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AND
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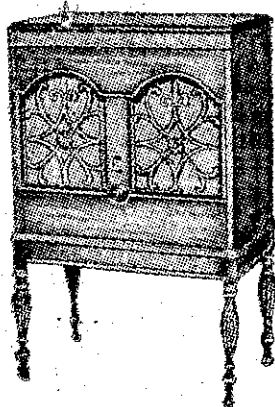
WELLINGTON, FRIDAY, JUNE 27, 1930.

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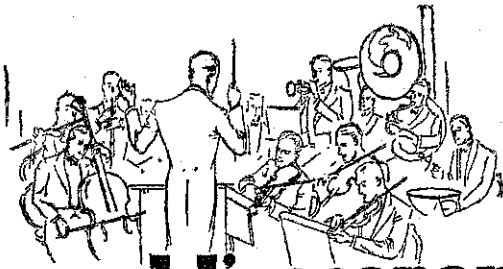
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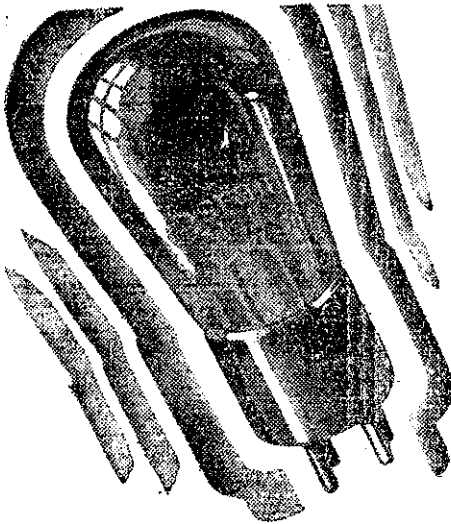
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Write for the address of your nearest RADIOLA dealer.



The world's economy all-purpose valve



SPECIFICATIONS:

Fil. Volts 4.0 max.
 Fil. Current 0.1 amp.
 Plate Volts 150 max.
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 Impedance 8,500 ohms
 Normal Slope. 1.77 ma/volts
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In every way L410 costs you less. It is lower in price. It consumes only one-tenth of an ampere and makes your "B" Battery last longer. The filament is coated in a special manner, thus prolonging its life to an appreciable extent. You can use L410 in any 4-volt battery-operated set for Radio frequency amplification, as a detector, or in the first audio stage. Your dealer can advise you which Osram Valve you need—he knows all the equivalents. If he should not have in stock the Osram Valve you need, it will be sent direct, safe delivery guaranteed. The "Osram Valve Guide"—a useful little book detailing all Osram Valves—is free for the asking.

Osram Valves

Made in England

Advertisement of the British General Electric Co. Ltd.
Branch Office and Public Showrooms: 31-37 Taranaki Street, Wellington



ALL secondary schools in San Paulo, Brazil, have been equipped with all-electric receivers.

A SYSTEM of set-maintenance after purchase has been adopted by a Paris radio firm. For a small annual fee the customer's set is maintained in working order throughout the year.

A RADIO telephone service over the first two-way circuit linking the continents of South and North America, was inaugurated on April 3. The public telephones in Argentina, Chile, and Uruguay are now connected with those in Mexico, Cuba, the United States and Canada. The radio stations are situated at New York and Buenos Aires.

A CLOCK containing a radio aerial wound in its base is now on the American market. It is equipped with connections for light wires and terminals for connection with the radio set, and operates on alternating or direct current. The clock itself is not electrically operated, but contains a multi-zone dial, giving the time in each of the twelve zones of the world, thus making it easy to pick up a radio programme anywhere without computing difference in time.

H. R.H. Prince Purachatra, of Siam, who is already well known as a radio enthusiast, has added to his laurels by communicating on short waves with Bangkok while homeward bound in the Red Sea on the S.S. Flonia. The distance of 4000 miles was covered by a transmitter working on 46.5 metres, which the Prince had purchased during his European visit. The transmitter is valve-driven with 100 watts input. It would be interesting to know if any New Zealander has logged this station.

RUNNING motors with electricity derived from sunlight is a claim advanced by a German scientist who has devised a cell that converts light directly into useful quantities of electric current. A demonstration revealed that the current derived is so powerful that when a rapidly flickering light shines on the cell, a note vibrating at the same rate as the flickering light can be heard. The cell can be operated indefinitely without loss of efficiency, and is extremely sensitive to invisible infra-red rays. It is expected to be useful in measuring light intensity.

STATISTICS highly complimentary to British broadcasting are contained in a French radio journal. The English service, it is pointed out, beat "musical Germany" in its own field, incorporating 64.3 per cent. of music in the programmes, as compared with Germany's 56.4. In the matter of religious services Britain also leads with 5 per cent., as against 1 per cent. in Germany.

THE American Federal Radio Commission recently allotted five short-wave frequencies for the purpose of oil exploration. The method employed by surveyors is to transmit a radio signal simultaneously with a subterranean explosion of dynamite. By measuring the time lag between the reception of the radio signal and the sound, it is possible to determine whether oil deposits exist in the territory between transmitter and the receiver.

AFTER giving some information about the state of broadcasting in Russia, an article appearing in the "Daily Worker," an English Labour newspaper, concludes in the following interesting manner: "We workers who are interested in radio must realise its immense value to Russia from the educational and propaganda viewpoints. Hasten the day when our B.B.C. is smashed, along with capitalism, and radio control passes into the hands of the British workers." Wouldn't the license numbers mount!

THE N.B.C. of America now has in operation 73 relay stations, with 32,500 miles of leased telephone wires. The company is certainly prospering, for last year it received a revenue of \$3,000,000 from 199 advertisers who used the broadcasting facilities of the company to advertise their goods.

ONE of the Austrian stations now ends its news bulletin at 10 p.m. with a tactful suggestion that listeners should reduce their loudspeaker volume to avoid disturbing neighbours. The idea could be adopted with advantage by every station in the world.

THE American Department of Commerce by way of establishing an aviation weather reporting service, now has in operation twenty-four 2-kilowatt radio ground stations located along the national air routes. Fifteen more stations are in process of construction. When these are completed, they will provide every section of the United States in which regular flying takes places with half-hourly weather reports, as well as with a communication service.

THERE is no lack of enthusiasm in America among amateur transmitters. There are over 20,000 amateur transmitting stations operating at present, while it is calculated that there are hundreds of thousands of shortwave receiving stations. In England, however, there are only a few hundred stations licensed for transmitting on short waves, and this number remains almost permanent. It is more than probable that the stringent regulations in existence in the latter country is largely responsible for this unsatisfactory state of affairs.

Science will Plot our Commercial Tradeways in the Air

THIRTY-ODD years ago the world commenced the development of its sea legs. Commerce, and the competitive spirit among nations, developed their proportions until at length they were sturdy enough to obviate anything more than occasional overhauling. And when the Great Nightmare of 1914-18 had faded, the world settled into active contemplation, searching avidly for the new idea.

Throughout the four years of war, the mind of the world had figuratively dwelt high in the clouds—some nationals filled with the hope of world dominance, others with terrifying apprehension of winged terrors, which at night hurled their projectiles from the black envelope of night that spread above a quaking earth.

With war's collapse, the face of the world was changed by marking division and secession, but the mind had achieved what might be called an aerial awareness, and even as sea legs were nourished to withstand the stress of international competition, so did the British Empire visualise itself as the literal and future empire of the clouds.

Commerce took wings. Where once its ambassadors wallowed in the trough of oceans they now swooped through the heavens, shortening the gap between purchaser in Vienna and vendor in Glasgow; exchanging personal relationships for the erstwhile doubtful effectiveness of spasmodic correspondence, or establishing overnight trade associations which hitherto might have taken two weeks to effect.

The vocabulary of distance has changed from equations of hundred-miles to terms of hours, from the one-time complex of transport in form which changed every few-score miles, to the safe and incredibly fast simplicity of travel through the air.

NEW ZEALAND is no less enterprising in air thought than its nationals have been in effecting many other forward movements, and New Zealanders have been quick with the realisation of what significance lies behind the plotting of tradeways in the air.

At an opportune time, of course, since in a youthful country the major argument confronting new moves must be "Is the time right, are we ready; can we stand the strain of this new expense?"

Hence it is only within, say, the immediate past five years that this country has seriously focused its attention upon the subject of aerial tradeways and its associate questions.

The key word of life in 1930 is *Expedition*. Gone are the times of leisurely transmission, whether it be goods

or communications. The business man who now is content with spending two days in travel from Auckland to Invercargill will shortly find himself an anachronism, following laboriously behind his competitor who travels by air.

When Sir Thomas Wilford was Minister of Defence he was quick to appreciate the potential worth of commercial airways in New Zealand, and through his enthusiasm many aero clubs throughout the country achieved noteworthy bulk in membership. Extensive lists of flying tyros form the stimulus for public comment, with its inevitable invasion of commercial schedules and a resultant expedition in trade and trading utilities.

We have the vision, we have the realisation that within the next two years business men will cease to be satisfied with present transport systems, and there is ample enthusiasm. The one thing lacking—capital—will be furnished as soon as the present temporary financial uneasiness expires.

Before long, and because of the quick upthrust given by amateur flying, this country should be able to indicate in terms of no uncertain pride the flourishing condition of its merchant airways.

AND how does this affect radio? with the advent of trade and passenger traffic in the air a specialist branch will need to be created, a section which, in collaboration with the Meteorological Office, will enable planes to fly through dense fogs and in the dead of night, without fear of collision or lost bearings.

Radio beacons will provide these unfailing signposts, ever pointing in the right direction, immeasurably safe. These aerial signboards are heedless of wind and storm, they cannot be disfigured so as to misdirect the traveller, but will bring him comforting advice as he listens for their automatic instruction.

The Meteorological Office will be called upon to furnish daily bulletins about the weather "up aloft," so that with this dual safeguard commercial aviation will be well equipped against possible misadventure.

THE late war, fearful though it was, gave wings to commerce, but in providing swifter means of transit from town to town, from continent to continent, it also taught civilisation that without sight and hearing aeronautics was a hapless, blundering method.

Hence the need for the radio lighthouse, and the special branch of meteorology, plotting the upper pathways of the air, showing the airman all the (Concluded on page 2.)



DR. KIDSON,
Government Meteorologist, whose department will play a significant part in aerial commerce.
—S. P. Andrew, photo.

It Pays to Advertise Practical Proof

QUITE an interesting lesson for the electrical trade is contained in the experience of the British fish industry. To stimulate the consumption of fish, the trawlers agreed to a composite levy on themselves over a period, such levy to be devoted to advertising.

The levy was on the basis of 1d. per pound's worth of fish landed. Sir Gomer Berry, in presiding at the annual dinner of the National Advertising Benevolent Society in London, quoted the experience of the fishing industry in the expenditure of this money. Last year the total levy amounted to £40,000, and the results of the campaign that was launched have been amazing. The gross revenue of British trawler-owners has been increased over previous years by no less than £1,100,000, and the sales of fish increased in the year by 37,000 tons.

Trawlers which in the ordinary way were laid up for a considerable part of the year were provided with full-time capacity. In addition, 72 new boats were launched to engage in the industry, and other craft were laid down for the same purpose. As another important effect of this campaign, those trawlers and boats during the year burned an extra 150,000 tons of British coal, thus providing more work for British miners.

The experience of this collective effort on the part of business interests is illuminating, and suggests that the time is more than ripe for the initiation of concerted advertising on behalf of electrical interests in New Zealand. The position in the Dominion is that the supply of electricity is now on a fairly well-organised basis, but it can be considerably expanded with profit to the supplying authorities and benefit to the consuming public. The electrical trade stands to benefit markedly. As the use of electricity in home appliances expands, the public benefits in increased economy in labour and added home comfort. Three major interests are concerned, viz., the Government, which is the source of supply for the major power schemes; secondly, the distributing power boards and electrical supply authorities; and thirdly, the wholesale and retail electrical trade itself. Effort was made earlier to establish a joint advertising fund.

The benefits to be derived from proper use of this field are so great that it is sincerely to be hoped that nothing will hinder the consummation of the plans laid. The experience of the British fishing industry should give heart to all in its proof of the value of concerted advertising.

JANETTE ROTARY CONVERTERS

For the Operation of A.C. Electrical Apparatus in D.C. Areas.

Compact, Trouble-free, Filtered Type for Radio use—No Hum. 32-volt type for Delco Lighting Plants for A.C. Radio Sets.

Send for Descriptive Catalogue.

MOORES

Sole N.Z. Agents:

166 Queen Street, Auckland.
P.O. Box 1020.

With Fifty Natives Listening Church Service from 2YA Reaches Gilbert Islands

WE who listen, as it were, under the shadow of our stations, seldom realise just how far the transmissions we regard as commonplace reach. Only this week we have received from a correspondent a copy of a letter received from a member of the London Missionary Society stationed at Beru, in the Gilbert Island group. The letter tells of the conditions the listeners have to contend with, and of the joy our New Zealand stations bring to them:—

It is Sunday evening, and we have been listening-in with my new wireless receiver, which I built a few months ago to the design worked out for me by an expert whom I came to know while on short furlough in Australia. Static is always bad on the Equator, and for some months past it has been so prevalent that it has not been possible to use our wireless for

40 or 50 Gilbertese friends, including some of our teachers, a few senior students, the deacons of one of our Beru churches, the Magistrate of the island of Beru, and some of the island Church council.

A few had their wives with them.

We translated the various announcements to our Gilbertese Christians, and they were greatly interested and impressed. I think it is a real help to them to hear their fellow-Christians in a land far away across the seas, joining in worship of the one God and Father of us all. Some of the hymns sung were known to them, as we have them translated into Gilbertese. They especially enjoyed "O God our help in ages past."

Our little congregation has now dispersed, with minds not only full of wonder at the marvels of wireless, but with many stimulating thoughts in

Time Signals

SOME time ago we announced that 2YA intended to broadcast time signals from the Kelburn Observatory. That has now been put into practice, and at four and seven p.m. the signals go on the air. A few minutes prior to the hour a low note is emitted from the station. At the exact hour a strong note of different pitch is heard from the observatory, and this is followed by other notes of equal intensities.

N.Z. Airways

(Concluded from page 1.)
"nasty corners," providing him with sight at night—a sight which showed him with uncanny certainty through the most dense blanket of atmospherics—along the true course.

Thus equipped, New Zealand's trade-ways of the air are bound to succeed. Within the coming two years one expects to observe commercial flying fields throughout the country a-bustle with the movement of passengers and planes; to find air channels above the city more vital even to the national system than its arterial roadways.

And with this activity will come the opportunity for those with technical training in radio to control the movements of those "eyes" and "ears," thus inspiring public confidence that in a comparative degree New Zealand's merchant airways will equal the wonderful records of English companies.

Expedition, then, and, through radio and meteorology, safety.

bourne, etc., but 2YA comes in best of all. There is some fading at times, but the transmission is often so good we hear the toots of the motor-cars passing the street below the studio. I think it will be of interest to Wellington friends to know that we in the Gilberts are making a big effort to do what we can to raise a local fund toward the cost of the new ship John Williams. Our people are very poor, and have nothing to give but their "copra" (dried coconut) or money obtained from the sale of same. On our head station and on this island of Beru our teachers and students, boys and girls, together with ourselves, have succeeded in raising over £70. Our people in the islands are making copra which we hope to send to Sydney by the old ship on her last voyage in June or July. We hope sincerely to raise a total of not less than £500.—G.H.E. (Beru Island).

An Hour with Ketelbey

Vocal
and Instrumental

Compositions by This Famous English Composer
presented by

The Salon Orchestra and the Etude Quartet

From 2YA, on July 1.

Programme

- 8.1 : Overture—2YA Salon Orchestra (conductor, Mr. M. T. Dixon), "Chal Romano."
- 8.9 : Quartet—Etude Quartet, "Men of England."
- 8.13 : Instrumental Trio—Messrs. W. Haydock, S. Chapman and M. T. Dixon, "Suite Romantique."
- 8.23 : Soprano—Miss Gretta Stark, "Sanctuary of the Heart."
- 8.27 : Baritone—Mr. Ray Kemp, "In a Persian Market."
- 8.31 : Suite—Salon Orchestra, "Scenes from the Kinema."
- 8.43 : Contralto—Mrs. Ray Kemp, "Will You Forgive?"
- 8.47 : Tenor—Mr. Will Hancock, "In a Monastery Garden."
- 8.51 : Suite—Salon Orchestra, "By the Blue Hawaiian Waters."

ordinary listening-in, though we have used it for business communications every week in the daytime, when the atmospheric conditions are better. I tried it the other night, and found conditions were improving; we decided to try to listen-in to a church service.

To our delight we heard a service which came through very well. And where from? From the Terrace Congregational Church, Wellington. The preacher was the Rev. W. W. Newell, M.A., and his text was "A bruised reed He will not break," etc. We were not alone in our pleasure, for we had with us some

their hearts, which will, we feel sure, be a help to them in their Christian life and fellowship. I thought it might be of interest to you to know that among your fellow-worshippers was this little company of Gilbertese Christians and their missionaries on an island some 2600 miles away in the heart of the Pacific Ocean. Please give 2YA our grateful thanks and our congratulations both on their transmissions and on the general excellence of their programmes.

We can hear American and Japanese stations, also Sydney, Brisbane, Mel-

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Everywhere Available.

Use Our Booking Offices in Advance

S.O.S

TRAVEL IN COMFORT BY
CAR

WELLINGTON — PALMERSTON
NEW PLYMOUTH

Another Radio Exhibition

Christchurch to Have Olympia in July

THE Radio Olympia held in Christchurch in 1929 proved so successful that another on a larger scale is to take place this year. It will be held in the more commodious Christchurch Art Gallery. Two large halls in the gallery will be occupied, one by the stalls of the exhibitions, and the other will be used for the purpose of the evening concerts. These concerts will be provided by the Broadcasting Company.

It is anticipated that the success of the show will eclipse that of last year, for the radio dealers of Christchurch have profited much by the experience they gained, and the enterprise this year is being organised with the greatest enthusiasm.

