelius).
 8.11: Baritone—Mr. W. H. Inkster, "Invictus" (Huhn).
 8.15: Soprano—Miss Eileen Grennell, selection from "La Tosca" (Puccini).
 8.19: String Quartet—Misses Irene Morris and Florence Millar and Messrs. Harold Beck and Russell Bond, "Minuet in G" (Beethoven).
 8.26: Tenor—Mr. L. C. Quane, "Goodnight, Goodnight, Beloved" (Balfé).
 8.30: Concerted—Light Opera Company, (a) Gems from "Cavalleria Rusticana" (Mascagni); (b) Gems from "I Pagliacci" (Leoncavallo) (H.M.V. EB27).
 8.38: Studio Octet—"Suite in D" (Bach): 1. Gavotte; 2. Bouree; 3. Air; 4. Gigue.

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- 8.51: Contralto—Miss Nellie Lowe, (a) "Ships That Pass in the Night" (Stephenson); (b) "Break, Break, Break" (Carey).
 8.58: Choral—Lady Vicars of Westminster Abbey, "Stars of the Summer Night" (Cruikshank) (H.M.V. B2781).
 9.1: Weather report.
 9.3: Studio Octet, (a) "Londonderry Air" (Hamilton Harty); (b) "Mock Morris Dance" (Grainger).
 9.12: Baritone—Mr. W. H. Inkster, (a) "Tis the Hour of Farewell" (Lehmann); (b) "Dawn Skies" (Drummond).
 9.18: Grand organ—Arnold Grier, (a) "Agnus Dei" (Bizet); (b) "Impromptu No. 1 in A Major" (Coleridge-Taylor).
 9.24: Soprano—Miss Eileen Grennell, (a) "Thou Art Like a Lovely Flower" (Schumann); (b) "Through the Night My Songs Adjure Thee" (Schubert).
 9.30: Studio Octet—(a) "Entr'acte" ("Coppello Ballet"); (b) "Valse" ("Coppella Ballet") (Delibes).
 9.36: Tenor—Mr. L. C. Quane, (a) "Linden Lea" (Williams); (b) "Arise o Sun" (Day).
 9.42: Philadelphia Symphony Orchestra, "Casse Noisette" Suite (Tchaikowsky): 1. Arab Dance; 2. Chinese Dance; 3. Dance of the Flutes (H.M.V. D1215).
 9.50: Contralto—Miss Nellie Lowe, (a) "The Songs My Mother Sang" (Grimshaw); (b) "O Lovely Night" (Landon Ronald).
 9.56: Royal Opera Orchestra, "Hungarian Dance No. 5 in F Sharp Minor" (Brahms) (H.M.V. C1415).

4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, OCTOBER 24

SILENT DAY.

Friday, October 25

1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, OCTOBER 25.

- 3.0: Afternoon session—selected studio items.
 4.0: Literary selection by the Announcer.
 4.8: Studio items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by Nod and Aunt Jean.
 6.0: Dinner session—"His Master's Voice" Hour:
 Overture—Berlin State Opera Orchestra, "The Beautiful Galathea" (Suppe) (C1527).
 Pianoforte—Harold Bauer, "Etude in D Flat" (Liszt) (DB1282).
 6.12: Tacet.
 6.15: Venetian Instrumental Trio, "Love's Dream after the Ball" (Czibulka) (B561).
 Symphony Orchestra, "Salome" (Strauss) (D909).
 6.27: Tacet.
 6.30: Symphony Orchestra, "Love, the Magician" (De Falla) (D1453).
 Symphony Orchestra, "Spanish Dance" (De Falla) (D1453).
 Pianoforte—Harold Bauer, "In the Night" (Schumann).
 6.42: Tacet.
 6.45: Florentine Instrumental Quartet, "Melody of Love" (Engelmann) (B561).
 Organ—W. G. Alcock, "Reverie" (Lemare) (C1376).
 Peerless Orchestra, "Valse Caprice" (Rumenstein) (Zonophone A208).
 6.57: Tacet.
 7.0: News and market reports.
 8.0: Chimes.
 8.1: Relay of concert from Lewis Eady Hall.
 8.30: Studio concert:
 Vocal quartet—New Zealand Four, (a) "I Don't" (Parks); (b) "Safety First" (arrgd. Parks).
 8.36: Berlin State Opera Orchestra, "Così Fan Tutte" (Mozart) (H.M.V. D1244).
 8.40: Baritone—Mr. E. Mannall, "Tired Hands" (Sanderson).
 8.44: Studio Trio—"Nocturne in C Minor" (Chopin).
 8.52: One-act play—Auckland Comedy Players, "Dad" (Taylor).
 9.2: Weather report.
 9.4: Vocal duet—Messrs. Dormer and Mannall, "Fickle Hearted Mimi" ("La Bohème") (Puccini).
 9.8: Pianoforte—Mr. Eric Waters, "Humoresque" (Gardiner).
 9.12: Bass solos—Mr. Duncan Black, (a) "Lovely Nature" (Linnell); (b) "Tokens" (Linnell).
 9.18: Tenor—Mr. James Simpson, "Once Again" (Sullivan).
 9.21: Recital—Mr. J. F. Montague, "Agincourt" ("Henry V") (Shakespeare).
 9.25: Tenor—Mr. R. Dormer, "Onaway, Awake" (Cowen).
 9.29: Studio Trio, "Trio in D Minor—1st Movement" (Mendelssohn).
 9.37: Vocal duet—Messrs. Black and Simpson, "The Romany Lass" (Adams).
 9.41: One-act play—Auckland Comedy Players, "A Sure Winner".
 10.0: Vocal quartet—New Zealand Four, "When You and I Were Young" (arrgd. Parks).
 10.4: Chicago Symphony Orchestra, "Roses of the South" (Strauss) (H.M.V. D1452).
 10.8: Close down.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, OCTOBER 25.

- 3.0: Chimes of the G.P.O. clock.
 3.1: Selected gramophone items.
 4.30 and 4.50: Sports results to hand.
 5.0: Children's session, conducted by Big Brother Jack.
 6.0: Dinner session—"His Master's Voice" Hour:
 Overture—Berlin Opera House Orchestra, "The Beautiful Galathea" (Suppe, arrgd. Artok) (C1527).
 Violin—Marjorie Hayward, "Meditation" ("Thais") (Massenet) (B2938).
 National Symphony Orchestra, "Aida" (Verdi) (Zonophone A340).
 6.14: Tacet.
 6.15: National Military Band, "Lohengrin—Prelude" (Wagner) (Zonophone A358).
 Organ—Edward Henry, "Faust" Waltz (Gounod) (B2873).
 Piccadilly Orchestra, "Merry Widow" Selection (Lehar) (B2945).
 6.28: Tacet.
 6.30: National Symphony Orchestra, "Bohemian Girl" Selection (Balfe) (Zonophone A340).
 Marek Weber's Orchestra, "Pot Pourri—La Tosca" (Puccini) (C1413).
 6.42: Tacet.
 6.45: Royal Opera Orchestra, (a) "Carmen—Ballet Music" (Bizet); (b) "Carmen—Entr'acte, Act 4" (Bizet) (C1424).
 National Military Band—"Tannhauser—March" (Wagner) (Zonophone A358).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. A. Varney, honorary secretary Wellington Cricket Association—"Cricket."
 8.0: Chimes of the G.P.O. clock.
 8.1: Overture—2YA Orchestra, under the conductorship of Signor Truda, "Martha" (Flotow).
 8.9: Soprano—Mrs. W. Fraser Morrish, "Elsa's Dream" ("Lohengrin") (Wagner).
 8.13: Baritone—Mr. Ray Kemp, "A January Morning" ("Tom Jones") (German).
 8.17: 2YA Orchestra, "Cavalleria Rusticana" (Mascagni).
 8.27: Contralto—Mrs. Ray Kemp, "A Quaker Girl" ("Quaker Girl") (Monckton).
 8.31: Recital—Mr. Albert Davey, Character Study, "Sidney Carton" ("A Tale of Two Cities") (Dickens).
 8.38: Organ—Reginald Goss-Custard, (a) "Coronation March" ("The Prophet") (Rubinstein); (b) "Reve Angélique" (Rubinstein).
 8.44: Tenor—Mr. E. W. Robbins, "On With the Motley" ("I Pagliacci") (Leoncavallo).
 8.48: Vocal duet—Mr. and Mrs. Ray Kemp, "Half-past Two" ("The Arcadians") (Monckton).
 8.52: Selection—2YA Orchestra, "Tannhauser" (Wagner).
 9.0: Weather report.
 9.2: Soprano—Mrs. W. Fraser Morrish, "As When the Dove Laments Her Love" ("Acis and Galathea") (Handel).
 9.6: Baritone—Mr. Ray Kemp, "The One in the World" ("San Toy") (Jones).
 9.10: Musical comedy selection—2YA Orchestra, "Sally" (Kern).
 9.18: Recital—Mr. Albert Davey, "My Marriage" (MS).
 9.25: Vocal duet—Mr. and Mrs. Ray Kemp, "A Wilderness and Thou" ("Quaker Girl") (Monckton).
 9.29: 2YA Orchestra, (a) "Pas Des Amphores" (Chaminade); (b) "Serenade" (Drdla).
 9.39: Concerted—Miriam Licette, Clara Serena, Francis Russell, Harold Williams, and chorus, "Vocal Gems from Faust" (Gounod) (Columbia 02820).
 9.47: Tenor—Mr. E. W. Robbins, "The Flower Song" ("Carmen") (Bizet).
 9.51: 2YA Orchestra, "Natoma" (Herbert).
 10.1: Close down.

3YA, CHRISTCHURCH (930 KILOCYCLES)—FRIDAY, OCTOBER 25.

- 3.0: Afternoon session—selected gramophone items.
 4.25: Sports results to hand.
 5.0: Children's session, conducted by "Storyman."
 6.0: Dinner session—"Parlophone" Hour:
 Edith Lorand Orchestra, "Johann Strauss Fantasia" Part 1 (Strauss) (A4044).
 Organ—Edward D'Evry, "Meditation" (D'Evry) (E10550).
 Edith Lorand Orchestra—"Johann Strauss Fantasia" Part 2 (Strauss) (A4044).
 6.12: Tacet.
 6.15: Dr. Ormandy's Instrumental Trio, "Baccarolle" ("Tales of Hoffman") (Offenbach) (A2542).
 H.M. Irish Guards Band, "The Desert Song" Selection (Romberg) (A2433).
 Wuriltzer organ—Eddie Horton, "O Mi Paloma" (Merton) (A2557).
 Steel guitar, ukulele, and piano—Kailli, "A Song of India" (Kailli) (A2464).
 6.27: Tacet.
 6.30: Dajos Bela Orchestra, "Pique Dame" Overture (Tchaikowsky) (A4021).