The arrangement of the stalls will be a very interesting feature of the exhibition, and something very much out of the ordinary can be expected. The stalls will be the subject of a voting competition, and a valuable radio set will be the prize for the person who correctly numbers the stalls in their order of merit.

As there will be nine stallholders there will be nine different makes of radio sets from which the winner of the competitions will be able to select any set he chooses. These nine sets will be on view in a stall in the centre of the hall throughout the exhibition.

Olympia Programmes.

THE concert programmes will be in two sessions of an hour each, with a half hour's interval between in order that visitors may have the opportunity of inspecting the various types of sets on exhibition, and of recording their votes in competition.

There is little doubt that, as on the previous occasion, the public will be greatly interested in witnessing the actual performance of a programme for broadcasting, and the best entertainment talent in Christchurch has been engaged for the occasion. The artists will also include Mr. Barend Harris, of Sydney, the well-known bass-baritone, at present in New Zealand under engagement to the Broadcasting Company.

Each evening the children's session and the news session will take place at the exhibition. An orchestra under Mr. Harold Beck will be a feature of the evening concerts. A relay to 2YA will be carried out each evening.

Opening Night.

THE official opening of the Radio Olympia will take place at 8 o'clock on Tuesday, July 1. The chief speaker will be the Mayor of Christchurch, the Rev. J. K. Archer.

The evening's concert programme will be contributed by the Woolston Band, Mr. Barend Harris (bass-baritone), Miss Lottie Colville (soprano), and the Beckenham Male Quartet (Messrs. James Shaw, K. G. Archer, E. R. Pitman, and F. S. Jackson). The Beckenham Quartet is well known and justly popular for its concerted numbers.

Wednesday, July 2.

BOTH the Children's Hour and the News Session will be broadcast from the Olympia this evening.

A well diversified concert programme will be presented, the first section being of a miscellaneous nature, and the second being devoted to the presentation of items from "Tom Jones." A large orchestra under the conductorship of Mr. Harold Beck will be playing. Other instrumentalists will be the Woolston Brass Quartet and Mr. H. Glaysher (harpist). An interesting item will be a solo on bells, "Eventide at the Convent," played by Mr. Clarence Crawford, to orchestral accompaniment.

The vocalists for the first half of the concert programme will be the popular Valencia Quarter—Miss Lucy Fullwood, Miss Mary Taylor,

Mr. T. G. Rogers, and Mr. E. J. Johnson, who will sing three concerted numbers as well as solos, while Miss Merle Miller (Mezzo-soprano) will also be singing. Her item will be Rachmaninoff's "In the Silence of the Night," which will be sung to orchestral accompaniment. One of Miss Mary Taylor's songs, "The Hills of Donegal," will also have orchestral accompaniment. Other solos to be sung will be "Silver Moon" and "Prince Ivan's Song," tenor and bass respectively.

In the section of the programme devoted to excerpts from "Tom Jones," the vocalists will be the well-known Salon Quartet—Miss Corrie Astin, Miss Dulcie Mitchell, Mr. H. Blakeley, and Mr. J. Graham Young.

Thursday.

THIS evening will see another enjoyable programme. Classical

items will be introduced into the first half of the programme, while the second section will be devoted entirely to operatic numbers.

The 3YA Symphony Orchestra, under Mr. H. Beck, will play "Rosa-munde," Rimsky-Korsakov's "Symphony Antar," the "Nutcracker Suite," and "The Dance of the Archers."

Featured on the vocal portion of the programme will be Mr. Barend Harris, bass, who will sing songs in English, Russian and Hebrew.

In the first part of the evening's programme the Melodious Four (Miss Frances Hamerton, Miss Belle Renaut, Mr. Russell Sumner and Mr. T. D. Williams) will be singing, while the Grand Opera Quartet under Madame Gower Burns has been engaged for the second session. There will be two instrumental duets—Messrs. Albert Hutton (flute), and Herbert Fox (trumpet); Messrs. Fred Bullock (flute), and M. Withers (clarinet).

Friday.

FOR this evening many of the best variety artists in Christchurch have been engaged. Popular singers comprise Mrs. D. W. Stallard, Mr. C. R. Williamson, and Mr. R. S. H. Buchanan. Miss Elaine Moody's Hawaiian Trio will be heard in popular melodies. Humorous items will be contributed by such performers as Mr. Geo. Titchener, Mr. H. Instone and Mr. Jock Lockhart.

Mr. Les Grummitt, an artist at the piano, will provide improvisations and syncopations. The programme by the orchestra will again be a feature of the evening's concert.

Saturday.

MR. Charles Lawrence's "Minstrel Follies" will provide the whole of the entertainment, comprising old-time and present-day nigger melodies, plantation part songs, jokes, comicities, and tap dancing. It will be an exceptionally popular programme.

Unsuccessful Tests

IN recent experiments in trans-Atlantic broadcasts, both engineers and listeners were disappointed at the poor quality of reception. The general engineer of the National Broadcasting Company of America is of the opinion that the failure was due to magnetic disturbances caused by unusual sunspot activity. He explained that the extreme rapidity with which such disturbances become acute makes it impossible to foretell conditions for radio reception. However, if sunspot activity is the cause, an improvement in conditions should obtain for the next five or six years, after which they will again become unfavourable. The sunspot cycle is approximately eleven years.

AN EIGHT O'CLOCK REVUE

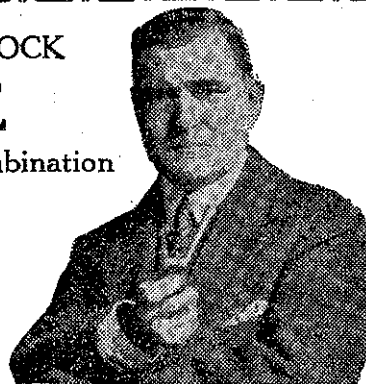
An Entertaining Combination

Featuring Mr.

Will Bishop

and the

Melodie Four



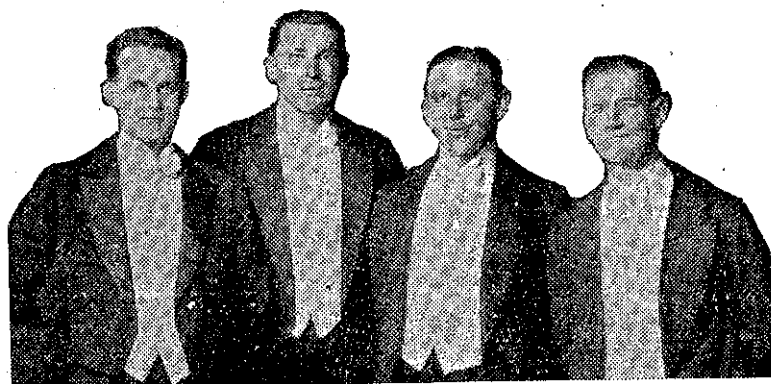
—S. P. Andrew, photo.

Mr. Will Bishop.

LISTENERS will be glad to learn that Mr. Will Bishop and The Melodie Four have agreed (temporarily) to forget their little differences (alleged).

These popular artists have arranged to join forces in the near future in the presentation of a series of revues which are being specially written and arranged by Mr. Will Bishop. These productions will be known as "The Eight O'Clock Revues" and the first instalment will be broadcast from 2YA on Saturday, July 26.

The Melodie Four.



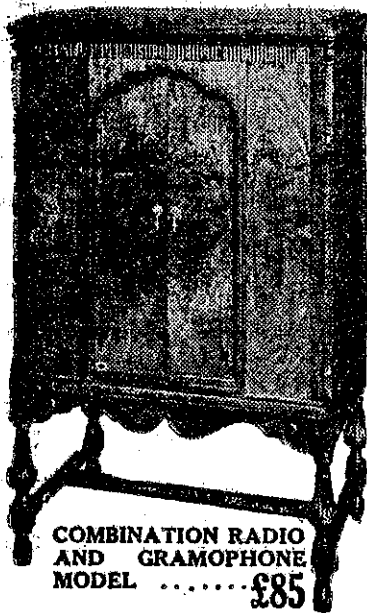
—S. P. Andrew, photo.

The New Conception
of Radio Quality

GULBRANSEN

NINE-IN-LINE

Precision-Built
RADIO



COMBINATION RADIO
AND GRAMOPHONE
MODEL £85

Other Models:

LOW BOY £50
(straight radio)

HIGHBOY £55
(straight radio)

Here is the Radio
we've eagerly awaited

—we invite you to see it.

We want you to enjoy the thrill of hearing the wonderful new Gulbransen! You'll instantly know what true precision methods mean in radio performance. Perfect reception! Amazing fidelity of tone! And beauty of console, of course. You'll hardly believe that so much can be bought for so little.

Factory Representatives:

H. W. CLARK Ltd.
182 WAKEFIELD ST., WELLINGTON

The Story of "Il Trovatore"

Broadcast from 4YA Next Week

"Il Trovatore" or "The Troubadour,"

concerns the love of Manrico, a troubadour, for Leonora, who is also loved by the Count di Luna. There is additional dramatic interest in the fact that these two are brothers, though neither knows this, for Manrico was stolen when a child by a gipsy woman Azucena, who brought him up as her son.

Manrico and Leonora are about to be married, when they hear that Azucena has been captured by the Count, who, on discovering that she is (as he believes) Manrico's mother, has ordered her to be tortured. Manrico goes to her rescue, and in Act IV we find him defeated by the Count, and captured and condemned to death. He sings the famous "Miserere" from his prison cell. Leonora, who stands outside, joining sadly in the refrain.

She goes to the Count and promises to give herself to him if he will set her lover free. He agrees, but she poisons herself, and dies in the arms of her lover. The furious Count kills Manrico and compels Azucena to see him die, learning from her, too late, that he has murdered his brother.

The famous "Anvil Chorus" is raised at the opening of the Second Act, in

Philharmonic Concert

A MOST successful relay from the Wellington Town Hall was carried out by 2YA on Saturday last, when the Philharmonic concert was broadcast. In these days music-lovers welcome these interludes of classic music, and the Wellington orchestra under Mr. Bishop are to be congratulated on the fine performance. Although the broadcast was good the performance cannot be compared with actual presence at the concert. This no doubt accounted for the good crowd who were present in the Town Hall. Movements to retain classical music are to be encouraged, and the orchestra deserve every patronage.

But delightful as was the relay many listeners found cause for complaint in the suppression of their dance programme through the lateness of the relay and the frequency test. Music such as this is rare, frequency tests much more rare, and it seems a pity that those who are entertained to their liking so regularly should complain on account of occasionally not getting just what they want. The results of giving people what they should want has had effect in England, where the standard of music appreciation is rapidly improving.

There is no doubt, but that these relays are widely appreciated and very many are anticipating the next concert in a month's time.

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P.O. Box 1082, Wellington.

Now Available.

A New Task for the Robot

THE robot has a new job in the Holland tunnel, in New York. His sensitive electric eye is now applied to the task of detecting the clearness of the atmosphere and furnishing an instantaneous and accurate record of hazy or foggy conditions in the great inter-State traffic artery under the Hudson River.

In applying the light-sensitive photo-electric tube to a task of this kind, the chief engineer and superintendent of the Holland tunnel, which connects New York and Jersey City, hopes to effect important operating economies and to provide an additional safeguard in controlling the air conditions in the tunnel.

As now experimentally used, the "electric eye" is directly connected to a recording device a quarter of a mile from the mouth of the tunnel. Impulses from the photo-electric tube guide a pencil point over a sheet of paper graduated in time and in volume. At any instant the supervisor knows how much haze is in the tunnel, and if the visibility decreases from any cause whatsoever he can relieve the situation by speeding up the fans or by putting additional fans into service.

The detector is under development by engineers of the General Electric Company, along lines suggested by the engineering department of the tunnel, and it must undergo a lengthy test before it is pronounced adequate for the job.

Short-circuited!

SHE: "When a man who bores me asks me where I work, I always say 'In a television laboratory.'"

He: "Aha, That shuts him up, I expect. But where do you work?"

She: "In a television laboratory!"

Telephone to Sea

THE charge for a three-minute telephone call to the Leviathan for the first day of sailing from England is £4/10/-, and each additional minute £1/10/-, the rate rising as the distance from the shore increases.

DOWN TO 14 METRES!

—and up to 500!!

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£100 Spelling Bee Inspires Formation of Spelling Clubs

Wave of Interest and Keeness Grows

Entries Close July 19

CORRESPONDENCE received from various quarters, and personal reports, show that popular attention has been arrested by our Monster Spelling Bee. As a letter from a correspondent (published below) shows, in some districts spelling clubs are being formed with a social purpose. Although, as the old Scotchman said, the drawback of a dictionary was that "the subject changed so frequently," the charm of checking up on existing knowledge and discovering new things is so great that, once caught in the lure of "new things," it is difficult to leave off. The benefit of a social evening is that there is the added excitement of discovering the weaknesses of others' knowledge.

IT has been represented to us by one or two intending competitors that they would appreciate the entrance fee being reduced to 1/-. As it is our prime object to create interest in the contest, we are happy to accede to this request, so that the entrance fee henceforth is 1/-. and those who have already entered will be refunded the money overpaid.

ANOTHER point raised by intending competitors has reference to the publicity of the proceedings in the early stages. It is not intended that the preliminary stages necessary to discover those to enter the final shall be conducted publicly. A limited number of friends of competitors may wish to attend, and that will be permitted, but organisation will not be undertaken to provide for large public attendance at the preliminary trials. The public will be given the opportunity of attending the final contest, when the champions of the seven main divisions will appear. Parts of the eliminating trials may be broadcast, thus adding to the interest of the event.

BELOW we give extracts from the letter of a Lower Hutt correspondent. Other communications from country districts show that the idea has caught on, and has inspired the development of local contests. It is certain that, on the evening of the final, listeners all over the country will have their list of words culled from the "Radio Record" before them, and keenly check up on the efforts of the contestants.

"I THINK your spelling idea is simply splendid," writes a Lower Hutt correspondent, "and already you've provided us with an amusing and interesting occupation for the evenings this winter. I wish you could have seen a party of us—half a dozen of either sex—enjoying ourselves with a good, old-fashioned spelling bee one night last week. There were roars of laughter when we caught three of the girls out on 'clandestine,' 'romantic,' and 'embraceable,' but they got one back on us when they handled the 'big book.' Two of us were caught out on 'alcoholic,' and 'one, metaphorically speaking, went down under 'inebriation.' When we got on to 'trick' words the fun was fast and furious.

"Anyway, the outcome of the evening was that we found the idea such a change that we've decided to have a couple more 'private sittings' before your great night, and there'll be a baker's dozen of us lining up before your judge when that comes round. And we'll be well primed, too, with words only, of course.

"Seriously, your competition is an excellent idea, and if others try out our 'spelling bee party' scheme they'll find it full of fun, and they'll be surprised, too, at what they will learn. Then they can line up against us 'Hutt Howlers' in August, and we'll give them a run for their money."

Details of Prizes and Outline of £100 Contest

24 Handsome Prizes Given.

1st Prize: Order for £50, to be spent on a Radio Set or apparatus from approved advertisers in the "Radio Record."

2nd Prize: Order for £20, to be spent in the purchase of electrical apparatus or equipment from approved advertisers.

3rd Prize: Order for £5 worth of radio or electrical apparatus.

TWENTY-ONE ORDERS for one guinea's worth of radio or electrical apparatus from approved "Record" advertisers. These orders will be given to the three place-winners in each of seven main sections, consisting of:—

- (1) University or college students. (2) Teachers and lawyers.
- (3) Secretaries and stenographers. (4) Pressmen and advertising men.
- (5) Professors, ministers and educationalists. (6) General section—men.
- (7) General section—women.

No. 2 List of Words

collaborator
confluence
conglutinate
connoisseur
consanguinity
convolvulus
curvilinear
cyclorama

defalcate
demisemiquaver
debilitate
decalitre
deciduous
decimation
decipherable
declension
decorous
decorator
dedicatorial
deductible
defeasance
defeasible
defecate
defectibility
defoliate
deforestation
degeneracy
dehydrate
deistically
deleterious
delineator
demurrage
demurrer
dengue
denominative
dentigerous
denudation
deodoriser
deponent
deposable
depository
derivate
derogatoriness
derringer
deshabille
deterrent
devitrify

dialectal
dietetics
dietary
digitalis
dirigible
disputative
driveller

ebullient
electrolysis
emanation
embellisher
embryologist
emeritus
emollescence
empiricism
empyrean
enamellist
encomium
entablature
enumerator
ephemeral
epicureanism
epigrammatist
episcopalianism
epistolary
eradicate
erasable
erysipelas
escheator
escutcheon
espallier
espionage
etherealisation
ethereally
ethicist
ethnologically
etiolation
etymologist
eucharistic
evanesce
exaggerator
exchangeability
excisable
exclusory
excescence
exculpatory
excusatory

execrable
executory
exemplary
exercisable
exhalable
exhaustible
exhibitory
exhortative
existent
exorcist
exoticism
expatiatory
expiatory
expletory
expository
expurgatorial
extemporaneous
extraditable
extraneous
extortioner
extenuatory
factorial
fallacious
fallibility
falsetto
fanfaronade
fatalistic
feasibility
fenestral
ferriferous
fertiliser
fiduciary
fiendish
figural
filamentary
financier
finality
flabbergast
flaccidity
flagellator
flamboyant
flannelette
flexibility
fluidity
focuses
follicular
forensic
fortuitousness

ENTRY FORM FOR "RADIO RECORD" SPELLING BEE.

(Closing date: July 19.)

FIRST PRIZE: Order for £50, and Valuable Supplementary Prizes.

(ENTRANCE FEE: 1/-.)

To "RADIO RECORD,"

P.O. Box 1032, Wellington;

Or Third Floor, "Dominion" Building,
Wakefield Street, Wellington.

Please receive my entry in Section..... (specifying No. of Section) for your Monster Spelling Bee. Entry fee of 1/- enclosed. I will abide by the rules laid down and accept all decisions of the Judge, Mr. J. Norrie, of the Wellington Public Library, as final.

NAME.....

ADDRESS.....

The New Zealand Radio Record

—AND—

Electric Home Journal

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX, 1032, WELLINGTON.

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RADIO PUBLISHING COMPANY OF NEW ZEALAND, LTD.,
P.O. Box 1032, WELLINGTON.

WELLINGTON, FRIDAY, JUNE 27, 1930.

THE FREQUENCY TESTS.

THE frequency tests that were carried out from 2YA on Saturday by the chief engineer of the Radio Broadcasting Company, Mr. J. M. Bingham, will certainly have appealed to listeners as being useful demonstrations of transmission and effective measuring-rods of the efficiency of speakers and sets. A test of a similar character was given almost two years ago, and the Hawke's Bay Radio Society rendered a useful service in asking for a repetition for the benefit of the number of new listeners who have since enrolled. Mr. Bingham was admirably concise in his matter. He explained briefly but intelligently the principles of sound as related to vibrations and, following up with demonstrations of the characteristic notes of certain musical instruments, rounded off a valuable exposition with the transmission of various frequencies. It was this phase of the test that had chief value for listeners. Few speakers and amplifiers indeed would prove capable of receiving all the notes transmitted from 50 cycles to 10,000. Some would be found to have a range of but from 200 cycles to 3600 cycles; below and above those ranges they interpreted nothing. While the tendency is always to improve speakers and add to their range, their effective limit is governed naturally enough by considerations of the market to be reached and the capacity of the prospective buyer. In this field as in all others quality must be paid for. It was therefore wise and timely for Mr. Bingham to give the warning that too much importance must not be attached to the test, for the reason that in practice many musical notes of the higher and even lower frequencies are but little used. For average purposes an average speaker will give reasonable service. It is, however, important and valuable for the listener to know the exact facts of his speaker's capacity so that he may not expect more from it than it is capable of giving; and, moreover, that he may know that some of the notes that are actually being produced by the singer and the musician and are being put on the air by the station are not coming through his speaker—owing to the range of the speaker itself. Armed with that knowledge the listener can determine his course of action.

If highly musical, he will seek finesse in interpretation and secure the best in speakers that his purse can afford. If content with an average performance he may rest assured that he is getting all his speaker can give him of what the station is putting out.

THE TEST MATCH.

LAST week we quoted the observation of the head of the National Broadcasting Company of the United States that the ideal news feature of radio was a sporting event planned a long way ahead with announcers on the field of action to give a running description of the play or contest. Those conditions were fulfilled with the staging of the first test match between Britain and New Zealand at Dunedin on Saturday. The historic ground at Carisbrook was packed to capacity with some 26,000 people, but in addition to that audience probably every loudspeaker within range of 4YA and 2YA had its audience of from two to 50 or more. The larger figure is by no means an exaggeration, for experience shows that on occasions of this nature the large-hearted hospitality of country set-owners is given play and invitations extended to "the district" to attend and listen-in. In country homesteads, therefore, right throughout the Dominion and many hundreds of miles from the scene of play radio secured audience for a thrilling description of a tense and stern struggle, packed with thrills as fortune surged to and fro on the field of play. And what a final thrill listeners got! With minutes only to go, how many listeners sat back as they realised the sternness of the defence and thought, "Oh, well, a draw it will be." But, no! Right on time came Ivor Jones's dramatic interception of a pass, came that 75-yard race up-field with the flying Morley in support, came the timely pass and victory with no further time for an equaliser. Dramatic indeed and radio conveyed the tenseness of the moment admirably.

With knowledge of the intensity of interest taken by listeners throughout the Dominion in the match, it is fitting that the opportunity should be taken to thank the New Zealand Rugby Union for the opportunity to broadcast. Listeners who enjoyed that broadcast may well judge how they would have regretted its absence. Further, if thrill be the life of sport, what a loss it would have been to Rugby for the Dominion at large to have missed that final drama and the realisation that Rugby can give to spectators so dramatic a change of fortune. The game gained much by Ivor Jones's last-minute brilliance and radio's portrayal of it.

Broadcast of English Radio Talks from 3YA Soccer Final

A Reversed Decision

AT the last meeting of the New Zealand Football Association the statement was made by Mr. F. Campbell, chairman of the association, that the playing of the English Cup final had not been broadcast by the British Broadcasting Corporation. Apparently Mr. Campbell's statement was based upon correspondence received from the English Football Association outlining the preliminary negotiations. As a matter of fact, an agreement was finally reached between the corporation and the association for the cup final to be broadcast, and it was broadcast, not only through the B.B.C. stations, but through short-wave station 5SW, being heard from the latter station in New Zealand. A Press Association message received in New Zealand at the time stated that the cup final had been played before upward of 90,000 people, and that the broadcast was particularly appreciated by the blind, especially by those who had lost their sight in the war but retained their interest in football.

FORTNIGHTLY talks to radio listeners—"hams," and others who want to learn more about the why and wherefore of the equipment in a radio receiving set—are to be given from 3YA by "Aerial," the radio editor of the Christchurch "Star." "Aerial" has been interested in radio since the "early days," and is as great an enthusiast as ever. He can be relied upon to make his broadcast as interesting as his notes and comments in the "Star," where the radio page is a feature.

Coastal Radio Beacons

TECHNICAL details have been completed for the immediate establishment of wireless beacons at 20 of the principal lighthouses on the Australian coast. With these in operation, no matter how dense might be a fog or how tempestuous the weather, no ship equipped with direction-finding equipment could go ashore through losing its way. The captain might do something foolish and wreck his ship, but the age-old causes of shipwreck—missing the course by reason of fog, rain, wind or currents—could no longer exist. Marine disasters would still be possible, but at any instant the captain could infallibly determine his position.

Mullard
THE MASTER VALVE

The only Valve with
the wonderful P.M.
Filament. Gives longer
life—more power—
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Plays on the Air

(To the Editor.)

Sir,—I read with interest the article in your edition of the 13th instant, contributed by "Call Up," anent "Seeing Radio from a New Angle." I was especially interested in Mr. J. M. Clark's views on the production of plays on the air, for Mr. Clark (an old friend of mine) is a gentleman of long experience, especially in elocutionary work of every kind.

I agree with much that he says as to the standard of plays on the air and the need for full rehearsals, etc., so that the presentations should not develop into mere "readings"—and often very indifferent readings at that. At the same time I am greatly surprised at some of the other comments and views expressed by Mr. Clark.

It appears from the article that he has held the view right along that three-act plays could be successfully presented over the air. Well, I held similar views, but there was this difference: I not only held those views, but I presented the plays, and it was not till I had presented something like 40 or more of them from 1YA (a number of these being three-act plays) that anybody else ventured into the field.

Then, when it was seen that the thing could be done, and that hundreds of listeners from all parts of the Dominion expressed pleasure and approval of our work. Others came forward, after two or three years, to try their hands—some good, some bad. With the possible exception of one attempt at 2YA (which was not repeated), the Auckland Comedy Players, under my direction, were the pioneers in this work of presenting plays on the air, and for a long time they were the only ones. Mr. Clark says he had the temerity to present a tragedy in blank verse some weeks ago (and I have no doubt it was excellently done), but actually I had the temerity to present a tragedy in blank verse ("Macbeth") two or three years ago (I haven't the exact date before me), and several three-act plays before that.

Altogether I have presented about 70 plays on the air from 1YA, and have introduced something like 60 different performers to the public, which is something of an achievement. All credit is due to Mr. Clark and others who present plays, if they do them adequately, but I think full credit should be given to those who led the way and showed that the thing could be done. Innumerable letters and personal congratulations from perfect strangers go to prove that our work has been appreciated.

I agree with Mr. Clark that radio plays should be clean, and that sex matters should be avoided. By all means let us keep the home circle untainted; but surely "Paolo and Francesca," for instance, deals almost entirely with matters unsuitable for the home circle. It is, in fact, the story of a handsome young man who makes passionate (and successful) love to his brother's wife out in the garden, and, again, if I remember, in her private room late at night; and just about here the outraged husband discovers their guilty secret, and (quite rightly, I should say) slays the pair of 'em out of hand. Surely this is not a suitable theme for the home circle and the children! Eile, Mr. Clark.

J. F. MONTAGUE.



Mr. LEON DE MAUNY, the prominent Wellington musician, who is taking part in the programme.
—Andrew, photo.

A CONCERT OF
OUTSTANDING
MERIT

A RELAY FROM 2YA

IN connection with the official opening of Nimmo's new music warehouse in Willis Street, Wellington, 2YA will broadcast the inaugural concert held in Nimmo's concert chamber on July 3.

The splendid programme which has been arranged will include instrumental, vocal and elocutionary items

by Madame Evelyn de Mauny, Madame Eugenie Dennis, Miss Ena Rapley, Miss Madge Freeman, Mr. Leon de Mauny, Mr. Edwin Dennis and Mr. Claude Tanner.

With such an array of talent, listeners to 2YA on July 3 are assured of a concert worthy of such a notable occasion in the musical world.

THE PROGRAMME:

1. "Trio" in D Minor (1st Movement), (Arensky) Mmc. Evelyn de Mauny, Mr. L. de Mauny, Mr. Claude Tanner
2. "Pipes of Pan" (Arcadians) Miss Ena Rapley, Soprano
3. "Au Pays" (A. Holmes) Mr. Edwin Dennis
4. "Cello Solo" (a) "Memoire" (Popper) Mr. Claude Tanner
(b) "Andaluzza" (Granados)
5. "Fisher Lad" (M. C. Day) Miss Madge Freeman, Contralto
6. Piano Solo, Selected Mmc. Evelyn de Mauny
7. Humorous Sketch—"The Way to Accept Him" Mme. Eugenie Dennis
8. "Sonata" in G (1st movement) (Greig) —Mme. Evelyn de Mauny.
9. "Like Stars Above" (Squire) Mr. L. de Mauny
10. "Sing, Joyous Bird" (Phillips)—Duet, Miss Ena Rapley, Miss M. Freeman

A Popular Combination Hawke's Bay Hospital

Mr. Bishop and The
Melodie Four

Installation of Radio

THE hatchet has been buried! Mr. Bishop and the Melodie Four, artists known to all listeners of 2YA, have agreed to combine, at least temporarily, in "The Eight O'clock Review." Mr. Bishop, about whom a personal note appears on another page, entertains listeners every Saturday night with light humour. Many of his favourite jokes are directed against the Melodie Four, who usually retaliate rigorously.

These productions are the outcome of the undoubted success which attended the united efforts of these artists when they produced their evening at an old-time music hall for the benefit of "Little Daisy Dewdrop" some months ago, and we feel sure that the many listeners who wrote letters of appreciation regarding this previous broadcast will welcome this announcement.

The company presenting these revues will be strengthened by the inclusion of Miss Elsie Croft and Miss Doris Clarke, and a number of novel features are being planned, among which will be a prize competition in connection with which cash prizes will be offered by the "Radio Record."

We feel sure that this burying of the hatchet will be attended by the happiest results.

THE Napier Radio Society has for some time past been working actively to install radio in the Napier Hospital. Through the generosity of various donors, the society has now installed a fine modern receiver and equipped the children's ward with three loudspeakers. This installation has been proved to be an unqualified success. The society is still conducting a campaign to raise a total sum of £800 for the equipment of the entire hospital.

A handsome donation received toward this end was from Lady McLean, who has forwarded a donation of £100 to the society for the installation of receivers in the Margaret ward of the hospital. This donation has been made with the object of assisting in the preservation of the memory of the late Sir Douglas McLean. In addition to that sum, a cheque for £25 has been received from Miss Fanny Ormond. Further donations are earnestly desired by the society, and contributors may forward remittances to the secretary of the society, Mr. Tyler, care of Messrs. D. S. Laing and Son, Napier.

So Goes the Story

THE imagination of sensationalists is always ready to start a "story," and everyone ready to believe them. Someone saw the chance of a rare joke last week when he put in circulation the story that 2YA had broadcast the news that Kilminster, the dirt-track rider, had been killed in a smash. The story spread with amazing rapidity, and 2YA was besieged with inquiries to find out if this was true. Nothing of the kind was broadcast from the station, for every piece of news is carefully filtered before it goes on the air.

"Look for the Silver
Lining —"

The Optimists from 2YA

LISTENERS who heard the recent programme presented by the Wellington Optimists' Club will be pleased to learn that on June 28 the "Optimists" will again entertain. On this occasion the evening will be devoted to numbers for the "Old Folks at Home."

This club, which was formed only recently, consists of a number of cheery business men who are endeavouring, and not in vain, to make everyone with whom they come in contact look on the brighter side of life. Once a week they meet at luncheon, and sing choruses and popular songs, and regularly they may be found visiting hospitals and sanatoriums, cheering the inmates with their brightness and optimism.

The First Test

A Relay of Surprises

A RELAY around which a great deal of interest was centred was that from Dunedin on Saturday last, when the description of the first Test match was broadcast. Unfortunately an electric storm had interfered with the telephone lines between Dunedin and

British Rugby Matches

THE remaining matches of the British tour scheduled for broadcasting are:—

July 5.—Second Test, at Christchurch (3YA and 2YA).

July 9.—v. Maoris, at Wellington (2YA).

July 19.—v. Auckland, at Auckland (1YA).

July 26.—Third Test, at Auckland (1YA and 2YA).

August 9.—Fourth Test, at Wellington (2YA).

Christchurch, and shortly before the time for the relay, prospects were looking doubtful. Persistence on the part of the P. and T. Department, however, cleared a line well enough to allow a relay. This accounted for the background of noise—but noise or quiet the relay was a decided success as far as Rugby enthusiasts were concerned. The enthusiasm of the last few moments will be remembered by those who listened in.

With GRAMOPHONE and RADIO

BY "B NATURAL"

THE MUSIC OF THE WEEK

IN view of the forthcoming Maori night from 2YA it is of interest to review the new Maori recordings of the Rotorua Maori Choir produced by Columbia in Sydney.

D.O.53, "Haere, haere, ra e hine" (Hinemoa Poi Song).—This is one of the well-known Maori melodies sung by the full choir. The fullness and roundness that characterises Maori melodies is fully evident. On the reverse, "Hoea Ra Te Waka" (Canoe Poi Song), another swinging melody with plenty of colour.

D.O.62, "Hine E Hine," soprano solo by Te Mauri Mahaoe.—The soloist has a rare voice, full, clear and round. The air is one of pathos and is admirably suited to the voice of the soloist. She is accompanied only by a piano. The selection abounds in quiet pathetic passages. On the reverse the same soloist sings "Wairangi" ("May I Not Love"). This is a different air, less plaintive and brighter.

D.O.63, "He Moke Moke" ("My Lover is Far Away"), by the Choir.—A slow plaintive air full of melody—a soprano accompanied with a choir. On the reverse is "Po Atarau" ("Song of Farewell").

D.O. 64, "Au E Ihu" ("Jesu, Lover of My Soul"), another colourful chorus. "Wairangi" on the reverse has a bright swinging air.

D.O.54, "Pokarekare" (Maori love ditty) needs little introduction. It is one of the best loved ditties, and this performance by the choir with soprano soloist is one of the best. The enunciation of the soloist is beautifully clear.

"Te Taniwa." Introduced by the full tones of the soprano, the choir joins in and the melody builds up to full strength. Throughout, the delicate notes of the soloist soar in contrast to the rousing choir.

D.O.51, "E Para Ra" ("Warrior's Departure").—This is one of the Maori songs that are very well known. A soprano leads, and her rich voice rises above the choir as though exhorting them to great efforts. This is the composition of Sir Apirana Ngata. "Haere Tonu"—bass and choir. The bass has an unusual voice, but typical of the Maori. He puts real vim into his song.

D.O.65, "Take Turangi Ake" (Maori Chant).—Here the choir in full strength introduces the chant, which is taken up in a higher strain by a solo soprano. Another chant follows. In low strong tones a contralto introduces the theme and this is caught up by the choir singing low to preserve the atmosphere of the chant.

"Te Arawa" ("Arise the Arawas"). An inspiring melody by choir with a soprano soloist. Starting off in soft tones, the air works up to a strong finale.

"Il Trovatore"

THIS well-known Verdi opera will be presented from 4YA next week. In another section of this issue will be found the story of the opera, but the story of the airs reviewed here are told briefly for the sake of continuity.

"Tacea la notte placida" (How Peaceful was the Night). Leonora tells her companion, Inez, of the gallant troubadour who attracted her attention during the tourney. This unknown lover every night sings sweet songs beneath her window, and she confesses that his tender serenading

has opened her heart to him, and that she knows she loves him.

Recorded on Columbia 04085 by Arangi-Lombardi (soprano) with orchestra. The air is one of delight and ecstasy, and is well-rendered by this powerful soprano.

On H.M.V. DB813 Galli-Curci interprets the same air as differently from Lombardi. The pitch and tenderness of this soloist's voice faithfully interpret the lightness and sheer delight of Leonora.

The next well-known excerpt is the "Anvil Chorus," descriptive of the Gypsies in their native mountains singing while they forge their weapons.

On Columbia 01032, it is recorded by the la Scala chorus of Milan. This swinging chorus, sung in Italian, com-

tion a great amount of colour and contrast.

WE now come to one of the most touching airs of the opera and one that is widely known—the "Miserere" (I Have Sighed to Rest Me). Manrico lies on his prison floor, hoping to sleep and forget his sad plight. The prison bell tolls and the priests are heard praying for the soul of the condemned man. Leonora, horrified at the preparations for the execution of her lover, cries to him words of hope and love.

It is sung in English by Gertrude Johnson and William Heseltine, on Columbia 9168. The supporting chorus depicts the priests chanting; they are interrogated by Leonora and Manrico,

"Il Trovatore" from 4YA

The Next Grand Opera which is to be produced at 4YA under the direction of Mr. A. Walmsley (late of the Carl Rosa Opera Company, England) will be "Il Trovatore" (Verdi). The story of the Opera will be told by Mr. Walmsley.