- Piano and orchestra—Raie da Costa, "When Day is Done" (De Sylva) (A4041).
- 6.42: Tacet.
- 6.45: Waltz—Dajos Bela Orchestra, "Gipsy Love" (Lehar) (A4080).
- Selection—Raie da Costa Ensemble, "Funny Face" (Gershwin) (A4074).
- 6.55: Tacet.
- 7.0: News session.
- 7.30: Lecturette—Mr. F. L. Hutchinson (Christchurch Beautifying Association)—"City Beautification."
- 8.0: Chimes.
- 8.1: Overture—Edith Lorand Orchestra, "The Merry Widow" (Lehar) (Parlophone A4071).
- 8.9: Vocal quartet—Valencia Quartet, "The Dear Little Shamrock" (Jackson).
- Soprano—Mrs. Lucy O'Brien, "Down in the Forest" (Landon Ronald).
- 8.16: Studio Instrumental Trio, (a) "Rondo Alla Turca" (Hummel); (b) "Polish Dance" (Scharwenka).
- 8.24: Baritone—Mr. E. J. Johnson, "The Rebel" (Wallace).
- 8.28: Dance music—Bailey-Marston Dance Orchestra, (a) "Blossoms" (Dietrick); (b) "The One That I Love Loves Me" (Turk).
- 8.36: Soprano and contralto duet—Valetta Duo, "Sing, Sing Birds on the Wing" (Nutting).
- 8.40: Violin—Miss Irene Morris, "Canzonetta" (D'Ambrosio).
- 8.44: Contralto—Miss Mary Taylor, "Kashmiri Song" (Woodforde-Finden).
- 8.48: Studio Trio—(a) "Pierrette" (Chaminade); (b) "A La Passfield" (Williams); (c) "Valse" ("Faust") (Gounod).
- 8.50: Tenor—Mr. T. G. Rogers, "There is a Valley" (Bates).
- Vocal quartet—Valencia Quartet, "In This Hour of Softened Splendour" (Pinsuti).
- 9.1: Weather report.
- 9.3: Dance music—Bailey-Marston Dance Orchestra, (a) "One Alone" (Romberg); (b) "What'd'Ya Say?" (Henderson).
- 9.11: Soprano—Mrs. Lucy O'Brien, "Believe Me if all Those Endearing Young Charms" (Moore).
- Tenor and baritone duet—Toledo Duo, "Larboard Watch" (Williams).
- 9.18: Dance music—Bailey-Marston Dance Orchestra, (a) "Blue Hawaii" (Caesar); (b) "Just Like a Melody Out of the Sky" (Donaldson).
- 9.26: Contralto and tenor solos—Miss Mary Taylor and Mr. T. G. Rogers, (a) "The Garden of Your Heart" (Rorel); (b) "Silver Moon" (Adams).
- 9.35: Dance music—Bailey-Marston Dance Orchestra, (a) "Think of Me Thinking of You" (Winbrow); (b) "When Summer is Gone" (Wilhite).
- 9.41: Baritone—Mr. E. J. Johnson, "Mother Machree" (Ball).
- Vocal quartet—Valencia Quartet, "When the Heart is Young" (Buck).
- 9.49: Humour—Clapham and Dyer, "Golf" (Clapham and Dyer) (Parlophone A2524).
- 9.55: Dance music—Bailey-Marston Dance Orchestra, (a) "That's What Put the Sweet in Home, Sweet Home" (Newman); (b) "Nothing to do but Think of You" (Bernard).
- 10.0: Dance music by the Bailey-Marston Dance Orchestra: "Here Comes the Show Boat" (Kern); "Louise" (Robin).
- Baritone—George Sorlie, "Down on Bull Frog's Isle" (Whiting) (Parlophone A2624).
- Dance music by the Bailey-Marston Dance Orchestra: "Querida" (Simon); "I Kiss Your Hand, Madame" (Erwin).
- Baritone—George Sorlie, "Every Time My Sweetie Passes By" (Carlton) (Parlophone A2624).
- Dance music—Bailey-Marston Dance Orchestra, "Sally of My Dreams" (Kernell); "I'm Bringing a Red, Red Rose" (Donaldson).
- 10.33: Dance music by the Bailey-Marston Dance Orchestra until 11 p.m.
- 11.0: Close down.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, OCTOBER 25.

- 3.0: Town Hall chimes.
- 3.1: Selected gramophone items.
- 3.15: Lecturette by Miss Buccleuch of the D.S.A. Ltd.—"Fashions."
- 3.30: Studio items.
- 4.25: Sports results to hand.
- 5.0: Children's session, conducted by Aunt Sheila.
- 6.0: Dinner session—"Parlophone Hour":
- Overture—Grand Symphony Orchestra, "Zampa" (Herold) (4020A).
- Waltz—Dajos Bela Orchestra, "Morgenblatter" (Strauss) (A4038).
- 6.12: Tacet.
- 6.15: Orchestra of the Opera Comique, Paris, "Scenes Pittoresques" (Massenet) (A4057).
- Waltz—Edith Lorand Orchestra, "Vienna Waltz" (Drdla) (E10531).
- 6.27: Tacet.
- 6.30: Waltz—Dajos Bela Orchestra, "Marion Klange" (Strauss) (A4038).
- Dajos Bela Orchestra, "Ideale" (Tosti) (A4015).
- Waltz—Edith Lorand Orchestra, "Merry Vienna" (Zishrer) (E10531).
- 6.42: Tacet.
- 6.45: Waltz—Edith Lorand Orchestra, "Song of Autumn" (Waldteufel) (E10570).
- March—Queenie and David Kaili, "Hawaiian March" (Ellis) (A2372).
- Valse Intermezzo—Edith Lorand Orchestra, "The Flowers' Dream" (Translateur) (E10570).

- Selection—H.M. Irish Guards, "The Desert Song" (Romberg) (A2433).
- 6.57: Tacet.
- 7.0: News session.
- 8.0: Town Hall chimes. Studio concert by Miss Meda Paine's Ladies' Choir.
- 8.1: Overture—Columbia Symphony Orchestra, "Idilio" (Lack) (Columbia 01076).
- Ladies' Choir—"O Lovely May" (German).
- Vocal solo—Mrs. Eric Ewart, "Down in the Forest" (Landon Ronald).
- Vocal solo—Miss May Dryden, "Stars of the Night Sing Softly" (Edwards).
- Organ solo—Emil Velazco, "By the Waters of Minnetonka" (Lieurance) (Columbia 01332).
- Ladies' choir—"To a Wild Rose" (McDowell).
- Vocal solo with violin Obligato—Miss Ruby Wilkerson, "Farewell to Summer" (Johnson).
- Vocal duet—Misses Olga Wynne and B. Denford, "Nocturne" (Chaminade).
- Selection—Columbia Symphony Orchestra, "Spring Song" (Mendelssohn) (Columbia 01076).
- Vocal solo—Miss Phyllis Anderson, "The Lass with the Delicate Air" (Arne).
- Ladies' choir—"Lake Isles of Innesfree" (Phillips).
- 'Cello solo—W. H. Squire, "Song My Mother Taught Me" (Dvorak) (Columbia 03611).
- Soprano—Miss Rae Stubbs, "Waltz Song" ("Merrie England") (German).
- Contralto—Miss Bessie Denford, "Alleluia" (O'Connor Morris).
- Instrumental trio—Misses Allan, Garland and Paine, "Rondo—Symphony in C Minor" (Schubert).
- Ladies' Choir (with violins)—"The Snow" (Elgar) (part song).
- Part song—Ladies' Choir, "The Fairies are Tripping" (Taylor).
- Vocal solos—Miss Alison Tyrie, (a) "I Heard You Singing" (Contes); (b) "Summer Rain" (Willeby).
- Organ solo—Emil Velazco, "A Perfect Day" (Jacobs Bond) (Columbia 01332).
- Vocal solo—Miss Thelma Paine, "Night" (Mallinson).
- Ladies' choir—"Three Fishers" (Wolstenholme).
- Soprano solos—Miss Rae Stubbs, (a) "The Astra" (Rubinstein); (b) "My Lover is a Fisherman" (Strickland).
- 'Cello—W. H. Squire, "Spinning Wheel" (Dunkler) (Columbia 03611).
- Soprano—Miss Olga Wynne, "Waltz Song" ("Romeo and Juliet") (Gounod).
- Vocal solo—Mrs. Eric Ewart, "How Many a Lonely Caravan" (Woodforde-Finden).
- Instrumental trio—Misses Allan, Garland and Paine, "Allegretto, Larghetto, Rondo" (Mozart).
- Ladies' choir—"Seek Sweet Content" (adapted from Willeby's Madrigal).
- Vocal duet—Misses Paine and Dryden, "Calm, Silent Night" (Goetz).
- March—Band de la Garde Republicaine, "Marche Indienne" (Sellenick) (Columbia 01504).
- Contralto—Miss Bessie Denford, "Husheen" (Needham).
- Ladies' choir—(a) "How Beautiful is Night" (Hamblen); (b) "The Two Clocks" (Rodgers).
- 10.0: Close down.

Saturday, October 26

1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, OCTOBER 26.

- 3.0: Afternoon session—selected studio items.
- 4.0: Literary selection by the Announcer.
- 4.8: Studio items.
- 4.25: Sports results to hand.
- 5.0: Children's session, conducted by Cinderella.
- 6.0: Dinner session—"Columbia" Hour:
- B.B.C. Wireless Symphony Orchestra, "Concert Waltz in A" (Glazounov) (9114).
- Court Symphony Orchestra, "In Venice" (Sellars) (896).
- Steelguitar—Mayo Hunter, "Rose of the Lane" (West) (Regal G20152).
- 6.12: Tacet.
- 6.15: Court Symphony Orchestra, "Dance of the Hours" ("La Gioconda"), (Ponchielli) (02580).
- Eddie Thomas' Collegians, "Beautiful Ohio" (Earl) (02651).
- 6.27: Tacet.
- 6.30: Regimental Band of H.M. Grenadier Guards, "By the Blue Hawaiian Waters" (Ketelbey) (02671).
- Violin—Ignor Manuello, "Morgenblatter" Waltz (Strauss) (Regal G1038).
- Court Symphony Orchestra, "Idilio" (Lack) (01076).
- 6.43: Tacet.
- 6.45: Jacques Jacobs' Ensemble, "L'Estudiantina" (Waldteufel) (02566).
- Regimental Band of H.M. Grenadier Guards, "Jungle Drums" (Ketelbey) (02671).
- Hawaiian—Waikiki Stonewall Boys, "Paauau Waltz" (King) (01267).
- 6.57: Tacet.
- 7.0: News and market reports.

- 7.40: Talk—Mr. G. D. Rutter, "Roses."
 8.0: Chimes.
 8.1: Black Diamonds Band, "Exhibition March" (arrgd. Hume) (Zonophone 611).
 8.5: Bass—Foster Richardson, "The Tar's Farewell" (Adams) (Zonophone 5207).
 8.9: Vocal novelty—The Four Originals, "Oh, Millie" Series, No. 8.
 8.39: Organ—Terence Casey, "Broken Dreams" (Spitalny) (H.M.V. C1546).
 8.42: Black Diamonds Band, "The King's Bodyguard" March (Raymond) (Zonophone 611).
 8.45: Relay from Auckland Town Hall of Competitions Society Grand Demonstration Concert.
 10.0: (approx.) "Columbia" Dance Programme:
 Foxtrot—Leo Reisman's Orchestra, "The Sun is at my Window" (Mayer) (01450).
 Foxtrot—Guy Lombardo's Royal Canadians, "Sweethearts on Parade" (Newman) (01452).
 Foxtrot—Paul Ash's Orchestra, "Ten Little Miles from Town" (Kahn) (01315).
 Stoptrot—Piccadilly Players, "The Stop Trop" (Melvin) (01450).
 10.13: Tenor—Gerald Adams, "Half-way to Heaven" (Dubin) (Regal G20480).
 Foxtrot—Debroy Somers Band, "Wide Open Spaces" (Gay) (01315).
 Foxtrot—Piccadilly Players, "Why Do I Love You" (Hammerstein) (01408).
 Waltz—The Cavaliers, "I Loved You Then As I Love You Now" (Axt) (01401).
 Waltz—The Columbians, "Marion" (Rapee) (01433).
 10.29: Tenor—Gerald Adams, "I'm Away From the World When I'm Away From You" (Clare) (Regal G20480).
 One-step—Stellar Dance Band, "One and One are Two" (Carlton) (Regal G20441).
 One-step—Xylophone and bells, "Jollity" (Ganglberger) (Regal G7124).
 Foxtrot—Cliquet Club Eskimos, "Too Busy" (Collin) (01272).
 Foxtrot—Guy Lombardo's Royal Canadians, "That's How I Feel About You" (Davis) (01452).
 10.45: Hawaiian—South Sea Islanders, "Hula Hu" (Bories) (Regal G20464).
 Foxtrot—Debroy Somers Band, "Toy Town Admiral" (Godfrey) (01471).
 Foxtrot—Debroy Somers' Band, "The Toy Town Artillery" (Frederick) (01306).
 Foxtrot—Debroy Somers' Band, "All By Yourself in the Moonlight" (Wallis) (01432).
 Foxtrot—Piccadilly Players, "Who Did? You Did" (Kalmar) (01492).
 11.0: Close down.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, OCTOBER 26.