The Cast:

Leonora.....Mrs. Eric Ewart, L.A.B.
Inez.....Miss Betty Hamilton
Azucena.....Miss M. Vickers, L.A.B.
Manrico.....Mr. A. Walmsley
Count de Luna Ferrando....Mr. W. Ruffell

mences quietly and gradually works up to a pitch and bursts into the familiar air. At intervals the cymbals clang, conveying the sound of the irons on the anvil.

It is sung in English by the Grand Opera Company on H.M.V. E103—a good recording.

WE now rejoin the opera in the dramatic act five. Manrico has been defeated and taken captive, and is now closely guarded in a prison tower. Leonora finds her way to him, and, standing under the walls, sings the melodious air, "Love, Fly on Rosy Pinions." She begs love to fly with rosy wings and comfort her lover in his prison cell.

On H.M.V. DB813 (the reverse of "How Peaceful is the Night") it is sung by Galli-Curci. The wide range of this artist's voice is heard to advantage in this melody.

On Columbia 04085 it is recorded by Lombardi. The very powerful voice of Lombardi gives to this interpreta-

tion a great amount of colour and contrast. The record opens with the hopeless tolling of the prison bell and the imitation of the priests chanting. Then the air changes and the silvery notes of the cornet triumph. It is Leonora crying words of love and hope.

Caruso and Alda make a splendid record on H.M.V. D.K. 119. They are accompanied by chorus and orchestra. This is a great combination, and there can be no mistaking the atmosphere created.

THE reverse of this record leads up to the well-known "Home to Our Mountains." Mother and son sing this beautiful duet. The fierce and revengeful old gypsy in her hour of death thinks of the mountains where she has brought up Manrico. She would fain fly back to that peaceful retreat. In this record Schumann-Helms, contralto, joins with Caruso as Azucena. The entreating tones of the gypsy mother are well translated, as is the impossibility of the project. The air

ends in utter resignation to the fate of Manrico.

Columbia presents it on the reverse of 9168 with Mary Ogden, contralto, and Heseltine. As before, this is in English. Both artists have delightful voices; the contralto is particularly pleasing.

Another H.M.V. version of the "Miserere" is found on C 1692 by Mavis Bennett and John Turner. In English with orchestra and chorus the record, although popularly priced, is one of the newer recordings, and is really fine. The orchestration is good, and being electrically recorded preserves much of the colour that was impossible in the other recordings. On the reverse the Grand Opera Company provide vocal selections. They open with the rousing Soldiers' Chorus, and follow with the better-known excerpts. These are well chosen, and are arranged to provide plenty of contrast. It is a pleasing record, and can be recommended for those who do not desire the full airs provided on the separate records. The record closes with the Anvil Chorus splendidly rendered.

Selections by Creators' Band are recorded on H.M.V. E.B.17. This is altogether a vigorous record splendidly recorded. It is bright and colourful with contrast from full orchestral effects to instrumental solos. The final passages from "Home to our Mountains" is so vigorous that only a good pick-up will stay on the track.

Columbia records two selections. On 3925 by the Grenadier Guards Band and on 9185 by the B.B.C. Symphony Orchestra.

The former is a bright record in which the best-known airs are found. The recording of the B.B.C. orchestra is of particular interest to radio enthusiasts, for the orchestra which broadcasts regularly is recognised as one of the best of the day, and recently it has made several records for Columbia. The second part, opening with the Anvil chorus, is very rich in bass, though it is well balanced with the cornets, one of which plays the Miserere solo. The record ends in a series of vigorous passages from the Home to Our Mountains.

SEVERAL of the recordings have music other than that of "Il Trovatore" on their reverses. These are: Columbia 264, "Flight of Ages" (Bevan). A pleasing cornet solo well played. H.M.V. E.103, the Petrograd Quartet singing the Volga Boat Song in Russian. This well-known air has been presented in many ways, but this is one that is sure to please. The quartet provide an excellent rendering. The rousing Soldiers' Chorus from "Faust," sung by the La Scala Chorus of Milan on Columbia 01032 is a well-presented air. It goes with a swing from the first note. This is a particularly fine combination of vocalists, and the supporting orchestra is particularly fine.

Old Musical Comedy Gems

THIS is a record that will appeal to the older generation, containing as it does some of the airs that have not been heard for many years. "Keep off the Grass," "Come to the Ball," "Try Again, Jonny," "Dear Little Ginglees," "A Quaker Girl," and "My Own Little Girl," are included. The record, made by Jack Hylton and his orchestra with vocal refrain, is H.M.V. C.1773. It is strong and bright and goes with a swing.

Stokowski---Conductor of Philadelphia Symphony Orchestra



concert is not a tea party." You can't run in late, sip something, gossip a bit, and go out when you feel like it. Not if Leopold Stokowski wields the baton. Late-comers are given two minutes' grace, the concert begins, and those outside cool their heels in the lobby till the symphony is over.

Some protest against this, but Mr. Stokowski, likewise Mr. Toscanini, are adamant.

This and other characteristics of the Philadelphia Orchestra's leader is due to his "high voltage," explains Virgilia Peterson Ross in "The Outlook and Independent" (New York). This is his portrait:

"Leopold Stokowski is forty-two.

"He has a taut, mettlesome figure.

"His face is complicated by the pointed mockery of a faun and the sharp moulding of an intellectual.

"He never wears a hat. But he chooses his clothes with care.

"Form is his fetish. And a naked, dramatic simplicity."

Of Polish descent, Stokowski grew up in England, studied piano and violin as a child, but turned to science at the age of sixteen; Oxford gave him its degree. Then music won him back again. He played the organ in the church of St. James, Piccadilly, and came to America in 1906, and played the organ in St. Bartholomew's, New York. Now his orchestral concerts expose the "standing-room only" sign.

"Stokowski feels that there is too much talk, that talk stimulates too little action, in America." Also:

"Against the vitality and the passionate quest to learn flows the tide of a terrible wastage. America, with Russia, Germany, and China, is the source from which the future will draw its life heat.

"But for wisdom, he himself turns to the Orient. He feels that India has a psychic power which far exceeds our grasp. He is, in a sense, a mystic.

"He has no creed. He has no palpable religion to spread before other men. Yet he has found a power of inner inspiration which defies analysis.

"In 1912, after conducting the Cincinnati Symphony Orchestra, Stokowski took the leadership in Philadelphia. By this time he had reached ripened power. Hours of strain lay before him. But his material had great scope. He could give his orchestra 'imperialistic guidance' with a sure knowledge of triumph.

"The musicians' union allows two and a half hours of practise five times a week. The sum of each man's energy goes into these rehearsals.

"Stokowski demands perfection from every player. He can make his violins play trills in entire unison.

"He will interrupt the practise of a concerto to say that the fourth violin played B flat instead of B sharp. He often compels a man to repeat his part separately. This habit caused a break with Mischa Mischakoff, the concert-master, last spring. Stokowski had asked him, in rehearsal, to play his score alone. Mr. Mischakoff claimed that Stokowski was 'rude and unfair.' He left the orchestra. It is generally felt, however, that Stokowski makes a just taskmaster.

"He rides his men with a light hand as long as they give him full measure."

Philadelphia clergymen objected to Sunday concerts, but Stokowski continued them because some people could come on no other day. He frequently gives concerts for children, and then becomes something of a showman as well.

"At one of these, he sent for a circus of baby animals trained by a friend.

"When all the children were seated he told them that he was keeping an elephant outside. 'You do not believe me?' he asked. 'Or perhaps you do not want to see an elephant?' Some of them called to bring him out. The conductor went backstage and reappeared leading a very young elephant by the ear.

ment. The critics find him a juicy morsel.

"He has been called the Babe Ruth, the Jackie Coogan, the sublimated Barnum of orchestra leaders.

"He himself says that he is only an agent of transmission, a sieve through which to pass the liquid notes. He says that he does not want his personality to count. Yet many people feel that he is too luminously present. For them, his egotism and his sense of drama rob him of a certain integrity.

"Most of all, perhaps, he is criticised for playing modern music.

"He won it a place on Philadelphia programmes. 'People who object to modern music are using only one side of the brain,' he has said. 'Don't resist or deride the beautiful of either



STOKOWSKI.

concerts. These are the discoveries which provoke a din of controversy.

"People guffaw and hiss. Critics wallow in acid mockery. Much of his audience cannot understand."

The future of music, so Stokowski thinks, lies in electricity:

"This is the key to mighty changes.

"It will in time enable musicians to use a quarter-tone or the fraction of a quarter-tone. Since the end of the seventeenth century half-tones have been used on the piano. These tones are purely arbitrary. Now, with new knowledge of electricity, it will be possible to drop artifice and to approach the intervals of nature.

"Theremin and Martenot have already shown the way. In the last concert of this season, Stokowski had an instrument, invented by Professor Theremin, called the Thereminophone, which tripled the volume of tone in the

(Concluded on page 10.)

LEOPOLD STOKOWSKI, the famous conductor of the Philadelphia

Symphony Orchestra, is evidently of the opinion that the conductor of the future, if he is to adapt himself to broadcasting requirements, must be familiar with the technical side of transmission! He is taking a three-months' course of wireless engineering with a view to advising on the broadcasting of large orchestras. He hopes that this will lead to a vast improvement in the technique of concert broadcasts.

Mr. Stokowski's scheme is a thoroughly sound one, but is by no means original, for the British Broadcasting Corporation have for some years employed trained musicians to maintain a close liaison between the engineering and music departments.

"The children bellowed with delight.

"One of the musicians rushed to the platform and told Stokowski that there were crowds of elephants outside trying to come in. Three more trotted to the scene. Stokowski and the musician stood at the door pushing back the imaginary hordes beyond. By this time the children were in a fever of curiosity. The conductor then took up his baton and played the 'Carnaval des Animaux' by Saint-Saens. His little audience will probably not forget it."

He tries other stunts on his adult audiences:

"Stokowski has carried his love of experiment to the concert stage itself.

"He re-seated his orchestra. He tried a military band. He brought in the colour organ, but soon put it by. He often conducts without a score, and he played once in total darkness except for a light about his head. This plan (he found) was not feasible.

"But he still dreams of a hidden orchestra where the eye would subserve the ear.

"For quiet, he has ruled that the doors are closed during concerts. He allows late-comers two minutes' grace. If they exceed two minutes, they must wait outside for the intermission. 'A concert is not a tea party,' he said.

"Once, in the middle of playing, he left the platform because of the noise. He put on his coat and decided to go away for good. The manager persuaded him to stay. After five minutes he returned to a hushed, repentant house.

"His experiments have brought Stokowski into the glare of public com-

the old or new age.' He keeps agents digging for new gems in various cities the world over.

"They send him about a thousand pieces a year, from which he chooses some thirty to try with the orchestra. Three compositions finally emerge for

Designed for RADIO - GRAMOPHONE WORK

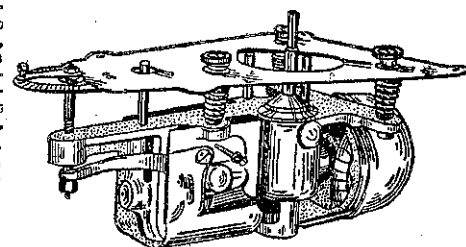
THE DIEHL Electric Gramophone motor is of the single phase, squirrel cage, induction type, which knows no equal in a radio gramophone. It is simply yet ruggedly constructed, and quiet and dependable in operation.

There are no cut outs, automatic switches or armature windings, with commutator or brushes, which cause radio interference by sparking, in the Diehl.

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ELECTRIC GRAMOPHONE MOTOR

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The above illustration shows the excellence of the Diehl. All the steel parts are heavily nickel plated to prevent rust, and by cutting a triangular hole in the mounting board, placing the mounting plate in position and fastening four screws, the Diehl is installed and ready for long and consistent service.

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AUCKLAND New Zealand Agents

Buenos Aires Stations in A Lightweight Radio Trouble

OWING to mutual interference, the twenty-two broadcasting stations in Buenos Aires have been ordered to remove their quarters from the city within nine months. The power used by these transmitters varies from 100 to 5000 watts, several being private telephony stations, but the Government has decided that all must fall under the same ban if peace is to be restored. The Argentine is yet another in the long list of countries which are discovering that broadcasting stations are best situated away from large centres of population.

THE pilots of an American air transport company are now using a combination receiving and sending head set which is made as a part of the helmet. It weighs one pound and enables pilots to communicate with ground stations 200 miles distant or with other planes in flight.

A tightly-fitting piece of sponge rubber in the ear is connected with two wires which are plugged into the cockpit, and over this radio system the pilot receives a weather report of conditions just ahead at intervals of ten minutes.

Stokowski

(Concluded from page 9.)

bass, making the Bach "Fugue" reverberate like a peal of celestial thunder. "Stokowski looks ahead to indescribable changes. In these he perhaps sees his destiny. He prophesies them from intuition. He can not say fully how they will transpire. But he upholds them with zeal and aplomb.

"The conductor of the Philadelphia Orchestra may like his place beneath the sun. He may enjoy his gift of grace. He undoubtedly knew what he was doing when he let his hair, once sleekly cropped, flower about his head.

"Undoubtedly, too, he is aware that his experiments make a dramatic display. But his gestures are not mean. His science is no bribe for favour. He plumbs the depths of physical and mental effort. He has a clean, swift passion for his work.

"And however much he relishes glamour or condescends to the fashion for fame, Stokowski is quick with the high fire of his art.

"For years he refused to broadcast. The receivers were as yet too crude. The tutti almost overloaded the wires.

"A man knowing nothing of music, sat by a dial and regulated the accents of sound according to his own whim. If he felt that there was too much noise, he diminished it. If, on the contrary, he longed for bigger and better vibrations, he increased them.

"This did not fall in with Stokowski's plans. He studied the technique of broadcasting. Last October, when he gave his first concert over the radio, he directed both his musicians and the man at the dial with his baton. Hooked up to fifty-two stations, he reached all over the United States, into Canada, and into Mexico.

"At last he approached the fulfilment of his dream. He could diffuse his music among millions, himself and his orchestra unseen, and perhaps a velvet darkness enveloping his hearers in the vast world of sound."

Here and There

TWO-WAY television, in conjunction with ordinary telephones, was demonstrated recently in New York. The conversation was made possible by the use of the "iconophone," and was carried on as though the person at the other end of the wire were in the same room. The speakers were able to see and hear each other as if they were conducting a conversation with someone at an open window 10 or 12 feet away, though the actual separation was about three miles. Dr. Frank Jewett, president of the Bell Telephone Laboratories, explained that the system employed was not yet commercially feasible.

A GLIDER was recently towed across the American Continent by an aeroplane, arriving safely at New York in less than forty hours' flying time. Included in the glider's equipment was a radio transmitter and receiver for maintaining communication with radio air beacons.

ANOTHER interesting stage in wireless picture transmission was reached recently, when a short-wave Californian station successfully transmitted the entire front page of a newspaper to a receiver in Schenectady, New York.

A NEW York motor dealer has hit upon the happy scheme of giving away a wireless set with every second-hand car sold. It is stated that since he instituted the custom, he has never received any complaints about the sets.

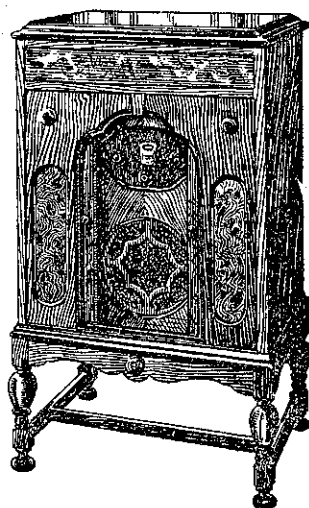
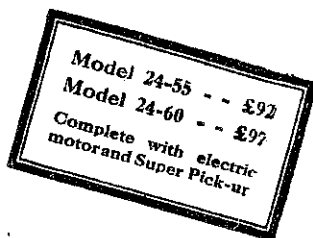
AS an experiment, a Detroit dairy company recently installed modern radio equipment in the cow barns, and found that the milk herd appreciated the music. Since the advent of the radio, dairymen keeping close tabulation found that milk production has increased considerably, the company attributing the increase to the music alone.

RADIO-EQUIPPED balloons that automatically report atmospheric conditions encountered in free flights have recently been tested out in Russia and France. The French device sends out radio signals at regular intervals showing barometric pressure and temperature encountered by the balloon. These are received both as audible signals and by a recording pen. In this instrument a make-and-break device is used to indicate barometer and thermometer readings by the duration of the signals. A radio pilot balloon, developed by the United States Signal Corps, has proved a success when used for indicating the speed and direction of the upper winds. A small radio transmitter is sent aloft attached to three hydrogen-filled balloons. At various ground stations the direction from which signals come is determined by apparatus such as is used with the radio compass, and reported to a central point where the movements are worked out and plotted.

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Dr. Kidson

Concludes his Discussion on

The Climate of Wireless



Our last issue Dr. Kidson, Government meteorologist, discussed atmospheric electricity and thunderstorms. This week he goes on to talk about Radio and Atmospherics.

THE ionisation in the lower atmosphere and the fine weather field are not sufficient under normal circumstances to have a very serious influence on the propagation of wireless waves, though, no doubt, they cause some attenuation. Consequently, the direct ray is the most reliable in its travel. It is less attenuated over the sea than over the land, and over smooth than rough surfaces generally. It is not very strongly affected by conditions of light or dark along its path. Short waves are more attenuated than long waves. Owing to these facts, the direct wave is used for broadcasting and for shipping, especially S.O.S. work.

The indirect ray travels to the upper conducting layers where, in the case of long-wave transmission, it is reflected downward again, and, in the case of short waves, through a process of continuously increasing refractions, it is bent downward. The beacon of the wireless aerial thus becomes visible to the eye of the wireless receiver in the case of short waves in a sort of mirage.

The descending wave will obviously combine with the direct wave and interference and resonance effects will be produced. Thus, there will be a zone at a certain distance from the aerial at which audibility will be at a minimum or fading will take place. At some further distance abnormally strong signals will be heard. The service area for broadcasting stations is that in which the direct ray is overwhelmingly stronger than the indirect so that it cannot be seriously weakened by interference.

Since the service area is limited owing to attenuation, fading, and other effects, it is necessary to use the indirect ray for the greater part of the world's wireless communications. By methods developed by Appleton and others the interference between direct and indirect ray has been efficiently demonstrated and it has been possible to calculate the height from which the rays have been reflected or refracted. Long waves are reflected from a height of about 75 km. The shorter waves penetrate for some distance into the conducting medium before finally being bent back, so that at night they reach about 100 km. As Watson-Watt puts it, for the short waves the upper layers are a cloudy prism and for the long waves a dirty mirror. So cloudy is the prism in daylight that the short waves are so strongly absorbed that in broadcasting they become inaudible. The waves of the broadcast band require a concentration of 100,000 electrons per cubic centimetre to bend them back,

and this concentration is found at night, usually at 100 km.

Solar radiation increases the ionic concentration in the upper atmosphere. Thus, in daylight the region of reflection or refraction is lowered. But also there are irregularities in the ionisation owing to the varying condition of the atmosphere. Consequently, there will be variations in fading phenomena. Furthermore, the increased ionisation will lead to increased absorption of short waves with consequent weaken-

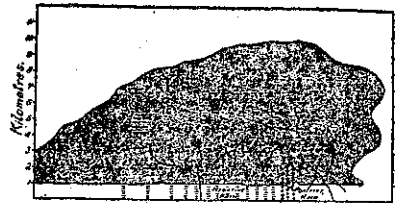


Diagram of a thunderstorm—electrical conditions.

ing of signal strength though the long waves will be more sharply reflected and their transmission favoured.

Not only are there marked effects due to the daily illumination of the atmosphere, but the influence of the eleven-year period in solar activity, which is so clearly brought out by the number of sunspots, can also be traced. Even the disturbances sometimes associated with individual sunspots have their effects. The apparent effect of the sunspot cycle is to produce a marked intensification of the ionisation.

Atmospheric Conditions.

THE conditions in the upper atmosphere will depend not only on ionizing radiations, but on factors more directly connected with the weather. Temperature changes, for instance, will have an appreciable effect since they will influence the rate of production and re-combination of ions. The reflecting layer may be lower over a cyclone than over an anti-cyclone, and so on. Currents from Polar regions may bring a lower reflecting layer and those from equatorial regions a higher one, or vice versa.

In this connection it is interesting to note that there is more ozone above polar than above equatorial regions, and when the surface air currents over New Zealand are from the South, there is more ozone overhead than when they are from the North. This would seem to suggest that the movements at very high levels are similar to those at the surface, since it is known that the average height of the ozone in the atmosphere is 50 km.

It is probable that by the use of different wave-lengths it will be possible to explore the higher levels of the atmosphere and plot the degree of ionization in various parts. The information thus obtained would be of the utmost theoretical importance in many branches of geophysics.

It has been stated that atmospherics are almost certainly due to thunder-

storms. They are more prominent on long wave-lengths than on short, in summer than in winter, in low latitudes than in high, on land than at sea. All these characteristics would fit in with the idea of a thunderstorm origin. Thunderstorms are more frequent in low than in high latitudes, and on land than on sea. There is a maximum of intensity of atmospherics throughout the year at night-time. A second maximum, prominent only in summer, occurs in the afternoon. The principal minima occur round 10 a.m.

The time of each of these maxima and minima varies throughout the year according to the time of sunrise and sunset, the morning phenomena being earlier in summer and the evening ones later. These characteristics are not confined to any one region. Atmospherics may produce disturbance in ordinary receivers at distances up to 4000 miles. Many atmospherics have been traced to the neighbourhood of thunderstorms, and many more to regions where conditions were favourable for thunderstorms, though none had been reported. The wave form of atmospherics is in agreement with the quantitative evidence found by C. T. R. Wilson regarding the field changes associated with lightning flashes.

The number of atmospherics heard accords well with the estimated number of lightning flashes as based on meteorological reports. The great majority of atmospherics come from considerable or great distances, and so can scarcely emanate from smaller local meteorological disturbances.

The Influence of Weather on Reception.

AMONGST other connections between wireless and the weather, the explanations of which are very imperfectly known, are the following:—Austin has shown that long-wave signals over distances of about 300km. are weak when the air temperature along their path is high. This is possibly an effect on the direct ray, and may be connected with variations in the state of ionisation in the surface layers, due to variations in the nature of the condensation centres in the atmosphere, many of which are heavy ions. It may be mentioned that over cities the number of these centres is frequently over

100,000, though in pure air it is very much reduced.

Sir Henry Jackson stated that the sirocco, a hot, humid wind blowing from Africa over the Mediterranean, and laden with salt and dust particles, reduced the strength of signals. He also found that signal strength decreased prior to the occurrence of atmospherics associated with thunderstorms.

It has been shown that signals are affected by those surfaces of discontinuity in the atmosphere called fronts, where cold air is under-running warm and where most of our rain is produced. It was found that—(1) surfaces of discontinuity between sender and receiver diminished the received energy, while (2) surfaces of discontinuity over the sender increased the received energy.

Duckert found that every warm mass of air passing over the receiving station impairs reception for considerable periods. The effect has certain relationships with the distribution of humidity, and is greater on short than long waves. Deflection effects in radio-direction finding have been traced to the effect of fronts between sender and receiver. Duckert refers these effects to lateral deflections produced in the lowest layers of the atmosphere.

The effects described are produced in the general air mass, and are not due to the effects of local conditions on the transmitting antennae. These have

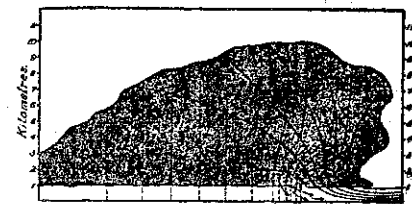


Diagram of a thunderstorm—meteorological conditions.

been proved to be very small. In cases of glazed frost, when ice is deposited on all objects, and in a few other exceptional cases, trouble may arise. But generally speaking, it has been shown that the effects of weather on the signal as it leaves the transmitting aerial are slight.

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News and Views

A NEW development of interest to every radio enthusiast is the perfection of an A.C.-operated valve that is entirely free from hum. It is rumoured that these will be available shortly.

LISTENERS in Doncaster, England, are complaining of a new form of interference to broadcast reception, caused by automatic traffic signals. The regularity of the "clicks" is said to intensify the irritation. This type of interference is not unknown in New Zealand.

THE Radio Commission which has been investigating broadcasting conditions in Canada recommends that the cost of an annual radio license be increased from 1 dollar to 4 dollars, to be collected by the dealer who sold the set.

A NEW departure in the policy of the Ontario Government has been the installing of a microphone in the Legislative Chambers of the Parliament Buildings at Toronto. It is intended to broadcast the majority of speeches made during the Parliamentary sessions.

MICROPHONES connected to special amplifiers are being used by the American Coastal Survey Department as a means of taking soundings at sea. Curiously enough, it has been found that the greatest drawback to this method is the fact that the noise made by oysters when opening and closing their shells seriously interferes with the reception of pre-arranged submarine signals! Any decrease of sensitivity in the instruments used would, however, impair the usefulness of the apparatus.

Children's Sessions

From 1YA.

TUESDAY—

Uncle Dave on the spot with many interesting tales to tell, Cousin Jean singing, and Cousin Betty playing the piano. Oh, and don't forget to listen to the "Bird Wedding" puzzle that Uncle Dave and Cinderella have for this evening.

WEDNESDAY—

Cheer germs from Uncle Tom, as well as stories and songs. Cousin Elva will be heard for the first time in some sweet songs.

THURSDAY—

Once again Miss Sale is bringing a talented little band of performers to make the hour bright with solos, duets, and recitations. Peter Pan in charge.

FRIDAY—

Nod and Aunt Jean have a treat this evening—the Girl Citizens are presenting the programme, and we hope to have a few words from Tuki Kimura San too.

SATURDAY—

Gather round and hear what Cinderella has for the Happy Hour, and listen to Cousin Dorothy's recitations and another Dorothy's piano solos.

SUNDAY—

Children's Song Service conducted by Uncle Leo, assisted by Beresford Street Sunday School.

From 3YA.

MONDAY—

Here we have "Scatterjoy" and the girls, in happy mood, gathered about the microphone. With tales about "Binkie" the Bantam, our mascot for Mondays.

WEDNESDAY—

Heigh-ho, and we are off to the Radio Exhibition at the Art Gallery this evening. Scatterjoy, Peterkin, Uncle John, and the Girls and

Boys. Off for a trip in the good ship "Nautilus"—everybody on board, and music provided by our friends, "The Orchestra" from the Ferry Road Convent. Songs by Lidda Grenell and others. Piano solos by Marjorie Alexander. Fun and frolic for all.

THURSDAY—

Off we go to the Radio Exhibition again—this time with Ladybird and Uncle Frank, who have songs and stories for all. We are having, too, a little play, "The Fairy's Riddle," with the Fairy Queen,



Miss Malona Juriss, who gave three elocutionary items from 4YA on Monday, June 23.

—Crown Studios.

Grig, and Evelyn. Little Neville Burnell visits the Market, and tells about it, and Cousin Jeffrey sings for us.

FRIDAY—

Aunt Pat and Chuckle, off to "The Wedding of the Painted Doll," given by Miss Iris Edmonds's pupils, and also to see "Fanchette from Paris," a little play with songs and all, given by Mrs. Frye's pupils. Listen for the Golliwogs, the Rag Dolls, the Chinese Doll, Teddy Bear, Sarah Ann, and all the others. A topping time for all who listen-in to-night.

SATURDAY—

Uncle Charlie, with a group of his singing and musical lads, are entertaining you all this evening. So we are all at the Radio Exhibition again, and Aunt Pat, with Three Little Fairies, sings "The Fairy Song," while Birdman tells of his feathered friends. Then Alice sings our Good-night song for all at the exhibition, and all who listen-in from far and near.

SUNDAY—

"The Children's Song Service," conducted by Rev. Rugby Pratt, assisted by the children from the Methodist Sunday School.

Of Topical Interest

(By "Switch.")

THE writer read with much interest Mr. J. M. Bingham's article on "The Phenomenon of Fading and Its Relation to Distortion," published recently in the "Record." Many listeners must have observed how curious is the incidence of fading. On some evenings certain distant stations fade badly, while others suffer only slightly. Take 2BL and 2FC, the two Sydney stations, as an example. Perhaps 2BL has a severe attack of fading, while 2FC is fairly steady. On other evenings the position is reversed. Then, some of the stations on the shorter wavelengths display the same vagaries, although their cycles of fading are generally much briefer than, say, 2FC, Sydney.

A LISTENER, whose experience should have guided him better, sagely informed "Switch" recently that 2FC and 2BL employed the same power as 2YA, Wellington. Although those two Sydney stations are rated at 5000 watts, the system of rating power is different in Australia to that in New Zealand. In Australia and England the power of a station is taken as the amount of energy in the last amplifier in the transmitter, while in America, Germany and New Zealand the amount of actual energy in the aerial is taken as the power of the station. While 2BL and 2FC are rated as 5000-watt stations, the amount of energy finally sent out from the radiating aerial for reception may not be as much as 1½ kilowatts.

THE Japanese station, JOHK, Sandai, was coming in with remarkable volume on a recent evening when "Switch" had as a visitor, Mr. K. Kubota, the newly-arrived Trade Commissioner for the Imperial Japanese Government. Mr. Kubota was astonished at hearing the Japanese station so loudly and clearly, and could scarcely believe it was about 5500 miles distant. He listened to the Japanese announcer, and then interpreted his words, which were to the effect that the concert was being given by a class of juveniles from the local primary school. School choruses (Japanese items) were on the air till after midnight.

MR. KUBOTA, the recently arrived Japanese Trade Commissioner, explained to "Switch" that the writer's all-electric (A.C.) receiving set was the first he had seen. In Japan crystal and battery-operated sets were in general use, and owing to the low purchasing power of the masses crystal sets were most extensively used.

"SWITCH" gathers that not infrequently parents telephone the "YA" stations with requests to repeat the birthday greetings to little "Johnnie" or "Joan," as he or she was late in getting home and did not hear the greetings. This sort of thing is becoming too frequent, at one station in particular, and if these requests were complied with the children's sessions would be spoilt.

The Joy of Winter!

BIG REDUCTIONS in FARES for special winter excursions to New Zealand's peerless winter resorts—

THE CHATEAU (Tongariro National Park).

THE HERMITAGE (Mount Cook).

Franz Josef and Fox Glaciers (Westland).

Days of exhilarating snow sports outdoors.
Nights of cosy comfort within.

Full particulars from any Railway Station or City Booking Office, and offices of the Mount Cook Tourist Co.

"N.D.C." (Ellerslie) writes to mention various vagaries of the minor New Zealand and Australian broadcast stations with regard to their wavelengths. "Switch" can confirm his statements with regard to the clashing in wavelengths and occasional changes in wavelengths. In reply to queries by "N.D.C.," 2ZH, Napier, is listed on 238 metres, and 2YB, New Plymouth, on 243 metres. Interference between various minor stations is most pronounced on some evenings, and it is difficult to explain why some of these stations change their frequencies.

THE radio wholesalers and retailers are co-operating to hold a big Radio Show on the most comprehensive and attractive scale in the Melbourne Town Hall, from July 18 to 25. A feature of the show is to be the lay-out of the stalls, which are being designed by a firm of architects, and will be of uniform appearance. At 3 p.m. on the opening day of the show, the Lord Mayor of London (Sir Wm. Waterlow), by means of beam wireless, will switch on an illuminated sign in the Melbourne Town Hall, declaring the show open. At 8 p.m. three different series of lights in the hall will be switched on by wireless—one each by the Mayors of Montreal, Suva and Wellington. This reminds one that the Wellington Radio Exhibition is coming along soon.

AN agreeable surprise was experienced by listeners to 2YA, Wellington, the other evening when an impromptu appearance at the studios was made by Madame Alicia Muma, operatic mezzo-soprano vocalist, who sang three charming new songs. In addition to being gifted with a voice of exceptional quality Madame displayed exquisite art in her contributions. In the United States Madame Muma has appeared with the Columbia Grand Opera Co., the Los Angeles, San Francisco Grand Opera Co., and other big organisations. She was born in Toronto, Canada, and was trained in Paris by Madame Regina de Sales and Eugene Priod. "Switch" learns that Madame Muma possesses a most attractive personality and has a fine stage presence.

NOW, if there is one type of person who is generally objectionable it is the "cissy," whether male or female, and one is forced to the conclusion that the correspondent who recently carped at Mr. Clive Drummond's "good-night" from 2YA, Wellington, belongs to that species. While "Kelburn" may dislike Mr. Drummond's characteristic "good-night," "Switch" has heard innumerable complimentary remarks upon it. As to the accidental slip when the "prison" was mentioned by the announcer of 2YA, referred to by "Matilda" (which, by the way, is the name of "Switch's" cat), this was read from the original "copy" which was thrust into Mr. Drummond's hand at the last moment. It is easy for a fast reader to fall into an accidental trap, and once a word is spoken it is too late to expunge it. Mr. Drummond is generally known for his freedom from anything savouring of affectation.

WHILE on the subject of carping criticism, "Switch" would recommend "Kelburn" and "Matilda" to read Hazlitt's incomparable essay, "On the Spirit of Obligations." This a veritable literary jewel, acclaimed by great

writers, past and present. "Matilda," after proclaiming her sympathy with the announcer of 2YA in the difficult task of his vocation, sets about attacking him in unkindly spirit. It is unkind to draw public attention to an obvious slip—merely one in millions of words used by the announcer each year. Hazlitt, who understood the inner workings of man's mentality, says: "In all these pretended demonstrations of an over-anxiety for our welfare, we may detect a great deal of spite and ill-nature lurking under the disguise of a friendly and officious zeal. It is wonderful how much love of mischief and rankling spleen lies at the bottom of the human heart, etc., and 'The exer-

cers' with their coats off, and nearly as many more 'officers' with coats on who 'inspect' and supervise. The weeks have slipped away into months and still the postmen play about with the job."

EVERY week "Switch" meets with beginners who have extremely crude ideas concerning the "earth." Three novices have had to be persuaded recently that merely wrapping a wire round a water-pipe was a poor and almost useless method of making an earth connection. The wire should be soldered to the water-pipe, or else fastened firmly to it with a patent clip, but the water-pipe should be cleaned till it is bright before the clip is applied.

THE essential points of a good earth connection are, firstly, that thoroughly good contact should be obtained with the ground, and, secondly, that the connecting lead between the "earth" and the receiving set should be as short and direct as possible and consist of fairly stout wire or stranded conductor, i.e., having low electrical resistance. Both conditions are met when a connection can be made to the incoming water-pipe by means of a reasonably short copper wire, say of 14 S.W.G. Gas pipes should not be

used as an "earth," as this method is prohibited by the Fire Underwriters' Association and the insulating material in the joints makes a most inefficient earth.

A CORRESPONDENT has asked the writer as to the qualities of one of the latest American A.C. power valves, and asks whether he should substitute one of these valves for his present power valve. As the newer valve has characteristics quite different to the older type, it is not possible to use it. The older valve has a greater amplification factor, and has splendid tone.

A CORRESPONDENT from Westport informs me that, since the Railway Department installed an electric crane at the wharf, owners of "all-electric" sets have been having a very bad time. Nerve-shattering noises come from the trams in Upper Cuba Street lately, also a mysterious disturbance which ceases after 10 p.m.

LISTENERS in Eastbourne are complaining of intense interference from power-line leakages. The writer is told that the seaside suburb is sorely afflicted with this trouble, and many nights it is not possible to receive any "outside" stations at all. Among various theories of the cause of this trouble is that the power-line insulators become encrusted with salt owing to proximity to the sea, thus permitting leakage from the high-tension lines which drowns radio reception.

PAT HANNA, formerly a Wellington signwriter, and a champion diver, who has been conducting a theatrical enterprise known as "The Diggers" for some years, recently broadcast from station 3LO, Melbourne, with his company of entertainers. Pat Hanna won many diving prizes at the Te Aro baths in the pre-war golden days.