- 12.0 noon: Results of Wellington Racing Club's Spring Meeting, interspersed with selected studio items.
 5.0: Children's session, conducted by Uncle Toby and Aunt Gwen.
 6.0: Dinner session—"Columbia" Hour:
 Selection—Debroy Somers' Band, "Good News" (de Sylva) (02720).
 Violin and organ—Manuella, "Roses of Picardy" (Haydn Wood) (Regal G20119).
 Waltz—Eddie Thomas Collegians, "Beautiful Ohio" (Earl) (02651).
 6.14: Tacet.
 6.15: Selection—Plaza Theatre Orchestra, "Belle of New York" (Kerker) (Regal 30016).
 Xylophone—Rudy Starita, "Dancing Tambourine" (Polla) (Regal G20305).
 Organ—Milton Charles, (a) "From the Land of the Sky Blue Water" (Cadman); (b) "At Dawning" (Cadman) (01161).
 6.29: Tacet.
 6.30: Waltz—Jacque Jacob's Ensemble, "Wiener Blut" (Vienna Life) (Strauss) (02556).
 Violin and organ—Manuella, "Love's Garden of Roses" (Haydn Wood) (Regal G20119).
 Hawaiian—Norman Clark's South Sea Islanders, "Dreamy Hilo Bay" (Clark) (01162).
 Waltz—Jacque Jacob's Ensemble, "Sabre Las Olas" (Over the Waves) (Rosas) (02556).
 6.44: Tacet.
 6.45: Symphony Orchestra, "The Singer's Joy" (Strauss) (02665).
 Xylophone and marimba—Rudy Starita, "Hit the Deck" Medley (Youmans) (Regal G20305).
 Organ—Milton Charles, "Love's Old Sweet Song" (Molloy) (01161).
 Symphony Orchestra, "The Spirit of Fire" (Strauss) (02665).
 6.59: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. L. D. Haggitt, "Burbank's Fruit Experiments."
 8.0: Chimes of the G.P.O. Clock.
 8.1: Overture—2YA Salon Orchestra under the conductorship of Mr. M. T. Dixon, "Jolly Fellows" (Suppe).
 8.9: Vocal quartet—Melodie Four, "Little Alabama Coon" (Starr).
 8.13: Steel guitar duo—Messrs. Berthold and Bent, (a) "If You're in Love You'll Waltz" (McCarthy); (b) "Among My Souvenirs" (Nicholls).

- 8.20: Soubrette—Mrs. M. Lightbody, "The Happy Medium Boy" (Long-staffe).
 8.24: 2YA Salon Orchestra, "Pale Moon" (Logan-Black).
 Xylophone solo—Mr. L. W. Probert, "La Pluie" (Cole).
 8.32: Tenor—Mr. Frank Bryant, "I Love a Little Cottage" (O'Hara).
 8.36: Bagpipe solo—Mr. Dick Richards, "Scottish Marches" (Trdfl).
 8.41: Humour—Mr. Jack Wilkinson, "I Followed Her Here and I Followed Her There" (Weston and Barnes).
 8.47: Baritone—Mr. R. S. Allwright, "She is Far from the Land" (Lambert).
 8.51: 2YA Salon Orchestra, Request Number.
 8.59: Weather report.
 9.1: Vocal quartet—Melodie Four, Request Number.
 9.5: Steel Guitar Duo—Messrs. Berthold and Bent, (a) "Bye Bye Sweet Heart" (Yellen); (b) "Sometime" (Piorito).
 9.12: Soubrette—Mrs. M. Lightbody, "Janie" (Scott-Gatty).
 9.16: Bass—Mr. W. W. Marshall, "Galloping Dreary Dun" (Brahe).
 9.20: Bagpipe solo—Mr. Dick Richards, "Scottish Waltzes" (Trdfl).
 9.25: Tenor—Mr. Sam Duncan, "Dolorosa" (Montague Phillips).
 9.29: Musical comedy selection—2YA Salon Orchestra, "Southern Wedding" (Lotter).
 9.37: Humour—Mr. Jack Wilkinson, A burlesque musical monologue—"The Miser" (Connor).
 9.44: Novelty—Flanagan Brothers, "Over the Waves" (Regal G20453).
 9.47: Vocal Quartet—Melodie Four, "Carry Me Back to Old Virginia" (Bland).
 9.52: 2YA Salon Orchestra, Dance Novelties.
 10.0: "His Master's Voice" Dance Programme:
 Foxtrot—Nat Shilkret's Orchestra, "I'm Crazy Over You" (Sherman) (EA580).
 Foxtrot—Connecticut Yankees, "Every Moon's a Honeymoon" (Wimbrow) (EA581).
 Waltz—Gus Arnheim's Orchestra, "Sleepy Valley" (Sterling) (EA583).
 Waltz—Leo Reisman's Orchestra, "When You Come to the End of the Day" (Kahn) (EA581).
 10.12: Vocal duet—Dora Maughan and Walter Fehl, "Eggs, Toast and Coffee" (Murrill) (B3000).
 Foxtrot—Connecticut Yankees, "The One in the World" (Little) (EA582).
 Foxtrot—Leo Reisman's Orchestra, "Josephita" (Klages) (EA545).
 Waltz—Waring's Pennsylvanians, "I'll Always be in Love With You" (Stept) (EA559).
 10.24: Tenor—Paul Oliver, "Coquette" (Berlin) (Zonophone EE160).
 Foxtrot—Connecticut Yankees, "S'posin'" (Razaf) (EA582).
 Foxtrot—Gus Arnheim's Orchestra, "This is Heaven" (Yellen) (EA583).
 Foxtrot—Hamp's Kentucky Serenaders, "Mia Bella Rosa" (Koehler) (EA545).
 Waltz—Victor Arden and Phil Ohman's Orchestra, "Twelve O'Clock Waltz" (Rose) (EA557).
 Waltz—The Troubadours, "Pagan Love Song" (Freed) (EA558).
 10.45: Sporting summary.
 11.0: Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, OCTOBER 26.

- 3.0: Afternoon session—Selected gramophone items.
 4.25: Sports results to hand.
 4.30: Close down.
 5.0: Children's session, conducted by Aunt Pat and Peterkin.
 6.0: Dinner session:
 Brunswick Concert Orchestra, "Thousand and One Nights" (Strauss) (20088).
 Milan Symphony Orchestra, "Intermezzo—Cavalleria Rusticana" (Mascagni) (Columbia 02841).
 Plaza Theatre Orchestra, "Minuetto—Love Duet" (Gipsy Suite) (German) (Columbia 02583).
 6.12: Tacet.
 6.15: Foxtrot—Hotel Roosevelt Orchestra, "I Kiss Your Hand, Madame" (Lewis) (Brunswick 4315).
 Hawaiian Trio, "O Sole Mio" (de Capua) (Columbia 3606).
 Wurlitzer organ—Lew White, "Deep Night" (Henderson) (Brunswick 4361).
 Solo and chorus—Virginia Perry, "My Hero" ("The Chocolate Soldier") (Strauss) (Columbia 01173).
 6.27: Tacet.
 6.30: Columbia Symphony Orchestra, "Al Fresco" (Herbert) (Columbia 01092).
 J. H. Squire Celeste Octet, "La Serenata" (Braga) (Columbia 9116).
 Columbia Symphony Orchestra, "Bandinage" (Herbert) (01092).
 Cherniavsky String Trio, "By the Waters of Minnetonka" (Lieurance) (0845).
 6.42: Tacet.
 6.45: Wurlitzer organ—Terence Casey, "Keys of Heaven" (with variations) (Casey) (02842).
 Ambassadors Band, "The Five O'clock Girl" (Kalmar) (Columbia 02886).
 6.55: Tacet.
 7.0: News session.
 7.30: Sports results to hand.
 8.0: Chimes.

- 8.1 : Madrid Symphony Orchestra, (a) "Dance of the Neighbours"; (b) "The Miller's Dance" ("The Three-Cornered Hat") (de Falla) (Columbia 02848).
- 8.9 : Mezzo-soprano—Mrs. Maud Wood, (a) "Longing" (Barry); (b) "The House of Dreams Come True" (Pincott).
- 8.13 : Recital—Mr. J. P. Darragh, "The Huntsman" (A Coster's experiences in the hunting field) (MS.).
- 8.18 : Tenor—Mr. Arthur T. Couch, (a) "Mountain Lovers" (Squire); (b) "Home, Little Maori Home" (Hill).
- 8.24 : Violin and accordion—Messrs. N. Collins and George Bennett, (a) "Casova Waltz" (Bennett); (b) "Over the Waves" Waltz (Juventine, arrgd. Bennett).
- 8.34 : Contralto—Miss Vera Martin, (a) "Fairy Tales of Ireland" (Coates); (b) "Barbara Allen" (Old English).
- 8.39 : Plaza Theatre Orchestra, "Tarantalla—The Revel" ("Gipsy Suite") (German) (Columbia 02538).
- 8.43 : Humorous sketch—Messrs. Alan Brown and Cyril Collins, "Trying a Magistrate" (Toole).
- 8.53 : Xylorimba Orchestra, "My Sweetheart" Waltz (Veo) (Regal G20328).
- 8.56 : Popular song at piano with ukulele—Melody Maids, (a) "Japanese Moonlight" (Long); (b) "Strolling Home Along" (Dunn).
- 9.2 : Weather report.
- 9.4 : Mandolin band—"Stephanie Gavotte" (Czibulka) (Columbia 01210).
- 9.7 : Mezzo-soprano—Mrs. Maud Wood, (a) "If I Might Come to You" (Squire); (b) "Come, For It Is June" (Foster).
- 9.13 : Recital—Mr. J. P. Darragh, "Isaacsstein's Visit to New York" (MS.).
- 9.18 : Tenor—Mr. Arthur T. Couch, "I Hear a Thrush at Eve" (Cadman).
- 9.22 : Violin and accordion—Messrs. N. Collins and George Bennett, (a) "March of the Men of Harlech" (Welsh traditional); (b) "The Last Rose of Summer" (Flotow).
- 9.32 : Contralto—Miss Vera Martin, (a) "The Storm" (Hullah); (b) "Good Morning" (Cleaver).
- 9.37 : Marina Serenaders, (a) "Jack and Jill" (Sanella); (b) "Paree" (Padilla) (Columbia 01186 and 03612).
- 9.43 : Humorous sketch—Messrs. Alan Brown and Cyril Collins, "The Drafting Committee" (Herbert). (Characters: Mrs. Henn, Mr. Alan Brown; Mrs. Hash, Mr. Cyril Collins.)
- 9.53 : Whistling novelty—Sibyl Sanderson, "Some Other Bird" (Fisher) (Columbia 3901).
- 9.56 : Popular songs at piano with ukulele—Melody Maids, (a) "Love dreams" (Mendoza); (b) "Swanee Shore" (Hess).
- 10.2 : Concerted—Miniature Musical Comedy, "The Balcony Girl" (Simpson) (Columbia 02878).
- Dance programme—"Brunswick":
- Foxtrot—Al Goodman's Orchestra, "I'm Still Caring" (Vallee) (4362).
- Foxtrot—Colonial Club Orchestra, "Love Me or Leave Me" (Kahn) (4342).
- Foxtrot—Al Goodman's Orchestra, "I'm Just a Vagabond Lover" (Vallee) (4362).
- Foxtrot—Colonial Club Orchestra, "My Sin" (de Sylva) (4342).
- Foxtrot—Copley Plaza Orchestra, "Dream Mother" (Lewis) (4323).
- Foxtrot—Davis's Swanee Syncopators, "Honest" (de Veras) (4329).
- Waltz—Thematic Orchestra, "Giovanna" (Korintz) (4297).
- Waltz—Copley Plaza Orchestra, "Pagan Love Song" (Freed) (4321).
- Waltz—Thematics Orchestra, "Lady Divine" (Kountz) (4297).
- Foxtrot—Swanee Syncopators, "The One that I Love Loves Me" (Turk) (4329).
- Foxtrot—The Captivators—"Building a Nest for Mary" (Rose) (4321).
- Foxtrot—Arnold Johnson's Orchestra, "Breakaway" (Gottler) (4348).
- Foxtrot—Haring's Orchestra, "Dee Night" (Vallee) (4246).
- Waltz—Hotel Roosevelt Orchestra, "Coquette" (Berlin) (4284).
- Waltz—Rubinoff's Orchestra, "Blue Hawaii" (Baer) (4344).
- Foxtrot—Bob Haring's Orchestra, "Wedding Bells" (Kahal) (4246).
- Foxtrot—Arnold Johnson's Orchestra, "Big City Blues" (Gottler) (4348).
- Foxtrot—Kansas City Stompers, "Good Feelin' Blues" (de Cimbes) (7091).
- Foxtrot—Rhythm Aces, "Ace of Rhythm" (Smith) (7071).
- Foxtrot—Six Jumping Jacks, "Oh, Baby, What a Night" (Brown) (4351).
- 11.0 : Close down.
- 6.30 : Albert Sandler's Orchestra, "Chalita" (Schertzing) (01467).
- Marimbas—"Paree" (Padilla) (Regal G20344).
- Pianoforte—Gil Dech, "Sometimes I'm Happy" (Youmans) (01205).
- Royal Serbian Tambouritza Orchestra, "Serbian Melody" (01490).
- 6.42 : Tacet.
- 6.45 : Intermezzo—Ketelbey's Orchestra, "Bells Across the Meadows" (Ketelbey) (02695).
- Marimbas—Rio Marimba Orchestra, "Dolores" Waltz (Waldteufel) (Regal G20344).
- Cinema organ—G. T. Pattman, "Worryin'" Waltz (Fairman) (01344).
- March—National Military Band, "Stars and Stripes" (Souza) (01153).
- 6.57 : Tacet.
- 7.0 : News session.
- 8.0 : Town Hall chimes.
- 8.1 : Relay of 3YA, Christchurch—vaudeville programme.
- 10.0 : "His Master's Voice" Dance Programme:
- Foxtrot—Bert Pollock's Orchestra, "Louise" (Whiting) (EA543).
- Foxtrot—Horace Heidt's Orchestra, "Wedding of the Painted Doll" (Freed Brown) (EA539).
- Foxtrot—Kassels in the Air, "He, She, and Me" (Lombardo) (EA532).
- Foxtrot—Nat Shilkret's Orchestra, "You Were Meant For Me" (Brown) (EA525).
- 10.12 : Tenor—John Coleman, "Passing By" (Purcell) (Zonophone 5188).
- Foxtrot—Nat Shilkret's Orchestra, "One for All, All For One" (Alter) (EA528).
- Foxtrot—Waring's Pennsylvanians, "My Mother's Eyes" (Baer) (EA530).
- Foxtrot—Nat Shilkret's Orchestra, "I'm Thirsty for Kisses" (Coots) (EA528).
- Waltz—Nat Shilkret's Orchestra, "Lady Divine" (Korintz) (EA531).
- Waltz—Connecticut Yankees, "Sweet Suzanne" (Gilbert) (EA523).
- 10.30 : Scottish song—Sir Harry Lauder, "I'm Looking for a Bonnie Lass to Love Me" (Lauder) (Zonophone G084).
- Foxtrot—Nat Shilkret's Orchestra, "Broadway Melody" (Brown) (EA525).
- Foxtrot—Park Central Hotel Orchestra, "Wait Till You See Ma Cherie" (Whiting) (EA543).
- Foxtrot—Park Central Hotel Orchestra, "Sally of My Dreams" (Kernell) (EA530).
- Waltz—Connecticut Yankees, "Coquette" (Berlin) (EA532).
- 10.46 : Vocal solo—Charles King, "You Were Meant for Me" (Brown) (EA552).
- Foxtrot—Jack Hylton's Orchestra, "I Lift Up My Finger" (Sarony) (EA540).
- One-step—Jack Hylton's Orchestra, "Shinaniki Da" (Carlton) (EA541).
- Waltz—The Troubadours, "Carolina Moon" (Burke) (EA494).
- Waltz—The Troubadours, "Another Kiss" (Schertzing) (EA489).
- 11.0 : Close down.