Reception Table for Australian Stations

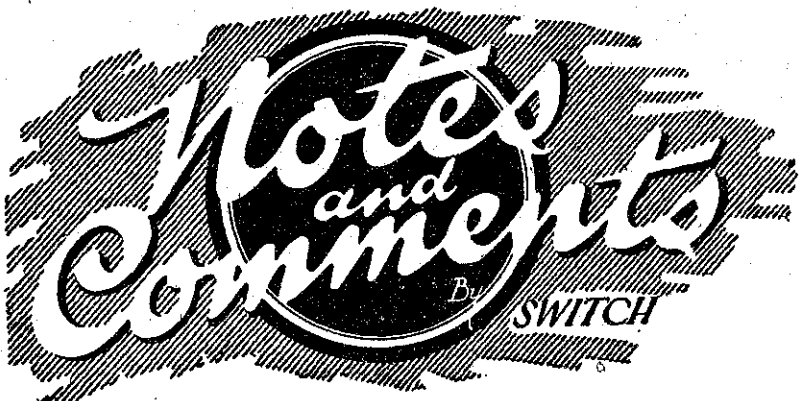
FOR the guidance of those who wish to check their reception of the Australian stations, "Switch" prepares weekly a table showing the average relative strengths with which he has obtained reception at 11.30 p.m. during the past week:—

2FC, Sydney	10
2BL, Sydney	9
4QG, Brisbane	8
3AR, Melbourne	7
3LO, Melbourne	7
2GB, Sydney	5
2UE, Sydney	4
7ZL, Hobart	3½
3UZ, Melbourne	2½
3DB, Melbourne	3
5CL, Adelaide	2
7ZL, Hobart	2
2KY, Sydney	1½

The above figures are the points assessed, with 10 as the maximum.

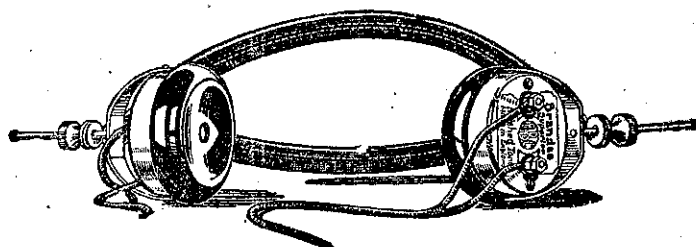
cise of their bile seems to be the sole employment and gratification of some people."

THE Melbourne "Listener In" says: "To save the expense of separate studios for 2FC and 2BL, Sydney, a piece is being cut from 2FC studio to accommodate 2BL. Things will be very crowded when all the artists for the two stations put over their items from the Market Street studio, but no doubt they will manage. For four months the postal department has had men working on the removal. They are now shifting the switchboard and monitoring panel to the new studio. But the time spent and the number of men engaged is appalling. Jobs which the old 2BL staff used to tackle with a man and a boy now engages the attention of half a dozen 'engin-



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Feature Peeps at Future Programmes

SUNDAY

Sunday in Auckland.

IN the Pitt Street Methodist Church, Auckland, at 3 p.m., there will be a Bible-class rally under the chairmanship of Miss Jean Begg. The principal speaker will be Miss Yuki Kimura, of Japan.

This evening will be the last opportunity for some 12 months of listening to the Rev. L. B. Fletcher from the Beresford Street Congregational Church as he will be leaving for England to conduct special mission services there.

Following the church relay there will be a welcome reappearance of Miss Mary Cofid, a young lady with a particularly pleasing soprano voice. Mr. Fred Baker, the well-known baritone, is also on the programme. Included in the Studio Trio items will be "cello solos by Miss Molly Wright, together with other delightful trio selections. Altogether, a programme for lovers of the best in music.

From 2YA.

THE evening service of the Vivian Street Church of Christ will be relayed. The preacher will be the Rev. W. G. Carpenter, and the organist Mrs. L. Sincock. The recital of the Wellington Municipal Tramways Band will be relayed from St. James Theatre at the conclusion of the church broadcast.

Relay from Timaru

3YA News.

THE station will relay from Timaru church service, to be followed by a concert to be given by the Timaru Band. The service to be broadcast will be conducted in the Chalmers Presbyterian Church by the Rev. P. Gladstone Hughes.

Items from 4YA.

THE evening service in St. John's Anglican Church, Roslyn, will be broadcast. The preacher will be the Rev. W. A. Fitchett. The relay of the concert to be given in His Majesty's Theatre by the Kaikorai Band will follow.

MONDAY

2YA Features.

DURING the afternoon a representative of Kirkcaldie and Stains will talk about "home crafts."

In the news session another of the series of talks on "The Motor" will be given by Mr. T. Fahey, of General Motors, Ltd.

The concert session will feature the Ariel Singers and the 2YA Orchestra in a programme of classical nature. The elocutionary items will be given by Mr. W. J. Mountjoy, jun., who made his first appearance before the microphone on the occasion of the Shakespeare programme in April.

The vocal numbers will include solos by Miss Jeanette Briggs, Miss Ngaire Coster, Mr. H. Brusey, and Mr. J. M. Caldwell, as well as concerted items. The Orchestra will play the "Die Liberman" Overture, the "Slavonic Rhapsody," two Rachmaninoff numbers, "Hopeless Longing" (by Tschalkovsky), Oscheet's "Gypsy Caravan" and Chopin's "Valse in A Minor." The solo pianist will be Miss Eileen Clark, who will play the First Movement of Beethoven's Sonata, Op. 57.

Mr. H. Brusey is the new tenor of the Ariel Singers, Mr. Roy Hill having recently transferred to the Lyric Quartet, and from all reports Mr. Brusey is a worthy successor to one whose singing is always of a very high standard.

Miscellaneous Programme from 3YA.

THE vocalists will be Mrs. D. E. Pearce, Mrs. J. A. Stewart, Miss Nancy Bowden, Mr. E. A. Dowell and Mr. S. W. Armstrong. A number of popular airs and old favourites will be sung. Sketches will be presented

Barnes. Their first number will be Scene 2, Act 1 of the opera. This scene depicts the meeting of Faust with Mephistopheles when Faust is rejuvenated. With Mr. Owen Pritchard, Mr. Ripley and Mr. Barnes will give the Duel Scene and the death of Valentine from the same opera.

Mr. Ripley will sing "All Hail Thou Dwelling," and Mr. Len Barnes, "Clear the Way for the Calf of Gold" and "Serenade," all these numbers being from the opera "Faust." Another vocalist for the evening will be Miss Amy Hansard, who will also include among her items two solos from "Faust." The Studio Trio will play selections from "Nadeshda," "Femors," "Carmen," "Mignon," and "Mercenary Mary." Elocutionary items on the programme will be given by Mr. J. M. Clark.

From 2YA.

THERE will be the usual talk for the man on the land.

The evening programme will be one of more than passing interest in that it will feature an hour with one of the most popular composers of the day—Albert Ketelbey. The items that have been chosen will include both vocal and instrumental numbers.

The Etude Quartet, comprising Mr. and Mrs. Ray Kemp, Miss Gretta Stark, and Mr. Will Hancock, have been specially engaged for the vocal work, and care has been taken to include all the more popular of Ketelbey's orchestral compositions for the instrumental portion of the programme as presented by the Salon Orchestra, under Mr. M. T. Dixon. The latter half of the programme will also be popular in nature, marking as it does the return of an old favourite in the person of Mr. Len Ashton, whose songs at the piano are always enjoyed by old and young alike.

Christchurch Exhibition

3YA Notes.

THIS will be the opening night of the Christchurch Radio Olympia. Reference to the programme will be found in another column. A relay to 4YA will be carried out.

WEDNESDAY

Auckland Items.

FROM 12.30 p.m. to 1.30 p.m. there will be a relay of the Community Singing at the Town Hall, and at 7.40 p.m. Mr. Norman Kerr will continue his talks on Physical Culture.

The Auckland Artillery Band under the direction of Mr. Wynne Smith is providing the major portion of the evening's programme. The New Clarion Quartet will make an appearance, their numbers being "Musical Switch," "Ukulele Lullaby," and "Good Evening." These singers are very welcome in Auckland for their artistic work, and they have chosen some very popular numbers for this programme. The members of the quartet are Miss



MR. ROY HILL,
a new member of the Lyric Quartet.
Until recently he took a tenor part
in the well-known Ariel Singers'
combination.
—Jauncey, photo.

Lillian Wood (soprano), Miss Beryl Smith (contralto), Mr. Lambert Harvey (tenor), and Mr. Duncan Black (bass). Another Topical Talk will be given by Mr. A. B. Chappell, M.A. These talks are considered by many listeners to be an outstanding feature of the 1YA programmes.

Exhibition Relay

Notes from 3YA.

This will be the second night of the Christchurch Radio Olympia. Relay to 4YA.

Features from 4YA.

THE afternoon talk, prepared by the Home Science Extension Department of Otago University, will be on "Making of Home-made Soap." The evening talk to farmers will consist of a review of the June issue of the Journal of Agriculture.

THURSDAY

1YA Programme.

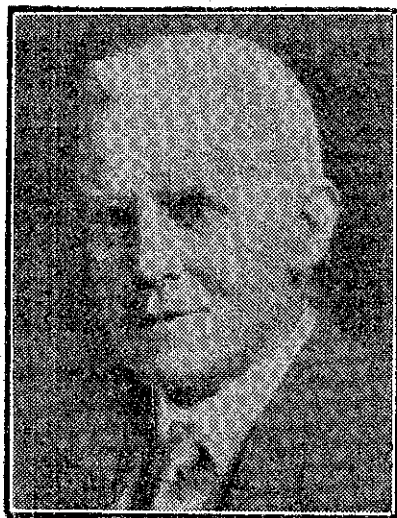
THE instrumental portion of the programme and also the dance programme will be provided by Mr. Reg. Morgan's Orchestra, a very popular Auckland combination. Included among their items will be two baritone solos by Mr. Morgan himself, a violin solo by Mr. Frank Parsons, a trumpet solo by Mr. R. Sprowl, and a flute solo by Mr. C. Hoffman. Mr. Elton Black and Miss Alice Bennetto will give another of their popular entertainments entitled "Pierrot Phantasy." Both these artists have had many years' stage experience and their work is always eagerly looked forward to by listeners. Miss Cathleen Mulqueen, a member of the 1YA Broadcasting Choir, will sing three ballads. The programme will continue with dance music until 11 p.m.

From 2YA.

THE sixth of the series of talks on music will be given by Mr. L.

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MR. DAN MCKENZIE,
one of New Zealand's most prominent
Rugby football authorities. He will
deliver a further talk from 2YA on
July 4.
—S. P. Andrew, photo.

by the humorists. Mr. S. Munday (clarinet) will contribute two items and Mr. Les Grummitt (pianist) will play improvisations of popular melodies.

TUESDAY

"Faust"

Auckland's Programme.

FROM 1YA at 7.15 p.m. Mr. R. Talbot will give a further talk on "Motoring."

Vocal numbers from Gounod's "Faust" will be featured at 1YA. The vocalists for the evening will be Mr. Arthur Ripley and Mr. Len

D. Webster. The aspect which he will deal with will be "Music and the Gramophone."

The major portion of the programme will consist of a relay of the special concert to be given in honour of the opening of Messrs. Hamilton Nimmo and Sons new warehouse and concert hall. An excellent and varied programme has been arranged, contributing artists being Madame Evelyn de Mauny, Mr. Leon de Mauny, and Mr. Claude Tanner, who will be heard in an instrumental trio number. The vocal soloists will be Madame Eugenie Dennis, Misses Ena Rapley, and Madge Freeman and Mr. Edwin Dennis, the well-known Wellington tenor and teacher of singing.

From 3YA.

THE third night of the Christchurch Radio Olympia, for which another very entertaining programme has been arranged. Relay to 4YA.

FRIDAY

AUCKLAND NOTES.

A FURTHER talk on Esperanto will be given at 7.40 p.m. by Mr. W. E. G. Wheeler.

A new singer to 1YA, in the person of Miss Patricia McLeod, will appear this evening and will sing among other numbers, "Chanson Provencale." Mr. Ian Devereux, a popular member of the "Desert Song Company," who has made a name for himself as a very fine singer, will also appear on the programme. He will sing "Life and Death," "All Joy be Thine," and "Inter nos." Another new singer to 1YA, a very fine contralto, is Mrs. L. M. Keven. Included among her numbers will be "Lithuanian Song," by Chopin. Mr. and J. W. Bailey, elocutionists, have included among their numbers a particularly fine dramatic recital entitled "Congo," a study of the negro race. It will be given in three parts: first, their basic savagery; second, their irrepressible high spirits; and third, the hope of their religion.

The programme will conclude with a gramophone lecture-recital given by Mr. Karl Atkinson. July 4 is American Independence Day, and Mr. Atkinson has chosen for the title of his lecture-recital "The Glorious Fourth—a Musical Anniversary."



MR. FRED BAKER, baritone, whose next appearance from 1YA, Auckland, is scheduled for June 29.

—S. P. Andrew, photo.

At 2YA.

MR. DAN MCKENZIE, the well-known Rugby football authority, will give another of his informative talks to-night.

The programme will feature the Lyric Male Voice Quartet, Miss Ailsa Dillon and the Orchestrina under Signor A. P. Truda, in a miscellaneous and operatic programme. The vocal items will include gems from "Faust," "Merrie England," "La Boheme," "Lucrezia Borgia," "Manon," "The Bohemian Girl," and "Il Trovatore." Miss Rosa Mills will recite by request "The Denominational Garden," and a humorous number, "In the Garden." The Orchestrina will play suitable incidental music to this programme. A relay of a sound film feature showing at the Majestic Theatre will be incorporated in the programme.

From Christchurch.

THE fifth night of the Christchurch Radio Olympia. Programme relayed to 4YA.

4YA Programme.

LISTENERS will have an afternoon talk on "Fashions" by Miss Bucleugh.

SATURDAY

1YA Items.

ANOTHER artist new to 1YA will appear this evening, Mr. W. L. Benbow, who has appeared at Australian stations frequently, and who is now stationed in Auckland. He will sing several numbers with Spanish guitar accompaniment. The ever-popular Snappy Three will also appear in some of the latest hits, and they have included a locally-written song entitled "A Kiss, a Caress, and then Adieu" (by Sharp). Mr. Roger Errington, popular tenor vocalist, will also appear on the programme, and the 1YA Orchestral Octet, under the direction of Mr. Eric Waters, will give several orchestral items. The programme will conclude with dance music until 11 p.m.

Second Test

From 2 and 3YA.

THIS afternoon both 2YA and 3YA will broadcast the second Rugby Test Match between Britain and New Zealand, to be played at Christchurch.

The first half of 2YA's programme will consist of many items in keeping with the day, which is Tynwald Day—the National Day of the Manx people. Mr. T. El Corkill, president of the Manx Society, will speak on "The Isle of Man," and his talk will prove of interest to all, Mr. Corkill being a speaker who is well versed in matters appertaining to the Isle of Man.

The Melodie Four, Mr. A. G. Flanagan and Miss Nora Grey will all contribute Manx items. A feature of the programme will be the Manx national songs, as sung by the London Manx Choir.

The second portion of the programme will be of the usual vaudeville type, and will include novelty piano numbers by Mr. Claude Bennett, humour by Mr. Will Bishop, and selections by the Salon Orchestra under Mr. M. T. Dixon.

Children's Sessions

At 2YA.

MONDAY, JUNE 30.—Uncle Jeff is bringing "Wendy" with him to-night to sing about "Christopher Robin." Cousin Jean will tell a little story, and Cousin Ailsa will sing two charming songs. It is Puzzle Night, too.

TUESDAY.—Uncle Jim will be here to-night, and he is bringing with him Helen Gardner's juvenile pupils. They will be such a happy band.



MR. CLAUDE TANNER, a distinguished Wellington 'cellist, who will appear at a concert to be held in Nimmo's Concert Chamber on July 3. The performance will be relayed by 2YA. (See page 7.)

—S. P. Andrew, photo.

THURSDAY.—Uncle George to-night. Mrs. Mildred Kenny is bringing her Juvenile Band with mandolins and ukeleles and steel guitars. Also Zena Jupp's little pupils will recite, and the 2YA Children's Chorus will sing.

FRIDAY.—This is Story Book Lady's night, and Big Brother Jack's. Isabel Halligan is bringing her pupils

3 & 4YA.

A NIGGER Minstrel entertainment for the last night of the Christchurch Radio Olympia. Again relayed to 4YA.

and children from Buckle Street Convent will also be here.

SATURDAY.—To-night the little pupils of Mrs. Martyn Williams will sing, recite, and give musical monologues. Cousin Hayward and Toby will give mandolin and guitar items. Cousin Roma and Uncle Toby will tell stories.

SUNDAY, JULY 6.—The Children's Choir from the Miramar Presbyterian Church, under the Rev. H. W. Hitchcock, will sing to-night, and as usual Uncle George will conduct the service.

Auckland "B" Station's Plans

IN last week's issue "Call-up" stated that the "B" class station 1ZB, Auckland, was proposing to increase its power and its hours of broadcasting. Further details supplied by Mr. C. H. Pearson, the station's announcer, are that the station intends to go on the air from 10 a.m. till 3 p.m. daily and to give evening sessions on Mondays, Wednesdays and Saturdays.

The estimated cost of the suggested extension of service hours and increase in power is between £300 and £400. The tentative scheme provides for the following daily sessions: 10-11 a.m., women's; 11 a.m.-12 noon, news; 12 noon-3 p.m., miscellaneous concert programmes. A vote is to be taken among the station's regular listeners, however, before any definite allocation of the hours is made.

Station 1ZQ, operated by Keith's Radio Shack, Auckland, also has plans in hand for improving its service. It is shortly to move from its present location at Mount Albert to the Lewis Eady Building, Queen Street. From this new location it is hoped to be able to give greatly improved programmes, for in addition to the fact that a large stock of gramophone records will be available, the station will also be able to broadcast musical items from the Lewis Eady Hall in the same building. Proposals for increasing the power of the station and for conducting afternoon sessions are also being considered. Mr. Roy Keith will continue to operate and manage the station and will also act as announcer.

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Full Programmes for Next

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Sunday, June 29

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, JUNE 29.

- 3.0 : Talk—Relay from Pitt Street Methodist Church. Address by Miss Yuki Kimura, of Japan, to the Inter-denominational Youth's Council. Literary selection by the Announcer.
- 4.30: Close down.
- 6.0 : Children's Song Service, conducted by "Uncle Leo."
- 6.55: Relay—Divine Service, Beresford Street Congregational Church. Preacher: Rev. Lionel B. Fletcher. Organist and Choirmaster: Mr. W. Gemmell.
- 8.30: (Approx.)—Selection—Classic Symphony Orchestra, "Classical Memories" (arr. Ewing) (Regal G30024).
Soprano—Miss Mary Cofield, "Christina's Lament" (Dvorak).
Instrumental trio—Studio Trio, (a) "Bouree in G" (Bach); (b) "1st Movement" (abridged) from "Brandenburg Concerts" (Bach).
Baritone—Mr. F. Baker, (a) "Oberon in Fairyland" (Slater); (b) "Lute Player" (Allitsen).
'Cello solo—Miss Molly Wright, "In Happier Days" (Popper).
Soprano—Miss Mary Cofield, (a) "To a Miniature" (Brahe); (b) "Two Eyes of Grey" (McGeoch).
Male choir—The Salisbury Singers, "Round About a Wood" (Morley).
Instrumental trio—Studio Trio, "1st and 2nd Movements from Trio in D Major" (Eric Waters).
Baritone—Mr. F. Baker, "I Am Fate" (Hamblin).
Instrumental trio—Studio Trio, "Slow Movement and Finale from Trio in D Major" (Eric Waters).
'Cello—Miss Molly Wright, "Rustic Dance" (Squire).
Selection—Band of H.M. Grenadier Guards, "Ivanhoe Selection" (Sullivan, arr. Godfrey) (Col. 02980).
God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JUNE 29.

- 3.0 : Chimes.
Afternoon session.
- 4.30: Close down.
- 6.0 : Children's Song Service, conducted by Uncle George, assisted by the Children's Choir from the Aro Street Mission, under the leadership of Mr. Musker.
- 7.0 : Relay of Evening Service of the Church of Christ, Vivian Street. Preacher: Pastor W. G. Carpenter. Organist: Mrs. L. Sincok. Choirmaster: Mr. W. G. Carpenter.
- 8.15: (Approx.)—Relay of Band Recital of the Wellington Municipal Tramways Band from the St. James Theatre (Conductor, Mr. E. Franklin).
God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JUNE 29.

- 3.0 : Afternoon session—Gramophone recital.
- 4.30: Close down.
- 5.30: Children's Song Service by children of the Salvation Army, conducted by Adjutant Goffin, of the Salvation Army.
- 6.15: From studio—Musical recordings.
- 6.30: Relay from Timaru of Choral Evening Service from Chalmers Presbyterian Church. Preacher: Rev. P. Gladstone Hughes, B.A. Organist: Mr. J. Fraser. Choirmaster: Mr. A. E. Holst. Subject of Address: "The Choir Spirit." Anthem: "Lead Kindly Light." Choirmaster: Miss C. Flamank.
- 7.45: Intermission—Special musical recordings from studio.
- 8.15: (Approx.)—Relay from Timaru—Band Concert programme by Timaru Municipal Band on relay from His Majesty's Theatre, Timaru.
God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JUNE 29.

- 3.0 : Chimes. Selected gramophone items.
- 4.30: Close down.
- 5.30: Children's Song Service, conducted by Big Brother Bill.
- 6.15: Close down.
- 6.30: Relay Evening Church Service from St. John's Anglican Church, Roslyn. Preacher: Rev. W. A. Fitchett. Organist: Mrs. Allen.
- 7.45: Selected gramophone items from the studio.
Philadelphia Symphony Orchestra, "Russian Easter Festival."
Don Cossacks Choir, "In the Church" (Tschalkowsky); "Korsaken Wiegenlied" (Gretschaninoff) (Col. 0298).
8.5 : Relay of Kaikorai Band Concert, under direction of Mr. Thos. J. Kirk-Burnand, from His Majesty's Theatre, Dunedin.
- 9.30: God Save the King.

Monday, June 30

1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, JUNE 30.

SILENT DAY.

2YA, WELLINGTON, 720 KILOCYCLES—MONDAY, JUNE 30.

- 3.0 : Chimes. Selected Studio Items.
- 3.15: Lecturette by representative of Messrs. Kirkcaldie and Stains Ltd., "Home Crafts."
- 3.30 and 4.30: Sporting results.
- 4.55: Close down.
- 5.0 : Children's Session, conducted by Uncle Jeff.
- 6.0 : Dinner Music Session, "Columbia" Hour.
Orchestral—Squire Celeste Octet, "Peter Pan Selection" (Crook).
'Cello—Gaspar Cassado, "Chanson Villageoise" (Popper) (03595).
Orchestral—Columbia Symphony Orchestra, "Scarf Dance" (Chaminade) (01371).
- 6.13: Tacet.
- 6.15: Orchestral—Debroy Somers' Band, "The Desert Song" (Romberg).
'Cello—Gaspar Cassado, "Menuett" (Haydn, arrgd. Burmester-Moffat).
Male Choir—Sheffield Orpheus Male Choir, "Hymn Before Action" (Kipling-Walford-Davies) (Regal G30008).
- 6.28: Tacet.
- 6.30: Orchestral—Halle Orchestra, "Rosamunde Ballet Music" (Schubert), 1. Andantino; 2. Allegro Moderato; 3. Andante un Poco Assia).
Instrumental—Paul Whiteman and His Orchestra, "Christmas Melodies" (Noel and Adele Fideles) (07511).
- 6.43: Tacet.
- 6.45: Orchestral—Columbia Symphony Orchestra, "The Flatterer" (Chaminade) (01371).
Zurich Tonhalle Orchestra, "Gavotte" from "Idomeneo" (Mozart).
Paul Whiteman and His Orchestra, "Silent Night Holy Night."
Male Choir—Sheffield Orpheus Male Choir, "The Long Day Closes" (Chorley) (Regal G30008).
- 6.58: Tacet.
- 7.0 : News Session, Market Reports and Sports Results.
- 7.40: Lecturette—Mr. T. Fahey, "The Motor."
- 8.0 : Chimes.
Overture—2YA Orchestra (Conductor Signor A. P. Truda) "Die Leberman" (Grunfield).
- 8.9 : Quartet—Ariel Singers, "April Is In My Mistress' Face" (Morley).
- 8.13: Soprano—Miss Jeannette Briggs, "Isle of My Heart" (Kennedy-Fraser).
- 8.17: Piano—Miss Eileen Clark, "1st Movement Sonata Op. 57" (Beethoven).
- 8.24: Bass—Mr. J. M. Caldwell, "The Pibroch" (Stanford).
- 8.28: Elocution—Mr. W. J. Mountjoy Junr., "What is a Gentleman" (Andrews).
- 8.34: Instrumental—2YA Orchestra, "Slavonic Rhapsody No. 3" (Dvorak).
- 8.42: Contralto—Miss Ngaire Coster, "The Sandman" (Brahms).
- 8.46: Tenor—Mr. H. Brusey, (a) "Phyllis Has Such Charming Graces" (Lane Wilson); (b) "My Lovely Celia" (Lane Wilson).
- 8.52: Instrumental—2YA Orchestra, (a) "Hopeless Longing" (Tschalkowsky); (b) "Gypsy Caravan" (Oscheit).
- 9.0 : Weather Report and Announcements.
- 9.2 : Soprano—Miss Jeanette Briggs, "Villanelle" (Dellacqua).
- 9.6 : Septet—Virtuoso String Quartet with J. Cockerill, R. Murchy and C. Draper, "Introduction and Allegro for Harp, with Strings and Woodwind Accompaniment" (H.M.V. C1662).
- 9.14: Bass—Mr. J. M. Caldwell, "When Lights Go Rolling Round the Sky" (Ireland).
- 9.18: Instrumental—2YA Orchestra, (a) "L'Ilot" (Rachmaninoff); (b) "Des Lilas" (Rachmaninoff).
- 9.26: Choral with organ—Trinity Choir, (a) "Hallelujah Chorus" (Messiah) (Handel); (b) "Gloria from Twelfth Mass" (Mozart).
- 9.34: Contralto—Miss Ngaire Coster, "In the Woods" (Webber).
- 9.38: Elocution—Mr. W. J. Mountjoy, Junr. "The Sad Story of the Motor-Car Boy" (Anon.).
- 9.44: Septet—Virtuoso String Quartet, with J. Cockerill, R. Murchy and C. Draper, "Introduction and Allegro for Harp Strings and Woodwind Accompaniment" (Ravel) (H.M.V. C1662).
- 9.44: Septet—Virtuoso String Quartet, with J. Cockerill, R. Murchy and C. Draper, "Introduction and Allegro for Harp Strings and Woodwind Accompaniment" (Ravel) (H.M.V. C1662).
- 9.52: Waltz—2YA Orchestra, "Valse A Minor" (Chopin).
- 10.0 : God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, JUNE 30.

- 3.0 : Afternoon session—Gramophone recital.
- 4.25: Sports results.
- 4.30: Close down.
- 5.0 : Children's hour—"Scatterjoy!"

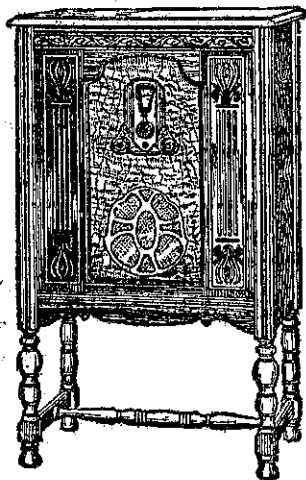
Week-all Stations-to July 6

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- 6.0 : Dinner session—"Columbia" Hour.
Band—Band of the Garde Republicaine of France, "The Two Pigeons":
(1) Entrance of Tziganes, (2) Scene and March of the Two Pigeons (Messenger) (02924), (3) Hungarian Dance, (4) Theme and Variations (Messenger) (02925).
- 6.14: Tacet.
- 6.15: Orchestral—Modern Dance Players, "Over the Waves" (Rosas).
Orchestral—Modern Dance Players, "Amoretten Tanze" (Gungl).
Piano—Gil Dech, "Le Jet D'Eau" (Smith) (01719).
Band—B.B.C. Wireless Military Band, "Fourpence Halfpenny Farthing."
Trio—Stellar Instrumental Trio, "The Maiden's Prayer."
- 6.28: Tacet.
- 6.30: Band—H.M. Grenadier Guards, "Fantasia on 17th Century Music, A.D. 1664" (arrgd. Major George Miller) (02890).
Saxophone—Rudy Wiedoeft, "Melody" (Dawes) (01180).
Orchestral—Continental Novelty Orchestra, "Los Claveles de Sevilla."
- 6.43: Tacet.
- 6.45: Orchestral—Continental Novelty, "Las Lagarteranas."
Instrumental—Squire Celeste Octet, "Come into the Garden, Maud."
Instrumental—Squire Celeste Octet, "Killarney" (Balfe—arrgd. Sear).
Organ—Terence Casey, "I'm Lonely" (Coates) (01501).
Band—B.B.C. Wireless Military Band, "Lilli Burihero."
- 6.58: Tacet.
- 7.0 : News session.
- 8.0 : Chimes.
Overture—Jack Hylton's Orchestra, "The Selfish Giant" (Coates).
- 8.9 : Light baritone—Mr. E. A. Dowell, "Love Sends a Little Gift of Roses."

- 8.13: Soprano—Mrs. D. E. Pearce, (a) "In the Garden of Your Heart" (Dorel); (b) "Valse" (K. Russell).
- 8.18: Organ—Jesse Crawford, "Dance of the Blue Danube" (Fisher).
- 8.21: Humorous sketch—The Humorists, "Fishing" (Harry Tate).
- 8.31: Piano—Miss Allison Allsop, "Valse Op. 14" (Rubinstein).
- 8.36: Mezzo-soprano—Mrs. J. A. Stewart, "Beloved, it is Morn" (Aylward).
- 8.40: Clarinet—Mr. S. Munday, "Drink to Me only with Thine Eyes."
- 8.45: Baritone—Mr. S. W. Armstrong, (a) "The Harp that Once Thro' Tara's Halls" (Irish Traditional); (b) "Because" (D'Hardelot).
- 8.52: Contralto—Miss Nancy Bowden, "Mélisande in the Wood" (Goetz).
- 8.56: Orchestral—New Light Symphony Orchestra, "Rustic Wedding Symphony" (Goldmark) (H.M.V. C1210).
- 9.0 : Weather report and station notices.
- 9.2 : Baritone—Mr. E. A. Dowell, (a) "Come, Sing to Me" (Thompson); (b) "At Peace with the World" (Berlin).
- 9.10: Orchestral—New Light Symphony Orchestra, "Malaguena."
- 9.14: Soprano—Mrs. D. E. Pearce, "The Bells of Brittany" (Lyall).
- 9.19: Organ—Jesse Crawford, "I Can't Do Without You" (Berlin).
- 9.22 : Humorous sketch—The Humorists, "Trying a Magistrate" (Toole).
- 9.32: Piano—Miss Allison Allsop, "Liebestraume" (Liszt).
- 9.37: Mezzo-soprano—Mrs. J. A. Stewart, (a) "Sunshine and Shadow" (Hampson); (b) "Such a Lil' Fellow" (Dichmont).
- 9.44: Clarinet solo—Mr. S. Munday, "The Toreador's Song" (Bizet).
- 9.49: Baritone—Mr. S. W. Armstrong, "A Farewell" (Liddle).
- 9.53 : Contralto—Miss Nancy Bowden, (a) "Lads Love" (Con Clarke); (b) "Caprice" (Furnell).
- 9.57: Orchestral—La Vittoria Orchestra, "Wedding of the Winds" (Hall).
God Save the King.

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RADIO DIVISION

Hope Gibbons Ltd

WELLINGTON

4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, JUNE 30.

- 3.0 : Chimes. Selected gramophone items.
- 4.25: Sporting results.
- 4.30: Close down.
- 5.0 : Children's hour, conducted by Uncle Allan.
- 6.0 : Dinner music, "H.M.V." hour.
Orchestral—Marek Weber and Orchestra, "Beggar Student."
Orchestral—Philadelphia Symphony Orchestra, "Carmen Entr'acte, Act 4" (Bizet) (E531).
Piano—Wilhelm Backhaus, "Bohemian Dance" (Smetana) (DB1130).
- 6.13: Tacet.
- 6.15: Band—Creator's Band, "Semiramide" (Rossini) (C1420).
Orchestral—Philadelphia Symphony Orchestra, "Soldiers Changing the Guard" (Bizet) (D1618).
Orchestral—Marek Weber and Orchestra, "Rustle of Spring" (Sinding).
- 6.38: Tacet.
- 6.40: Orchestral—New Symphony Orchestra, "Neil Gwynn Dances, Nos. 1 and 2" (Edward German) (B2987).
Orchestral—Philadelphia Symphony Orchestra, "Carmen March of the Smugglers" (Bizet) (D1618).
Piano—Wilhelm Backhaus, "Caprice Espagnole" (Moszkowski).
- 6.44: Tacet.
- 6.45: Orchestral—Marek Weber and Orchestra, "My Darling Waltz."
Band—National Military Band, "Flying Dutchman Overture."
Orchestral—Philadelphia Symphony Orchestra, "Carmen Entr'acte, Act 1" (Bizet) (E531).
- 6.58: Tacet.
- 7.0 : News session.
- 7.40: Talk—under auspices of W.E.A.
- 8.0 : Chimes.
- 8.1 : Selection—Classic Symphony Orchestra, "I Pagliacci" (Leoncavallo, arr. Godfrey) (Regal G30007).
- 8.9 : Grand opera—Presentation of Verdi's Opera, "Il Trovatore." Produced by Mr. Alfred Walmsley, late of Carl Rosa Opera Co.
Leonore Mrs. Eric Ewart, L.A.B.
Inez Miss Betty Hamilton
Azucena Miss M. Vickers, L.A.B.
Manrico Mr. Alfred Walmsley
Count de Luna Ferrando Mr. William Ruffell

- Supported by full chorus. Story of opera told by Mr. A. Walmsley.
- 8.18: Act 1 and Act 2.
- 9.0 : Weather report.
- 9.2 : Grand Opera presentation of "Il Trovatore" (continuation).
Act 3 and Act 4.
- 9.56: Selection—Zurich Tonhalle Orchestra, "Gavotte from 'Idomeneo'."
- 10.0 : God Save the King.

Tuesday, July 1

1YA, AUCKLAND (900 KILOCYCLES), TUESDAY, JULY 1.