4YA, DUNEDIN (650 KILOCYCLES).—SATURDAY, OCTOBER 26.

- 3.0 : Town Hall chimes.
- 3.1 : Selected gramophone items.
- 4.25 : Sports results to hand.
- 5.0 : Children's session, conducted by Uncle George.
- 6.0 : Dinner session—"Columbia" Hour:
- March—National Military Band, "National Emblem" (Bagley) (01153).
- 'Cello—W. H. Squire, "The Broken Melody" (Van Biene) (04180).
- Albert Sandler's Orchestra, "I Kiss Your Hand, Madame" (Erwin) (04167).
- Cinema organ—G. T. Pattman, "Cheerie" (Waltz) (Valentine) (01344).
- 6.12 : Tacet.
- 6.15 : Court Symphony Orchestra, "The Gondollers" Selection (Sullivan) (979).
- Paul Whiteman's Orchestra, "Gypsy" (Gibbert) (07505).
- 6.27 : Tacet.



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Sunday, October 27

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, OCTOBER 27.

- 3.0 : Afternoon session—Selected studio items.
 4.0 : Literary selection by the Announcer.
 4.8 : Studio items.
 6.0 : Children's service, conducted by Uncle Leo.
 6.55 : Relay of service from Auckland Baptist Tabernacle—Preacher: Rev. Joseph Kemp. Organist and choirmaster: Mr. A. E. Wilson.
 8.30 : (approx.) Relay from Whangarei of concert by Auckland Salvation Army Congress Hall Band, under the conductorship of Bandmaster Paice.
 9.45 : (approx.) Close down.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, OCTOBER 27.

- 3.0 : Afternoon session—selected studio items.
 4.30 : Close down.
 6.0 : Children's song service, conducted by Uncle George.
 7.0 : Relay from St. Gerard's Redemptorist Church, of special festival of "Christ the King":
 Organ solo—"Impressions du Soir" (Stiehle).
 Rosary with choral responses.
 Antiphon—"Salve Regina" (Witska).
 Sermon—Rev. Father T. Robinson, C.S.S.R.
 Hymn—"Praised be Jesus Christ Our King" (Rev. Father Brennan, C.S.S.R.).
 Motet—"Magnus Dominus" (Bruges).
 Motets—(a) "O Salutaris Hostia" (Gerum); (b) "Tantum Ergo" (L'Abbe Lambillotte).
 Recital of Divine Praises.
 Motets—(a) "Adoremus in Aeternum" (Oakes); (b) "Te Deum Laudamus" (L'Abbe Lambillotte).
 Organ solo—"Grand Chorus" (Spence).
 (Choirmaster: Mr. Frank J. Oakes. Organist: Mr. H. I. Mount.)
 8.15 : (approx.) Studio concert by the Port Nicholson Silver Band, under the conductorship of Mr. J. J. Drew, and assisting artists.
 Meditation—Band, "Requiem" (arrgd. Chas. Rose).
 Soprano—Miss Eileen Higgins, "Allah" (Willeby).
 Baritone—Mr. John Prouse, "Now Heaven in Fullest Glory Shone" ("The Creation") (Haydn).
 Trombone solo with band accompaniment—Bandsman J. W. Glennie, "Inspirez Moi" (Gounod).
 Valse—Band, "Bacchanale" (Rimmer).
 Contralto—Miss Evelyn Robinson, "Thanks Be to God" (Dickson).
 Virtuoso String Quartet, "Emperor Quartet—Theme and Variations" (Haydn) (H.M.V. C1470).
 Tenor—Mr. Harry Phipps, (a) "Malvern Hills in Spring" (Coningsby Clarke); (b) "My Girl and I" (Coningsby Clarke).
 Selection—Band, "Faust" (arrgd. Douglas).
 Weather report.
 Soprano—Miss Eileen Higgins, (a) "A Blackbird's Song"; (b) "Rose in the Bud" (Forster).
 Baritone—Mr. John Prouse, (a) "Morning Hymn" (Henschel); (b) "Rock of Ages" (Barnett).
 Cornet duet with band accompaniment—Bandsmen W. G. Stevenson and W. Matson, "Miserere Scene" ("Il Trovatore" (Verdi).
 Contralto—Miss Evelyn Robinson, (a) "A Perfect Day" (Jacobs Bond); (b) "There's a Big Lot of Sunshine Coming Soon" (Hay).
 Virtuoso String Quartet, "Londonderry Air" (Bridge) (C1470).
 Tenor—Mr. Harry Phipps, "Jean" (Meade).
 Intermezzo—Band, "Cosette" (Frank Crowther).
 March—Band, "Honour the Brave" (Rimmer).
 Close down.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, OCTOBER 27.

- 3.0 : Afternoon session—Selected gramophone items.
 4.30 : Close down.
 5.30 : Children's song service (children of the Methodist Sunday Schools).
 6.15 : Hymn chimes from studio.
 6.30 : Studio programme:
 Grand organ—Edouard Commette, "Fantasie in G Minor" (Bach) (Columbia 02746).
 6.38 : Orchestral—Royal Philharmonic Orchestra, "Two Movements in Symphonic Form" (Scherzo) (A completion of Schubert's "Unfinished Symphony") (Merreck) (Columbia 02872).
 6.46 : Pianoforte—Ignaz Friedman, "Romance in E Flat" (Rubinstein) (Columbia 03630).

- 6.50 : Ketelbey's Concert Orchestra—"Sanctuary of the Heart" (Ketelbey) (Columbia 02690).
 7.0 : Relay of service from East Belt Methodist Church—Preacher: Rev. W. Greenslade. Musical Director: Mr. J. Chaplin. Organist: Mr. A. M. Owen.
 8.15 (approx.): Rebroadcast of 2YA Wellington studio concert by the Port Nicholson Silver Band under the conductorship of Mr. J. J. Drew, and assisting artists).
 Close down.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, OCTOBER 27.

- 3.0 : Town Hall chimes.
 3.1 : Selected gramophone items.
 5.30 : Children's song service, conducted by Big Brother Bill.
 6.30 : Relay of service from Trinity Methodist Church. Preacher: Rev. H. E. Bellhouse.
 7.55 : Weather report.
 8.5 : Studio concert:
 Suite—New Queen's Hall Light Orchestra, "Peer Gynt Suite" (Grieg): 1. Morning; 2. Death of Ase; 3. Dance of the Imps; 4. Salveig's Song (Columbia L1516/7).
 8.21 : Chorus—Chauve Souris Company, "Russian Barcarolle" (Varlamoff) (Columbia 02525).
 8.25 : Violin—Toscha Seidel, "Hungarian Dance, No. 1" (Brahms) (Columbia 09504).
 8.29 : Negro spirituals—Layton and Johnstone, (a) "Were You There?"; (b) "Every Time I Feel the Spirit" (Columbia 01248).
 8.35 : Ketelbey's Concert Orchestra, "In a Monastery Garden" (Ketelbey) (Columbia 02688).
 8.43 : Soprano—Maria Kurenko, "Vilanelle" (Dell'Acqua) (Columbia 04176).
 8.47 : Instrumental—Musical Art Quartet, (a) "To a Wild Rose" (Macdowell); (b) "Mighty Lak a Rose" (Nevin) (Columbia 01506).
 8.53 : Selections—Minster Singers, "Messiah" (Handel) (Regal G30017).
 9.1 : Violin—Toscha Seidel, "Slavonic Dance, No. 2 in E Minor" (Dvorak) (Columbia 09504).
 9.5 : Chorus—Chauve Souris Company, "Round the Hay Wain" (trdtl.) (Columbia 02525).
 9.13 : Selection—J. H. Squire Celeste Octet, "Memories of Mendelssohn" (arrgd. Sear) (Columbia 02838).
 9.30 : Close down.

Our Mail Bag

Radio Announcers.

KAIORA. I quite believe, comes from Waitomo, as his letter shows he has not been long out of the caves. "Kaiora" should know that satisfaction is stagnation, and every Parliament of the world is framing new laws constantly because it is not satisfied with the old ones. I am too modest and antiquated to take any credit to myself for anything, but I again say Mr. Announcer 2YA has improved in the past three or four months. The "Radio Record," like the Broadcasting Company, welcomes criticism, and I shall continue to criticise when I feel that way, and I trust other listeners will do likewise.—I am, sir, Lux Cum Amore (Ohakune).

From the North.

A FEW comments from the Winterless North. First as to reception. Auckland is usually poor, but 2YA, 3YA, 2YB and most of the Australians are well nigh perfect. As regards to programmes, 2YA mostly tops the poll. The dinner-time session is O.K., but cut out the facet. The programmes on the whole show a wonderful improvement. Congratulations R.B.C. and your announcers. Go—ood-night.—Non-Electric (Whangarei).

Stir Things Up.

I PROTEST against the manner in which 2YA are broadcasting their programmes: good programmes absolutely spoilt in the broadcasting. I am well aware that I shall be told everything about atmospheres, Heavyside layers, etc. To get down to the practical side, let us take Sunday, October 6. Afternoon session, very good; even-

ing church, not so bad; His Majesty's Theatre, decidedly poor; and so on, through a frightfully contorted, choked, hissing, fading programme. Now, sir, you can write pages upon interferences and other things antagonistic to wireless waves, but the fact still remains that the fault is undoubtedly with 2YA Station.

Immediately after this station had closed down upon the above date, we tuned into Australian stations and obtained good reception. My machine is not at fault; an all-electric six-valve with dynamic speaker, 100ft. aerial and lead-in, six ground pipes, poles 40ft., every joint sweat soldered, matched valves.

May I suggest you try another mechanician, pay rather more attention to your microphone and its setting, or stir up the electric light department and obtain a full supply of juice. There must be a fault at 2YA.—An Enthusiast (Stratford).

Blood-curdling Plays.

WHAT a blood-curdling lot of plays we have had from 2YA recently. "Danger" (put your light out and get a thrill—nervous people advised to switch off); "House of Disappearance" (detectives, murders, mysteries, suicides, even a baby-farmer); "Danger" again; "Galapagos" (very interesting, though gruesome—illustrates the merits of blood as a beverage); "The Man Who Changed His Name" (mysteries, murders, poisons, death-traps, matrimonial intrigue, and a maniac). Thrillers, in moderation, are quite all right, but we don't want to be morbid. 1YA presents some good plays ("Bird in Hand" was excellent), but reception from Auckland is frequently bad, and we have to depend on 2YA for practically all our entertainment.—Dudley Jones (Pirinoa).

YOU CAN'T BUY A BETTER VALVE THAN

Mullard
 THE MASTER VALVE

Wellington Society**Helpful Hints****Laboratory Jottings****Monthly Meeting**

THE Amateur Radio Society of Wellington held its monthly meeting in the Cambridge Terrace Congregational Schoolroom on the evening of October 8. About forty were present, and Mr. Byron Brown (president) occupied the chair.

A letter was received from the Rev. Dr. Gibb thanking the society for the message of appreciation of his recent broadcast talk on the League of Nations.

The Radio Broadcasting Company wrote acknowledging appreciation of the society's motion commending the company's broadcasting of the Wellington Competitions and the Schneider Cup contest.

A motion was carried expressing appreciation of the broadcast from 2YA, Wellington, of the Edgar Wallace play last Monday evening, as bearing evidence of the company's desire to introduce variety into the programmes. The entracte music by Mr. Truda's orchestra was also commended.

Mr. P. B. Billing gave an interesting lecture on A.C. amplifiers, with black-board diagrams. At the conclusion he gave a demonstration with an A.C. amplifier and electric gramophone with an electro-dynamic loudspeaker which he had constructed according to his own design. The natural tone of the gramophone items evoked hearty applause. Mr. Billing was accorded an enthusiastic vote of thanks.

The secretary (Mr. Laws) announced that members of the Association of Radio Transmitters had consented to give a lecture on short-wave reception at the next meeting of the society, fixed for November 12.

A Tool Protector.

WIRELESS experimenters are often at a loss to find a convenient method of preventing steel tools, such as drills, from rusting. An excellent plan is to bury them in a handful of ordinary tea contained in a suitable tin. Dry tea is one of the most hygroscopic of substances, absorbing all the moisture surrounding it, and if used for some time should be dried out periodically.

Spring-cleaning Loudspeakers.

LACK of clear reproduction and falling off in reception is rarely attributed to the loudspeaker, once it has given good results. If a horn type speaker is used, "sogginess" in reproduction may, however, be caused by the accumulation of dust and fluff on the diaphragm. Electrically, the instrument is probably sound, but domestically it needs spring-cleaning, especially if it has been in use for some time. The diaphragm is thus hampered by the small wad of material formed, thus producing a "cotton-wool" effect.

A Useful Accessory.

A POUND of plasticine is a very useful investment for any wireless enthusiast. A few examples of the uses to which it may be put are as follow:—With aerial coupling, it is sometimes desired to support a coil at a particular angle, and at a particular height near another. A small piece of plasticine can be shaped to give the necessary support. Another small piece will temporarily secure a couple of wires in the desired positions when they show a tendency to become tangled, or to short-circuit with others. In short-wave work, when valve-holders are dispensed with to give increased efficiency, a valve can be securely supported upside down by pressing its bulb into a piece of plasticine.

Tuning Trouble.

A MINOR outbreak of tuning trouble and of the local station shifting its setting upon the tuning dials of a receiver, usually occurs every summer. The trouble usually manifests itself as a slight falling-off of signal strength and an unaccountable variation in the setting of the tuning condenser. Generally the cause of this fault is poor earthing contact, due to the seasonal dryness of the soil. Any one who has to do this "dial-dodging" should try the effect of a bucket or two of water round the earth lead.

Odd Tips.

WHITE spots upon accumulator plates are a sign that sulphation is setting in.

IF you use an earth connection to a water-pipe make sure that the pipe is not painted or dirty, as such connections depend for their efficiency upon being affixed to a thoroughly clean surface.

WHEN loudspeakers are arranged in series with one another, it is very easy to short one of them by means of an ordinary on-off filament switch.

A GREAT many failures to get good reproduction arise from carelessness with the grid-bias battery or its leads.

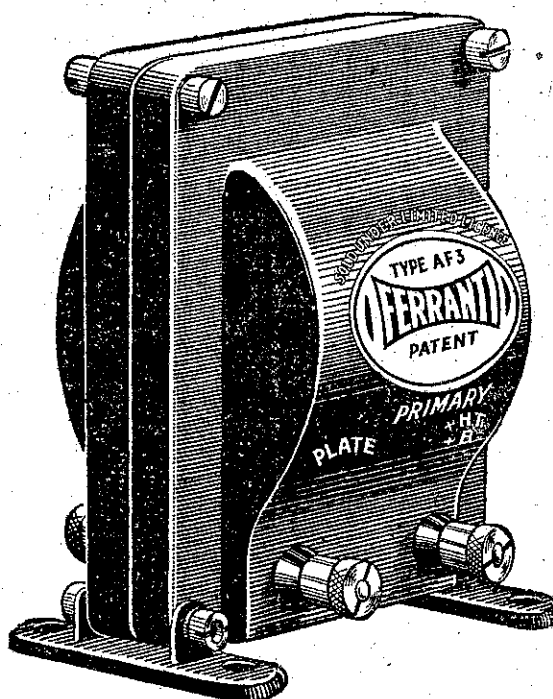
"Ferranti Trickle Charger"

MESSRS A. D. RILEY have sent to us for test one of their well-known trickle chargers. This is a very neat arrangement, its dimensions being approximately 8 by 3 by 4, the terminals being arranged along the longer side. Tappings are being provided for 2, 4, and 6 volts. The measured output of this charger is .42 amps, and it will operate for approximately 100 hours on a unit of electricity, this latter in most instances costing only 2d.

Used with an electrolytic condenser the charger could very successfully operate a moving coil loudspeaker, the consumption of which is approximately half amp. It will charge for very long periods without the slightest heating. Rectification is carried out by the Westinghouse metal rectifying unit.

THE first United States radio beacon has just passed its final tests. It has a radius of 400 miles and enables airmen to keep their course during fog.

DO not expect an audio transformer secondary to make a good audio choke for powerful output work, as it is fundamentally unsuited for such a purpose.

**FERRANTI**

Transformers will give results superior to any other coupling device available and have been designed for the constructor who requires quality results.

*Fit FERRANTI for
Finer Reception.*

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WELLINGTON and AUCKLAND.

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Are You Having Trouble?

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If so, do you know where to look for the trouble?

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N.Z. RADIO RECORD

P.O. Box 1032. Wellington.

The "Home-made" Three

Refinements for Smoother Operation

By "CATHODE"



THE improvement most urgently called for is the fitting of a proper panel and the inclusion of a filament switch providing greater convenience than the practice of connecting or disconnecting one of the battery clips. The measurements of the panel are: Length 1 1/2 inches, width 7 inches. The material used is of no particular importance, since the only component which is not at earth potential will be the reaction condenser when this is finally incorporated. A very useful and serviceable panel which, although being very much less expensive than the conventional ebonite, is nevertheless almost as efficient, is one of three-ply coated with duco finish. This, when dry, is rubbed with fine glasspaper, reduced and polished with any suitable polish. The result is a handsome efficient panel. Where possible, the duco should be sprayed on.

The baseboard being of a fair thickness, panel brackets should not be necessary. It is assumed that the variable condenser used will be of the single hole fixing variety, and where condensers having several mounting screws are used, the drilling template supplied with the condenser must be resorted to, the shaft of the condenser occupying the position shown in the diagram for the single hole mounting. Only one tuning condenser (that already in use) and the filament switch will be mounted on the panel at this stage, but it is wise to do all the drilling before the panel is screwed to the baseboard to avoid the difficulty of doing it later.

The tuning condenser may be removed from its temporary mounting and mounted on the panel proper. The filament switch should also be mounted on the panel about 3 1/2 inches from the end. In making a choice of a filament

switch avoid those in which a small lever is rotated through an angle of 90 degrees to switch on or off; switches of this type are quite satisfactory in most circumstances but, mounted below two projecting knobs, as will be the case here, they are distinctly inconvenient—a tumbler or toggle switch, or a

stead take it direct from the detector valve-holder to the gridleak; it will be advisable to leave the wire a little longer than is absolutely necessary, in order to avoid having it too short to make the necessary connection when the temporary gridleak is replaced by a commercial product.

IN our issue dated September 6 "Cathode" described a three-valve resistance-coupled set that could be assembled for a very modest sum. The plan adopted has been to describe a number of improvements in each article, but to arrange matters so that only one such improvement need be carried out at any one time. Readers will have recognised that the aim of the "Home-made Three" is to cater for those of us whose pocket books are unburdened with undue adipose deposit and, if it were made necessary to carry out a number of alterations at once, financial embarrassment might be the result.

switch of the pull-out type, will be more suitable.

The connections to the tuning condenser will, of course, be unchanged. It is quite possible, if the condenser has previously been mounted right down on the baseboard, that one or both of the wires connected to it will be too short to reach it in its new position.

Filament Switch.

THE inclusion of the filament switch will necessitate certain changes in the wiring. As things are, a wire runs from the positive filament terminal of the detector valve-holder to the "A" terminal on the terminal strip and thence to the low potential end of the detector gridleak. Disconnect this wire from the "A" terminal and in-

Transformer Coupling.

HAVING arrived at this stage, the receiver may be put into commission again until its constructor feels disposed to indulge in further expenditure to bring it nearer its final form. It is suggested that, as the next step, the resistance-capacity coupling between the first and second audio valves be replaced by a transformer, thus substantially increasing the volume. Before describing this change, a word of explanation is desirable.

The lay-out has been so arranged that the constructor is offered a choice between a single output valve, equipped with a choke-capacity output filter, and a pair of output valves arranged in push-pull. The merits of push-pull amplification have been discussed before in these columns; for the present it will be sufficient to say that the volume obtainable from the two valves will be substantially greater; on the other hand, the drain on the "B" battery will be several milliamps greater, thus shortening its life, and it will be necessary to purchase both input and output push-pull transformers at once instead of, as can be done in the instance of the single output valve, purchasing and installing the intervalve transformer first, leaving the output filter to be added when convenient.

Both arrangements are illustrated, the push-pull system in Fig. 2, and the

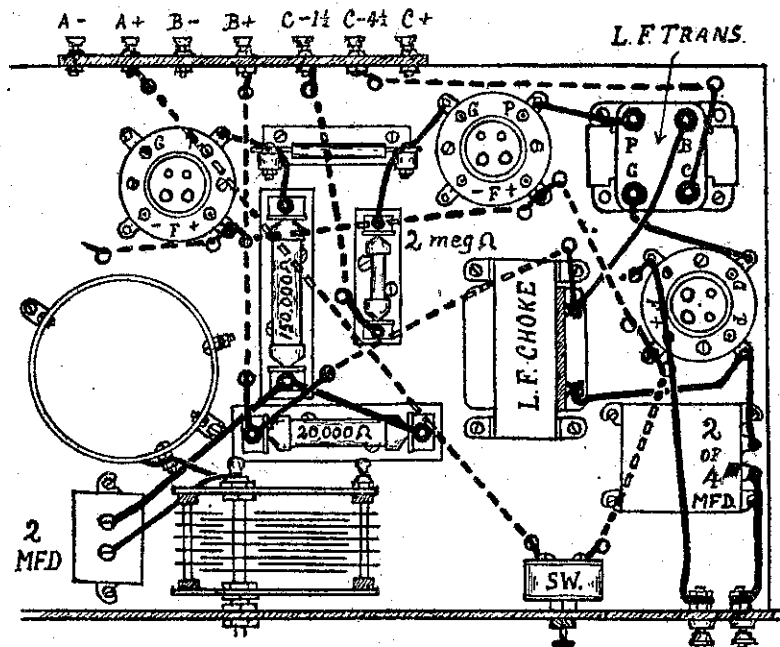


FIG. 1
Practical wiring diagram of altered portion of Receiver, with exception of negative filament circuit.

holder (where there is, of course, one wire already connected). This completes the wiring of the filament switch.

To put the receiver in working order again all that is necessary is to connect the wires left at a loose end when the little terminal strip carrying the loudspeaker terminals was removed, to the same terminals, now mounted on the panel in the position indicated. If the wires are too short, they must be replaced by longer ones.

single valve arrangement in the wiring diagram showing the result of making all the improvements suggested in this article. The necessary alterations in wiring are rendered so clear by the illustrations—particularly if these are compared with the original wiring diagram in the issue of September 6—that a verbal description seems unnecessary.

The coupling condenser left over when the resistance capacity coupling is replaced by a transformer may be

If you require,
RELIABLE
RESISTANCE
We recommend the **ELECTRAD**

Type B, 25 watt., 2 inch long in—
1,000, 1,500, 2,000, 6,000, 7,500,
8,000, 10,000, 12,000, 15,000, 20,000,
25,000, 30,000, 40,000 and 50,000 ohms.

Type V, Centre Tapped in—
10, 20, 30, 50, 80, 100, 150 and 200 ohms.

Royalty Variable Resistances—
0-100,000; 0-200,000; 0-500,000 ohms.
Also 0-500,000 ohm. Potentiometers.

Truvolt Divider—A wire wound resistance bank with five calibrated variable resistances.

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"WHERE THE QUALITY GOODS ARE SOLD"

mounted alongside and connected in parallel with the existing coupling condenser for the first stage, its effect being to accentuate the bass notes slightly. Where the mounting bases illustrated are used, the two condensers may be mounted one on each side; it will perhaps be necessary to replace the existing fixing bolts by slightly longer ones.

Output Filter.

IN regard to the 2mfd. condenser in series with the speaker in the output filter, a word of caution is desirable. It will be observed that this

replacing the home-made resistance of 150,000 ohms by a commercial wire-wound resistance having the same value, or perhaps a little lower, say, 100,000 ohms. Or, of course, if the constructor prefers, the change in the plate resistance may be made first, leaving the filter circuit to be incorporated at some future time.

In referring to the wiring diagram, the constructor must clearly understand that only the portions in which changes have been made are depicted. This has been done not only in order to avoid unnecessary work, but also because the changes are rendered clearer thereby. The new diagram should be studied in conjunction with the original wiring diagram published in the issue of September 6, when the precise nature and extent of the changes will be immediately apparent. No negative filament circuits are shown, since the only changes in the filament circuits are those necessary for the incorporation of the switch and these affect only the positive circuit and have been verbally described in detail.

Other Refinements.

IT is not anticipated that even the slightest trouble will be encountered in making any of these changes, particularly if, as has been suggested, they are made one at a time. When the second resistance-capacity coupling has been replaced by a transformer, try the effect of increasing the 1½-volts negative bias on the first audio valve to 3 volts negative. It will depend principally on the particular valve in use whether results are the same or worse; if they are no worse, leave the bias at 3 volts negative, as this will economise in B current; if, however, quality is impaired, return to the 1½-volts negative.

The improvements described have been dealt with more or less in the order in which they should be made. In order to dispel any shadow of doubt, however, the following suggestions as to order may be followed, particularly where it is desired to spread the expenditure over as long a period as possible and have the receiver out of commission for only a day or so at a time:—

(1) Fit panel and wire filament switch, then put receiver into commission again until funds for next improvement are in hand.

(2) Fit inter-valve transformer, or, if push-pull output is adopted, both input and output push-pull transformers. Put receiver into commission again until output choke and condenser are acquired.

(3) Fit output filter (assuming that a single output valve is used) and again introduce the receiver to the family circle.

(4) Replace home-made plate resistance for detector valve by commercial wire-wound resistance, the set then being again available for use.

(5) Incorporate filter circuit (wire-wound resistance and condenser) for detector valve.

All these changes having been completed, the receiver should now give really excellent volume and quality on the local station, providing components and construction are both sound. It is still, however, unsuitable for distant reception, although some patient listeners may be able to achieve fair results in this direction.

WANTED AND FOR SALE.

For column of casual advertisements see page 32.

RADIO DIRECTORY

What to Buy and Where

CITIES

AERIAL MASTS	Domestic Radio Co., Ltd., 300 Queen Street, Auckland.
ALTONA & HAMMARLUND-ROBERTS SETS.	Johns, Ltd. Chancery Street, Auckland.
BURGESS RADIO BATTERIES,	All Radio Dealers.
CROSLEY RADIO	Abel, Smeeton, Ltd., 27-29 Customs St. E., Auckland.
CROSLEY RADIO RECEIVERS	G. G. Macquarrie, Ltd., 120 Willis Street, Wellington
CROSLEY RADIO	Abel, Smeeton, Ltd. Rep.: G. MOSES James Street, Tangare.
DAYTON All-Electric Radio ...	Superadio, Ltd., 147 Queen Street, Auckland.
EMMCO RADIO PRODUCTS	Johns, Ltd., Chancery St., Auckland.
EMMCO RADIO PRODUCTS	Thos. Ballinger & Co., Ltd., Victoria St., Wellington.
EMMCO RADIO PRODUCTS	L. B. Scott, Ltd., Worcester St., Christchurch.
KING RADIO RECEIVERS ...	F. J. W. Fear & Co., 63 Willis Street, Wellington.
LISSEN RADIO PARTS AND KITS	All Radio Dealers.
LOUDSPEAKER AND TRANSFORMER REPAIRS	A. E. Strange, 404 Worcester Street, Christchurch.
MAJESTIC RADIO RECEIVERS	Kirkcaldie & Stains, Chief Wellington Agents, Lambton Quay.
MULLARD VALVES	All Radio Dealers.
PILOT 1930 PARTS AND KITS, ETC.	Abel, Smeeton, Ltd., 27-29 Customs Street East, Auckland.
PILOT 1930 PARTS—PILOT SUPER WASP KITS, GILFILLAN, KELLOGG and ATWATER KENT SETS	Harrington's, N.Z., Ltd., 138-140 Queen St., Auckland. 40-42 Willis St., Wellington.
RADIOLA RECEIVERS	Chas. Bennett, Ltd., 619 Colombo Street, Christchurch.
RADIOLA RECEIVERS and Expert Radiola Service.	Farmers' Trading Co., Ltd., Hobson Street, Auckland.
RADIO REPAIRS AND SERVICE	E. G. Shipley, 183 Manchester Street, Christchurch.
AIR COLUMN SPEAKERS	Royds-Howard Co., 553 Colombo Street, Christchurch.
COUNTRY TOWNS	
CROSLEY RADIO	J. C. Davidson, Main Street, Pahiataua.
CROSLEY SETS	Abel, Smeeton, Ltd. Rep.: C. Ruseos, 409 Devon Street, New Plymouth.
CROSLEY RADIO	D. A. Morrison & Co., Victoria Avenue, Wanganui.
MAJESTIC ELECTRIC RADIO	Berryman's, The Home of Music, Palmerston North.
MAJESTIC, ATWATER-KENT AND RADIOLA ELECTRIC SETS	Radio House, Hamilton. G. S. Anchor. Manager.
PHILIPS VALVES AND APPARATUS	All Good Radio Dealers.

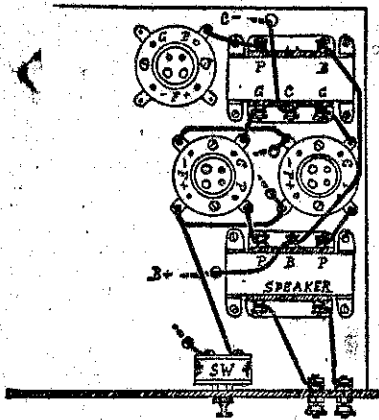


FIG. 2.

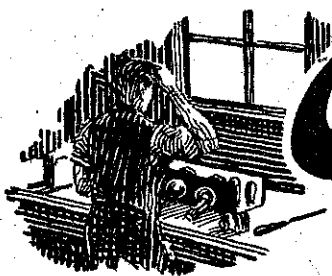
Connections for a Push-Pull Output Stage.

Note that although the speaker terminals are shown mounted side by side in order to make the connections clear, they are, in fact, mounted above one another. A reference to the panel lay-out will render this clear.

condenser is—unless the speaker is disconnected—connected directly across the B battery, whether the set is switched on or not. A leaky condenser in this position would obviously have the effect of running down the B battery, possibly with considerable rapidity, so be sure that the condenser used is one of first-class quality. In view of this objection, some constructors may wonder why this particular design of output filter is preferred to one of those in which the condenser is not connected across the B supply. The object of adopting this design is to keep the audio frequency currents out of the B supply, which, were it of appreciable impedance to these currents, might be the cause of distortion, or, worse still, an audio-frequency howl or "motor-boating."

A further refinement having the same object is that of incorporating a filter circuit in the B supply to the detector valve. This filter circuit comprises a 2 or 4 mfd. condenser (which must be of the highest quality for the same reasons as are outlined above), and a wire-wound resistance; the precise value of this resistance is not important, and if the constructor has one on hand or can readily obtain one of any value between 10,000 and 50,000 ohms, it may be used—about 20,000 ohms is the usual value. The wiring diagram depicts the manner of connection very clearly, and it is not considered necessary to give any additional directions.

When incorporating this filter circuit for the detector, it is by no means a bad plan to take the opportunity of



Questions and Answers



In Brief.

W. J.P. (Hokitika).—You can obtain a suitable unit from Rodger Importing Company, Christchurch.

J. I. BILTON, Lowburn Ferry, Otago, would like to hear from a listener who has assembled a 4-valve A.C. Brown-ing-Drake in regard to volume, range, etc.

Speaker Terminals.

"WAIKAWA" (Picton) asks the reason of three terminals on a Baby Grand speaker. He states that he heard an explanation from the Gisborne station one evening, but the critical part was spoiled by static.

A.: The three terminals consist of a common and an alternate for the positive, which connects with either of two impedances so that the speaker impedance may be as nearly matched to that of the last valve as possible.

2. Why does a Ford generator run hot after charging for one or two hours?

A.: This is quite usual in this type of generator. On some occasions they get so hot that it is impossible to bear the hand on the body.

Obtaining an Earth.

WISHING to obtain the best earth possible "Earth" asks if the following is quite in order:—I intend running a wire under the aerial, buried about a foot and connected to four plates, each about six feet under the surface. Is there any need to have the lead wire of each plate to the main earth exactly the same length and spaced evenly?

A.: This will make a good earth. It is, of course, working on the large condenser plan, and the plates may be regarded as being one over the other. In this matter

optimum capacity of aerial and earth system may be obtained. There is no need to have the spacing and the wires exactly the same. The correspondent states that he will have to deviate slightly from his original plan, and take some of the earths to an angle. This will not appreciably affect the working of the set.

Coil Design.

"W. H." (Otago) finds that he cannot tune the whole of the broadcast band with his .00015 condenser, so asks the specification of a suitable coil. He states that 4QG is the lowest frequency station he can get. He just misses 2YA.

A.: With a small condenser it is impossible to cover the whole broadcast band with one coil. Condensers of this type have the advantage of being able to separate the stations better than the larger type, but it is impossible to construct one coil that, in conjunction with this condenser, will cover the broadcast band. Another will have to be designed, and although the correspondent has not stated the diameter most suitable, we offer the following as a suggestion:—Diameter 2½ in., size of wire 24 gauge DSC, number of turns 100. The lower frequencies may now be covered satisfactorily.

Circuit Required.

COULD you oblige me with the circuit for an Airzone 3 coil tuner? asks "A Radio Enthusiast."

A.: It is not clear which you mean, one for a DC or an AC set. As soon as possible we shall publish a circuit of a three-coil tuner for an AC set. If you require DC, please write again.

ANOTHER correspondent, "G.M." (Christchurch) asks for such a circuit as the above to work from AC. This correspondent should see the answer to the above.

Pentode's Push-Pull Amplifier.

I INTEND to construct the push-pull amplifier described by "Pentode," writes E.H.B. (Inglewood) but am not clear on two or three points. In my set the A+ and B— are connected together, while on another terminal B— ground and C+. In the push-pull amplifier A—, B— and C+ are in the same terminal. What shall I do?

A.: Take your A+ off the B— terminal, and put it on one by itself. Con-

nect A— to B—, C+ and ground. If this is not convenient, disregard the B— to the amplifier.

2. Can you supply the data for constructing an RF choke?

A.: As several correspondents have asked for these details, "Cathode" will devote an article to this subject.

See notice published on this page.

Circuit for a Charger.

COULD you supply a circuit for a Tungar bulb? asks "F.G.V." (Master-ton).

A.: Sorry, Mr. "F.G.V.," but this is a trade circuit, and we are unable to publish any details; in fact, you are not allowed to make it up. A and B battery chargers can be obtained for a ridiculously low sum, and it would not be worth while making one.

Questions and Answers

OUR Question and Answers Department are always prepared to give consideration to the problems of our readers. This service is gratuitous, but a few courtesies are asked.

1. All technical correspondence should be addressed Technical Editor, "Radio Record," Box 1032, Wellington.

2. Be brief, do not make apologies for writing, and where possible, set out the questions in tabular form and state name.

3. When diagrams to be returned or a query of a nature that is not suitable for discussion in the columns is sent, include a stamped and addressed envelope.

4. In general we cannot undertake to discriminate between competitive trade apparatus.

5. If you prefer to use a non-de-plume keep the same one if writing again. This helps in the entering of the queries for future reference. All letters must be signed with full address. Initials will be used in answering.

nect A— to B—, C+ and ground. If this is not convenient, disregard the B— to the amplifier.

Another Push-Pull Problem.

HAVING read your article on push-pull, I would like to incorporate it in my set, which uses 201A and a 603 as a power-valve. Can I use another 603 in push-pull?

A.: Yes, C603 is the equivalent of 171A, and is quite a good power-valve, especially when used in push-pull.

Transformer Problem.

O. L.C. (North Otago) wishes to construct an amplifier using Ferranti Transformers, but he is at a loss to know the designations of the transformer to use.

A.: Input AF3C, output, if an ordinary cone speaker, which is not provided with an output transformer and yet requires one, an OP4C with a 25 to 1 ratio. If the correspondent wishes at some future date to use a dynamic speaker he could use OP4C and disregard the secondary terminals connecting the plate terminals of

Connecting a Microphone.

HOW can a microphone be connected to an amplifier, asks "S.E." (Taranaki).

A.: There are two types of microphones, having two and three connections. The cheaper carbon microphone has two terminals, one is connected directly to the primary of a suitable transformer, and the other to a small battery to the transformer. Such a transformer has a step-up ratio of 1 to 100 or 1 to 200. Their manufacture would be very laborious, but they could be obtained from certain dealers. Try Hartle and Gray, Auckland.

2. What is the amperage of a 6-volt dynamic speaker? What trickle charger would be best to use for it?

A.: About half an amp., so that an ordinary ½-amp. trickle charger will do the job. If there is any hum, shunt it with an electrolytic condenser, or one with a very high capacity.

3. What B battery do they work best with?

A.: As high as possible. Very satisfactory results can be obtained from 135 volts upwards, but for power amplification 250 at least should be used with the UX245 type of valve.

4. Which will give the more volume, C603 or B605?

A.: The latter, but it will not be able to handle the same undistorted output as C603. Unless used in push-pull, 605 is not suitable for a power amplifier.

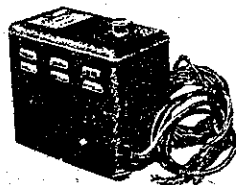
Connecting Audio Transformers.

WHAT are the correct connections to the audio transformers of a neutrodyne set?—T.H. (Houghton, Bay).

A.: The terminals marked "G" on each transformer are connected directly with the grid of the following valve. GB is connected with a grid bias negative of suitable value, or, if this is not provided, to F—. Of the primaries P is connected to the plate of the preceding valve and B is connected with the power supply in the case of both transformers. In the first case, it should be about 40 volts, in the second, about 90.

2. I have found that amperites are unnecessary with Philips valves.

A.: Yes, naturally. Amperites are merely resistances, designed to cut down the voltage from a 6-volt battery to 5 volts for various American valves. Where the voltage of the valve is 6, and is used with a 6-volt battery, a resistance is obviously unnecessary. A simi-



MAXUM "B" ELIMINATOR

THE exceptional features of the Emmco Maxum "B" have quickly brought it into prominence. It is designed to operate sets up to and including seven valves, and has a variation of 20 volts for all tapplings.

PRICE £8/15/-

A Maxum "B" and an "A" Socket Power Supply make your Set All-Electric.

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lar state of affairs exists with the 4-volt battery used on a 4-volt valve.

3. Why do some sets require much less grid bias than others?

A.: This depends on the last valve, which does not always adhere to the maker's curves.

Cannot get Distance.

WHY can we not get past Australia? asks "C.I." (Motueka). We have a five-valve Neutrodyne with batteries almost new. One and a half volts are applied to the valves. The earth and the aerial are both good.

A.: The valves in your Neutrodyne should be supplied with 5 volts on the filament, but we think you must have made some error, for you certainly could not get Australia with 1½ volts on the filament. Getting past Australia is not particularly easy, especially with a Neutrodyne of only five valves. There is no royal method of getting Japan and America other than good aeriels and carious, fully charged batteries, and good components. If your set has been in use for some considerable time, you should have the valves tested.

Origin of Morse.

WHAT is the origin of the Morse received sometimes with station 2FC, and at times on 220 and 550 metres.

A.: This is a question of no mean dimensions. Morse may originate from a hundred and one difference sources, and unless you or a friend can identify the source we cannot help you.

Matching the 245.

HOW many turns should I put on my moving coil loudspeaker to match the impedance of the new 245 power valve?

A.: The impedance of this valve is 2000 ohms, so that 70 turns will have to be put on.

2. Will the output transformer carry the current?

A.: Yes, OP4C will carry the current from this valve. It is doubtful if cheap transformers would. The writer has been using the Pilot transformers for some considerable time with a pair of these valves. There has been no tendency to choke, and no semblance of a burn-out.

Short-wave Adapter.

WE have a screen grid 7-valve all-electric set, writes T.N. (Nelson). Is it possible to use the screen grid short-wave adapter described in the "Listeners' Guide"?

A.: Yes, quite. It will require, however, the use of batteries. All electric short-wave adapters are possible, and when we get the opportunity we shall describe one in the "Radio Record." An adapter used with an electric set connects just as with a DC set.

2. Would it be better to use the dynamic speaker supplied with the set, or earphones?

A.: For use with the adapter alone use the phones, but when the amplifier is attached it will be necessary to use the speaker. If telephones are used after an amplifier noise is amplified to a very great extent. This spoils the reproduction, and makes listening unpleasant.

Coils for the All-Electric.

WHY cannot low lost coils be used for the AC Browning-Drake? asks "New Chum" (Tauranga).

A.: We remarked in the article that coils that were previously used in a Browning-Drake were quite suitable. This includes space wound coils. These are more efficient, but with the efficiency of modern valves and transformers, one can afford to lose a little efficiency on the coils. For this reason, they are made as simply as possible.

2. I read in the "Record" that the B.D. was notoriously unselective. Is this a printer's error?

A.: No. The Browning-Drake as described is certainly a little unselective, but this lack of selectivity will not worry those people who are away from a powerful station. Selectivity is gained by a loose coupling in the aerial coil, and

more than one stage of radio frequency. This type of Browning-Drake has neither of these attributes, though the introduction of a fixed condenser in the aerial lead will quite frequently sharpen selectivity, and with certain coils increase the volume.

R.F. Booster.

"SCREEN GRID" (Ngaio) complains that he cannot prevent feedback when using a S.G.R.F. booster. This is unshielded, and situated some 10 inches from the set.

A.: Shield grid boosters are not always satisfactory. The trouble occasioned by feedback is very great. The correspondent should have some shielding arranging it so that the plate wire from the top of the valve is entirely shielded from the grid. The lead should be encased in lead, and this grounded. The best arrangement is the valve built in the set, and shielded from the coil as described.

Applying C Battery

Method of Improving Tone

IT is surprising the very large number of sets at present in use without a "C" battery. This small battery, the price and upkeep of which is almost negligible, is very frequently omitted by set designers and constructors. Its purpose is twofold:—

1. To improve the tone by impressing the voltage swing on the centre point of the valve's curve.

2. To reduce the drain of "B" battery current.

A "C" or grid bias battery is very easily connected up. Examine the last stage and it will be noticed that on one side of the transformer a wire goes to the valve socket (G) and another to the "A" negative. This is the offending wire. Break the connection and take it instead to the negative terminal of a suitable battery. The positive of this battery is connected to "A—." The value of such a battery will depend upon the valve used in the last stage.

A table showing the number of grid volts for various valves would involve a large amount of space, but the manufacturers mark clearly on each carton the amount of bias to be applied, and this should be the value of the battery. If a complete battery with this voltage is not obtainable, either connect two in series or arrange the tapplings so that the difference between the two is the voltage required.

The last valve of a multi-valve set is not the only one that should be biased. It is preferable to put a small bias of 4½ volts on the second audio valve. This is done in the same method as previously described.

If your set is not biased, make this small outlay in expense and you will be surprised with the remarkable improvement.

IF you have a milliammeter connected in the common B+ lead, remember that it should be shunted by a large condenser.

WHEN rigid wires are to be soldered together they should not be placed end-on, but one should be bent to run parallel with the other for a ¼ of an inch or so, to provide an ample surface for the joint.

Tips and Jottings

A Makeshift Drill.

IT sometimes occurs that a small hole is required in an ebonite panel, and no drill is available. An ordinary bradawl will make a very good substitute, and it is surprising how quickly it bores a hole. The method of using is to rotate the tool backwards and forwards through about half a turn, pressure being applied to the handle. It is advisable to occasionally to lift the point out of a hole and place it back in a different position, so as to ensure that a really circular hole is made.

Indoor Antenna.

AN indoor antenna is quite efficient for short-wave work, as, when working on high frequencies, height and length do not matter very much. Many short-wave amateurs, in fact, use such an antenna in preference to an aerial, and excellent results have been obtained by some with a vertical indoor antenna only six feet long. Atmospheric are considerably reduced in strength by the use of such a system. Indoor antenna should not be made too long, and should be run near an outside wall of the house. This will help to keep it away from the house lighting system, thus avoiding the chance of picking up hum.

A "Mains" Precaution.

ONE of the easiest and most effective precautions that can be taken with a receiver, using an eliminator, is to insert a fixed condenser in both the aerial and the earth leads at the point where these enter the set. When buying large fixed condensers for this use, remember that they should not be worked at their "test" voltage. Usually the working voltage should not be more than half the test voltage, so that for use on 200-volt mains, condensers tested at 400 volts or over should be used.

An Aerial Hint.

AERIALS which are quite taut during wet weather, slacken considerably when conditions are dry. This

Short-Wave

(Concluded from page 32.)

7LO, at 5.30 a.m., a carrier only could be heard. By 5.45 a.m. a piano was well received at R3-4. Signals increased to R7-8 by 6.30 a.m. Slight crackling static and a slow fade were noticed.

On 43.6 metres (about) and 49.2 metres weak foreign voices could be heard.

5SW, Big Ben was very "gurgly" at R8. Talk was about 75 per cent. readable at first, but went off considerably.

2ME and GBX were R9 and R8 respectively at 8 p.m. with duplex telephony. KZRM was tuned in at 9.30 p.m., when a clock struck the hour of 6 p.m. This was quite a novelty in the way the hour was struck. The nearest I can describe it is "Doo, Dah, Doo, Dah," was repeated six times, each "Doo, Dah" being in place of the usual single stroke. The call KIXR was also given.

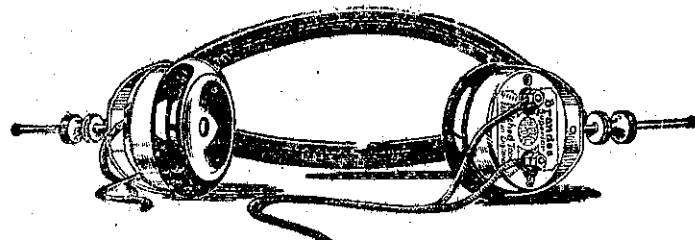
Interesting Test

I THOUGHT you would be interested in the test carried out on October 20 by VK2ME and GBX. VK2ME was R9, with slight fades. GBX was R7 at best period. Mr. Hughes's conversation with Sir E. Binn in London was very plainly heard from VK2ME. With regard to the station of the General Electric Company, W2XAC is the call sign, and it transmits on 34 metres (8824 kilocycles).—S. Saunders, Wellington.

sagging generally means that the lead-in, which would previously clear the house, is now dangerously near it, and a slight wind may swing it against metal gutterings. Thus signal loss is caused, or more often a series of irritating noises occur which are frequently attributed to atmospheric trouble. Whenever there is a long spell of dry weather, an aerial should always be slightly tightened to avoid this unwanted sag, though if too much slack is taken in, a break would probably occur when the aerial becomes wet once more.

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Bangkok, Siam.

THE following will be of particular interest to shortwave listeners who have tuned in to the new Siam station at Bangkok, or seen it mentioned in these columns during the last week or two:—The first telephone conversation on shortwaves between Germany and Siam was recently conducted, when the Siamese Minister of Traffic, Prince Purachatra of Kambaeng, Bejra, while in Berlin, was afforded an opportunity of attending the tests now being made by the German Post Office in conjunction with Telefunken and the Transradio Company.

At the German end, the Nauhen short-wave transmitter is used, while in Siam, there is the shortwave station recently installed at Bangkok.

This comprises a 20 kilowatt short-wave transmitter supplemented by a standard 3 kilowatt telegraph and telephone transmitter of the marine type. This is set apart for communication with both ship stations and nearby land stations. The two aerial masts are moored in concrete foundations, containing, in small cavities, a liquid protecting them against termites. Another interesting feature is the provision of a safeguard in the shape of a contact manometer arrangement for the valves which, as the water supply in the tropical climate becomes exhausted, automatically cuts out the high tension.

There are two beam aeriels, for wavelengths of 14.5 and 17 metres respectively.

Apart from the radio telephone service, the Bangkok station is used for the transmission of wireless telegrams between Europe and Siam.

When, a short while ago, the Japanese high-power radio station at Nagoya was inaugurated, reference was made to the probability of this being the last long-wave radio telegraph station ever to be built. In fact, the new Siamese station is a striking instance of this change in practice.

7LO, Nairobi.

NOW that this East African short-wave station is again audible in this country (morse interference and static permitting), the following will remind old listeners and be of use to new ones.

The Nairobi station, call sign 7LO, normally transmits daily from 3.30 a.m. to 6.30 a.m. (N.Z.M.T.). Sometimes, instead of closing down at 6.30 a.m., it relays the 5SW, Chelmsford, England, programme for about an hour. The wavelength used for all transmissions is 31 metres.

Eiffel Tower.

FURTHER particulars are to hand regarding the experimental transmissions carried out daily by the Eiffel Tower on a wavelength of roughly 40 metres with a power of some two kilowatts in the aerial. The tests are made regularly during the periods 4.45 a.m.

Are You Satisfied with Your Reception?

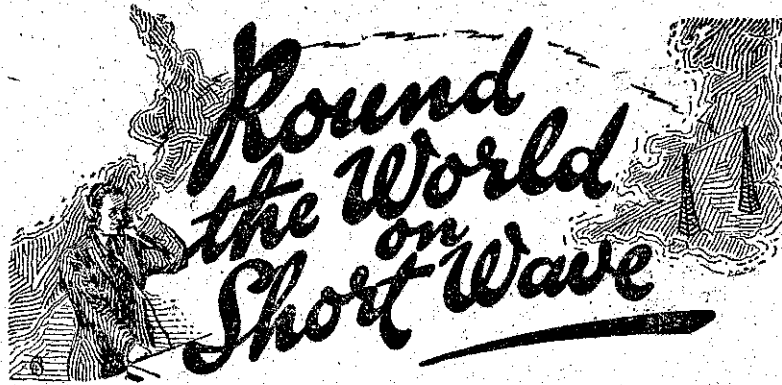
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THIS page is conducted in the interests of shortwave enthusiasts. A weekly log comprising notes of reception and interesting topical events is contributed by Mr. F. W. Sellens, Northland, Wellington, but all listeners are invited to send in paragraphs of general interest.

to 5 a.m., 8.45 a.m. to 9 a.m., and 10 p.m. to 10.15 p.m., New Zealand mean time.

Gramophone music is broadcast, and the following announcement made between items: "Allo! Allo! Ici la station radio-telephonique de la Tour Eiffel. Emission d'essai sur ondes courtes" (test transmissions on short waves). The exact wavelength used is given out at the end of each transmission.

W6XN, Short-wave Station of KGO.

THE usual Wednesday reception of W6XN has been missed recently. This high-power Californian short-wave transmitter can now be heard on Tuesday, Thursday and Sunday between the hours of 2.30 p.m. and 8.30 p.m.

Ten Countries in One Day.

M. R. T. STANTON (Christchurch) reports listening to ten countries on October 10, as follow: England, Holland, Germany, United States of America, Siberia, Philippine Islands, Java, Siam, Australia, and New Zealand. I think that covers most of the countries usually heard here, and to get them all in one day is a good performance.

Saturday, October 5.

BIG Ben at 5.30 a.m. from 5SW, was slightly gushy at R8-9. Mr. Ivor Brown gave his fortnightly film talk, which was 100 per cent. readable. Later, a very interesting talk was heard from Mr. Reg. Kember, a village blacksmith from Kent. Mr. Kember told his listeners all about his craft, tracing it from olden times, when the work was simply shoeing horses and making or repairing agricultural implements, to the modern smithy, where the latest machinery is installed and where, beside the original class of work, all other connected with metal is undertaken.

The musical programme commenced at 6.18 a.m., when surging and ripples were more noticeable.

PCJ was, except for slight static, perfect from their first item at 5.45 a.m. till closing about 6.30 a.m., at strength from R8 to R9. IMI, Rome (?): A station was heard on about 43.5 metres, with foreign talk at R4, fading right out at times. This may have been IMI, as this station operates on this wave, and has been heard in New Zealand.

Forty-seven metres (about). Very weak talk was heard. Konigsbrusterhausen started just before 6.30, with talk at R9. Music was heard later. Static spoilt reception.

PCJ's afternoon programme varied from R1 at 1 p.m. to R9 at its best at 4.30 p.m. They signed off at 5.28 p.m. at R8. Static was very bad. KDKA was spoilt by gushing. 2XAD was quite good, but not so strong as a few weeks ago. R4-5 at 1.30 p.m., increasing to R8 at its best. On 34 metres and 32.5 metres weak voices at about R2 were heard, but could not pick a call. 2ZC, Christchurch,

was a good quality, but not the volume to be expected. 2ME, with the races at Randwick, was well-received at R9. W2XE, relaying WABC, Atlantic City, was tuned in at 4.55 p.m., when a Wuritzer Organ recital was in progress. The "Rose Medley," which included "Roses of Picardy," "Moonlight and Roses," etc., was received well at R8. They signed off at 5.30 p.m., "till 8 a.m. Eastern Standard Time." The wavelength was given as 49 3.10 metres.

PCJ at 7.30 p.m. were R7, with records. Strength increased to R8. KZRM on 48.8 metres was good at R8.

Sunday, October 6.

KDKA was first heard at 9.40 a.m., when they were R4. Strength went off and was lost about midday. Later they were not up to their usual volume. A bad surge spoilt reception. 2XAD was just audible at 11 a.m., and R2 at 12.30, but could not locate this station during the afternoon.

2XAF and 2XAC were only R4 at 3 p.m., making a rapid increase to R8 by 3.30 p.m. From then onwards reception was excellent from both these stations, which were transmitting the same programme.

W6XN was first tuned in at 1.30 p.m., when they were R9, and remained at that till nearly 3.30 p.m., when volume and quality went off. By 7 p.m. they were only just audible. W2XE was very weak to-day, about R2-3.

Monday, October 7.

7LO was audible, but Morse was too strong, smothering their signals. On about 49 metres very weak voices could be heard.

The German commenced with a short talk at 6.30 a.m., followed by orchestral music at R9. RA97 at 10 p.m. were transmitting a band, which was well received at R9.

Tuesday, October 8.

THE station on 49 metres was again too weak to receive properly. Another weak station on about 45.6 metres was noticed.

20.3 metres (about). An American lady was heard talking on this wavelength, soon after 6 a.m. A man spoke later. Strength was R3-4. Reception was too gushy to be readable, except odd words—not enough to understand the nature of the talks.

7LO Nairobi was not audible until just before 6.30 a.m., when a lady could be heard singing at R2-3. 5SW, "Big Ben" was not heard this morning at the usual time, it could not have been "put on the air," as music was heard quite clearly just after the time the clock should be audible.

Reception was about R5-6. Readability 75 per cent.-100 per cent.

The German, also, was weaker than usual, being about R7. GBX and 2ME at 7.30 p.m. were quite good, except that the Sydney station had a very noisy

background. RA97 could just be heard through a heavy barrage of static. KZRM was R9, with plenty of static.

Wednesday, October 9.

MUSIC could just be heard at 6 a.m. on 39.2 metres. 7LO, Nairobi at R4 was spoilt by morse QRM. 5SW was spoilt by a strong roaring noise like a locomotive blowing off steam. Reception was spoilt by this. The German (Konigsbrusterhausen) was R8 with orchestral music.

A station could be heard just above the German. Foreign talk was heard.

GBX and 2ME were both R8 at 6.45 p.m., the English station being the better. PCJ was heard calling Bandoeng at 9.30 p.m.

KZRM were R8-9 with a musical programme. The call was given as KZRM, Radio, Manila, at 10.10 p.m. ZL2BE and ZL2AX with gramophone records were well received.

Thursday, October 10.

ON 44.5 metres a weak, distorted voice could be heard. 5SW was again spoilt by a similar roar to yesterday. Big Ben could be just heard through the din.

7LO, Nairobi, was better, strength being about R4. Morse was troublesome, as usual. After 6.30 a.m. they apparently relayed 5SW. It was impossible to check this, as the English station was not clear enough.

The German on 15 metres was heard at 9.20 p.m. with duplex telephony. They signed off at 10.15 p.m. with a three-letter call, the first being "D," the rest were doubtful. PCJ were R8 with duplex. KZRM at 9.40 p.m. were reading news items, etc. Music was heard later. RA97 with talks and music were R8. On 16.8 metres (about) music was heard at R3-4 just after 10 p.m. It was probably PHI. A call was not given while I had them.

Friday, October 11.

FROM 5.35 a.m. PCJ was perfect till signing off at 7.35 a.m. R9 to commence, decreasing to R7-8. The German put on a good programme of orchestral music. Volume R8-9 at 6.30 a.m., going off to about R4 by 7.30 a.m. (Concluded on page 31.)

FOR SALE OR EXCHANGE

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

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