- 3 p.m.: Afternoon session, selected studio items.
 3.15: Talk—Mrs. Les Crane, "The Beauty of Mind and Body in Relation to Diet."
 3.30: Further selected studio items.
 4.30: Close down.
 5.0: Children's session, conducted by Uncle Dave.
 6.0: Dinner music—"H.M.V." hour.
 Overture—National Symphony Orchestra, "Orpheus in Hades" (Offenbach), Zono. EF16.
 Instrumental—San Francisco Symphony Orchestra, "Caprice Viennois"
 6.12: Tacet.
 6.15: Instrumental—New Light Symphony Orchestra, (a) "Spring Song" (Mendelssohn); (b) "Narcissus" (Nevin), Zono. EE111.
 Instrumental—San Francisco Symphony Orchestra, "Coppelia Ballet"
 Violin—Fritz Kreisler, "Tango Albeniz" (arr. Kreisler), DA1009.
 6.28: Tacet.
 6.30: Instrumental—Philadelphia Symphony Orchestra, "Invitation to the Waltz" (Weber), D1285.
 Instrumental—San Francisco Symphony Orchestra, (a) "Serenade" (Moszkowski); (b) "Oriental" (Auber), ED6.
 6.42: Tacet.
 6.45: Orchestral—San Francisco Symphony Orchestra, "Valse de Concert"
 Instrumental—San Francisco Symphony Orchestra, "Liebeslied"
 6.57: Tacet.
 7.0: News session and market reports.
 7.15: Talk—Mr. R. Talbot, "Motoring."
 8.0: Chimes.
 Overture—Edith Lorand's Orchestra, "Cavalleria Rusticana" (Mascagni), Parlo. E10569.
 8.9: Vocal duet—Mr. Arthur Ripley and Len Barnes, Act 1, Scene 2, "Faust" (Gounod).
 8.17: Instrumental Trio—Selection, "Nadeshda" (Thomas).
 8.27: Elocution—Mr. J. M. Clark, "Cassius Instigating Brutus to the Murder of Caesar" (Shakespeare).
 8.34: Violin—Andreas Weissgerber, "Souvenir De Moscow," Parlo. A4105.
 8.38: Baritone—Mr. Len Barnes, (a) "Clear the Way for the Calf of Gold" ("Faust"), (Gounod); (b) "Serenade" ("Faust"), (Gounod).
 8.46: Instrumental Trio—Studio Trio, "Dance from the Opera, 'Teramors'" (Rubinstein).
 8.52: Mezzo-soprano—Miss Amy Hansard, (a) "Careselve, from 'Atlanta'" (Handel); (b) "Flower Song from 'Faust'" (Gounod).
 8.59: Orchestral—Grand Symphony Orchestra, "L'Arlesienne Suite No. 1. Adagretto" (Bizet), Parlo. E10597.
 9.3: Evening weather forecast and announcements.
 9.5: Instrumental Trio—Studio Trio, (a) "Micaela's Song" from "Carmen" (Bizet); (b) "Polacca" from "Mignon" (Thomas).
 9.11: Elocution—Mr. J. M. Clark, "Death of Sydney Carton" (Dickens).
 9.17: Chorus—Opera Comique, Paris, "March and Chorus, Act IV," "Carmen" (Bizet), Parlo. A4028.
 9.21: Tenor—Mr. Arthur Ripley, "All Hail, Thou Dwelling" ("Faust"), (Gounod).
 9.25: Instrumental Trio—Studio Trio, selection from the musical comedy, "Mercenary Mary" (Conrad-Youmans).
 9.35: Mezzo-soprano—Miss Amy Hansard, (a) "Pastorale" from "Rosalinda" (Veracini); (b) "Romance" from "Faust" (Gounod).
 9.42: Orchestral—Grand Symphony Orchestra, "L'Arlesienne Suite No. 1. Minuet, Allegro Glucoso" (Bizet), Parlo. E10597.
 9.46: Vocal Trio—Messrs. Arthur Ripley, Len Barnes and Owen Pritchard, "Duel Scene," "Faust" (Gounod).
 9.54: Band—H.M. Grenadier Guards, "Merrie England" (German), Col.
 10.0: God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, JULY 1.

- 8.0: Chimes, Selected Studio Items.
 8.30 and 4.30: Sporting Summary.
 4.55: Close down.
 5.0: Children's Session, conducted by Uncle Jim.
 6.0: Dinner music session—"H.M.V." Hour.
 March—U.S. Army Band, "Army and Marine" (Starke).
 Selection—Piccadilly Orchestra, "The Waltz Dream" (Strauss).
 Jack Hylton's Orchestra, "My Inspiration Is You" (Nicholls).
 6.12: Tacet.
 6.15: Royal Opera Orchestra, "Sylvia Ballet Prelude" (Delibes) (C1417).
 Royal Opera Orchestra, "Sylvia Ballet Intermezzo" (Delibes).
 Salon Orchestra—"Chanson Boheme" (Baldi) (B2581).
 6.27: Tacet.
 6.30: Jack Hylton's Orchestra, "A Room with a View" (Coward) (C1577).
 Salon—San Francisco Symphony Orchestra, "Marche Militaire" (Schubert) (ED9).
 6.42: Tacet.
 6.45: Detroit Symphony Orchestra, "Spanish Rhapsody" (Chabrier) (E322).
 Balalaika Orchestra, "Shining Moon" (Russian Folk Song) (EA48).
 March—U.S. Army Band, "American Spirit" (Buglione).
 6.57: Tacet.
 7.0: News Session, Market Reports and Sports Results.
 7.40: Lecture—Representative Department of Agriculture, "For the Man on the Land."

A SPECIAL PROGRAMME FEATURING "AN HOUR WITH KETELBEY."

The first hour of this programme will be devoted to compositions of the popular composer Albert W. Ketelbey, rendered by the Etude Quartet and the Salon Orchestra.

- 8.0: Chimes.
 Overture—2YA Salon Orchestra, (Conductor Mr. M. T. Dixon) "Chal Romano" (Ketelbey).
 8.9: Quartet—Etude Quartet, "Men of England" (Ketelbey).
 8.13: Instrumental Trio—Messrs. W. Haydock, S. Chapman and M. T. Dixon, "Suite Romantique" (Ketelbey).
 8.23: Soprano—Miss Greta Stark, "Sanctuary of the Heart" (Ketelbey).
 8.27: Baritone—Mr. Ray Kemp, "In a Persian Market" (Ketelbey).
 8.31: Suite—Salon Orchestra, "Scenes From the Kinema" (Ketelbey).
 8.43: Contralto—Mrs. Ray Kemp, "Will You Forgive" (Ketelbey).
 8.47: Tenor—Mr. Will Hancock, "In a Monastery Garden" (Ketelbey).
 8.51: Suite—Salon Orchestra, "By the Blue Hawaiian Waters" (Ketelbey).
 9.1: Weather Forecast and Announcements.
 9.3: Quartet—Etude, "Rest Gentle Maiden" (Bishop).
 9.7: Instrumental—Salon Orchestra, "Request Item."
 9.13: Humour—Mr. Len Ashton, (a) "Resuscitated Rhymes" (Rose); (b) "It's An Old Spanish Custom" (Hart).
 9.22: Duet—Miss Greta Stark and Mr. Ray Kemp, "Tell Her I Love Her So" (Defaye).
 9.26: March—Salon Orchestra, "Marche Militaire" (Schubert).
 9.30: Dance programme, "Columbia."
 Foxtrot—Broadway Nitelites, "You're the Cream in My Coffee" (de Sylva) (01663).
 Foxtrot—Denza Dance Band, "A Lane in Spain" (Lewis and Lombardo) (0722).
 Foxtrot—Benson All-Star Orchestra, "To Know You is to Love You" (de Sylva-Brown and Henderson) (01603).
 Foxtrot—The Piccadilly Players, "The Five O'Clock Girl" (Happy Go Lucky Bird) (Kaimar and Ruby) (01492).
 Vocal—Will Fyffe, "She Was the Belle of the Ball" (Will Fyffe).
 9.45: Foxtrot—The Piccadilly Players, "The Five O'Clock Girl" (Who Did? You Did) (Kaimar and Ruby) (01492).
 Foxtrot—Rhythmic Vocal Refrain, "Revolutionary Rhythm" (Davis-Coots-Spier) (G20600).
 Foxtrot—Ipana Troubadours, "I's Wonderful" (Gershwin) (01306).
 Foxtrot—Ipana Troubadours, "I'll Get By" (As Long as I Have You) (Turk-Albert) (01647).
 Foxtrot—Debroy Somers' Band, "Without You Sweetheart" (de Sylva).
 Foxtrot—Paul Specht and Orchestra, vocal trio, "Hittin' the Ceiling" (Gottler, Mitchell and Conrad) (01629).
 10.3: Vocal—Charles Lawman and Novelty Accompaniment, "Oh! Sweetheart Where are You To-night?" (Davis and Coots).
 Foxtrot—Rudy Vallee, "Outside" (Flynn) (Regal G20570).
 Foxtrot—Denza Dance Band, "One Summer Night" (Coslow and Spier).
 Foxtrot—Swain's Cafe Royal Band, "It Goes Like This, That Funny Melody" (Caesar-Friend) (Regal G20570).
 10.15: Waltz—Selvin's Orchestra, "Ramona" (Wayne-Gilbert) (01187).
 Foxtrot—Bernie's Orchestra, "I Want to Meander in the Meadow" (Woods-Tobias) (01692).
 Foxtrot—Midnight Revellers, "The Moonlight March" (Newman-Lombardo) (Regal G20522).
 Foxtrot—Bernie's Orchestra, "Where the Bab-Babbling Brook" (Nelson-Pease-O'Flynn) (01692).
 Foxtrot—Paul Specht and Orchestra, vocal refrain, "Sing a Little Love Song" (Gottler-Mitchell and Conrad) (01629).
 10.30: Vocal—Charles Lawman and Novelty Accompaniment, "When We Get Together in the Moonlight" (Rose-Ryan and Violinsky).
 Waltz—The Cavaliers, "Sleepy Valley" (Hanley-Sterling) (01688).
 Foxtrot—Lombardo's Royal Canadians, "You Made Me Love You" (Lombardo-Kippel) (01690).
 Foxtrot—Rhythmic Troubadours and Vocal Refrain, "When the Real Thing Comes Your Way" (Spier and Coslow) (Regal G20600).
 Foxtrot—Lombardo's Royal Canadians, "You Belong To Me, I Belong to You" (Lombardo-Newman) (01690).
 Foxtrot—Midnight Revellers, "Sweetheart's Holiday" (Robinson-Kahal) (Regal G20522).
 10.48: Waltz—The Cavaliers, "Recollections" (Rapee-Pollack) (01688).
 Waltz—Swain's Band, "Sleep, Baby, Sleep" (Tucker and Schuster).
 Foxtrot—Selvin's Orchestra, "In My Bouquet of Memories" (Akst-Lewis-Young) (01187).
 Waltz—Swain's Band, "Heigh Ho! Everybody Heigh Ho!" (Harry Woods) (Regal G20575).
 11.0: God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, JULY 1.

- 8.0: Chimes.
 Second Year of the Christchurch
 RADIO OLYMPIA.
 Opening Night at the Art Gallery,
 Durham Street, Christchurch.
 Opening Speeches by His Worship the Mayor,
 Rev. J. K. Archer.
 8.30: March—Woolston Band (Conductor, Mr. R. E. Estall), "B, B and C, F."
 8.34: Male quartet—Beckenham Male Quartet, "When Evening's Twilight Gathers Round" (Hatton).
 8.38: Trio—Christchurch Broadcasting Trio, "Londonderry Air."

- 8.42: Bass baritone—Barend Harris, Folk Songs with Introductory Comments, (a) "Hamoleket" (Sung in Hebrew) (The Birthplace), the marching song of the Zionists in Palestine; (b) "At Cupid's Shrine" (Sung in English).
- 8.52: Overture—Woolston Band, "The Bohemian Girl" (Balfe).
- 9.0 : Weather report and station notices.
- 9.2 : Return to 3YA studio for the following items:—
Selection—Ray Starita Ambassadors Band and Chorus, "The Five O'Clock Girl" (Kalmar and Ruby) (Columbia 02886).
- 9.10: Orchestral—Paul Whiteman and His Orchestra, "Liebestraum."
- 9.14: Hawaiian—South Sea Islanders, (a) "The Call of Aloha" (Hyatt); (b) "That's What the Lei Said to Me" (Perez) (Columbia 01014).
- 9.20: Humour—Will Fyffe, "She was the Belle of the Ball" (Fyffe).
- 9.23: Organ—Milton Charles, (a) "Love's Old Sweet Song" (Molloy); (b) "From the Land of Sky Blue Water" (Cadman); (c) "At Dawning."
- 9.30: Continuation of programme from the Radio Olympia at the Art Gallery. Selections—Woolston Band, Selections from "Schubert's Works."
- 9.40: Humorous male quartet—Beckenham Male Quartet, "Peter the Cat."
- 9.47: Instrumental trio—Christchurch Broadcasting Trio, "Rondo."
- 9.57: Baritone—Barend Harris, Hebrew Folk Song, (a) "Tif in Weidele" (Deep in the Forest) (Sung in Yiddish); (b) "The Company Sergeant Major" (Sung in English).
- 10.5 : Phantasy—Woolston Band, "In a Chinese Temple Garden" (Ketelbey).
- 10.12: Soprano—Miss Lottie Colville with Orchestra (Broadcasting Trio), (a) "The Little Old Garden" (Hewitt); (b) "Little Print Sunbonnet" (from song cycle "The Little Sunbonnet") (Lohr).
- 10.17: Selection—Woolston Band, "Turkish Patrol" (Ord Hume).
- 10.23: Male quartet—Beckenham Quartet, "An Evening's Pastoral" (Shaw). Male quartet—Beckenham Quartet, "Mother Goose Medley" (Gracey).
- 10.29: March—Woolston Band, "Concordia" (arrgd. Ord Hume).
God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, JULY 1.

- 3.0 : Chimes. Selected gramophone items.
- 4.25: Sporting results.
- 4.30: Close down.
- 5.0 : Children's hour, conducted by Uncle Pete.
- 6.0 : Dinner music, "Columbia" hour.
Selection—H.M. Grenadier Guards, "Merrie England" (German).
Instrumental—Bournemouth Municipal Orchestra, "Idylle Bretonne."
- 6.12: Tacet.
- 6.15: Waltz—Jacque Jacobs Ensemble, "L'Estudiantina" (Waldteufel).
Instrumental—Plaza Theatre Orchestra, (a) "A La Gavotte" (Finck); (b) "Minuet" (Finck) (01439).
March—H.M. Grenadier Guards Band, "Old Panama" (Alford).
- 6.27: Tacet.
- 6.30: Instrumental—Ketelbey's Concert Orchestra, "The Sacred Hour."
Instrumental—Sandler's Orchestra, "Some Day, Somewhere" (Rapee).
Instrumental—Bournemouth Municipal Orchestra, "Fluttering Birds."
- 6.43: Tacet.
- 6.45: Quartet—Musical Art Quartet, (a) "Mighty Lak a Rose" (Nevin); (b) "To a Wild Rose" (McDowell) (01506).
Instrumental—Sandler's Orchestra, "Sonny Boy" (de Sylva) (01521).
March—H.M. Grenadier Guards, "Dunedin" (Alford) (01535).
- 6.57: Tacet.
- 7.0 : News session.
- 8.0 : Chimes. Relay of concert programme from Christchurch Radio Olympia.
- 10.30: God Save the King.

Wednesday, July 2

1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, JULY 2.

- 12.30: Relay, Community Singing from Auckland Town Hall.
- 1.30: Close down.
- 3.0 : Afternoon session—Selected studio items, including Literary Selection by the Announcer.
- 4.30: Close down.
- 5.0 : Children's session, conducted by "Uncle Dave."
- 6.0 : Dinner session, "Columbia" hour.
Selection—H.M. Grenadier Guards Band, "New Sullivan Selection."
Waltz—Court Symphony Orchestra, "Destiny Waltz" (Baynes) (564).
- 6.12: Tacet.
- 6.15: Orchestral—Columbia Symphony Orchestra, "Idillio" (Lack) (01076).
Suite—New Queen's Hall Light Orchestra, "Petite Suite de Concert" (Coleridge-Taylor). 1—La Caprice de Nanette; 2—Demande et Reponse (02588).
- 6.26: Tacet.
- 6.30: Suite—New Queen's Hall Light Orchestra, "Petite Suite de Concert" (Coleridge-Taylor). 1—Un Sonnet d'amour; 2—La Tarantelle Fretillante (02589).
Wurlitzer organ solo—Terence Casey, "I'm Lonely" (Coates) (01501).
- 6.42: Tacet.
- 6.45: Dance Suite—H.M. Grenadier Guards Band, "Neil Gwynn Dances" (German). 1—Country Dance; 2—Pastoral Dance (01329).
Orchestral—Columbia Symphony Orchestra, "Spring Song."
Waltz—Symphony Orchestra, "Morgen Blatter" (Strauss) (9218).
- 6.58: Tacet.
- 7.0 : News and market reports.

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

8.0 : Chimes.

Band—Auckland Artillery Band, under conductorship of Mr. Wynne Smith, (a) "March Simplicity" (Hume); (b) Selection, "Tartan" (Rimmer).

- 8.14: Soprano—Miss Lillian Wood, "A Wedding in June" (Sanderson).
- 8.18: Organ—Jesse Crawford, "Singin' in the Rain" (Freed-Brown).
- 8.21: Cornet duet—Bandsmen C. and C. Thompson, "Link Divine."
- 8.28: Vocal quartet—The New Clarion Quartet, "Musical Switch."
- 8.32: Novelty—Auckland Artillery Band, "Three Blind Mice" (Douglas).
- 8.42: Bass—Mr. Duncan Black, "Out on the Deep" (Lohr).
- 8.46: Talk—Mr. A. B. Chappell, M.A., "Topical Talk."
- 9.1 : Evening weather forecast and announcements.
- 9.3 : Vocal quartet—The New Clarion Quartet, "Ukulele Lullaby."
- 9.7 : Band—The Auckland Artillery Band, selection, "Pique Dame."
- 9.17: Vocal duet—Miss Lillian Wood and Mr. Lambert Harvey, "A Night in Venice" (Lucantoni).
- 9.21: Euphonium solo—Bandsman T. Greenwood, "Village Blacksmith."
- 9.29: Contralto—Miss Beryl Smith, "Ring Bells, Ring" (Day).
- 9.33: Organ—Jesse Crawford, "Miss You" (Tobias) (H.M.V. EA644).
- 9.36: Vocal duet—Miss Beryl Smith and Mr. Duncan Black, "Spinning."
- 9.40: Band—Auckland Artillery Band, selection, "La Paloma" (Yradier).
- 9.46: Tenor—Mr. Lambert Harvey, "If I Might Come to You" (Squire).
- 9.50: Orchestral—New Mayfair Orchestra, "This Year of Grace" (Coward).
- 9.53: Vocal quartet—New Clarion Quartet, "Good Evening" (Smith).
- 9.57: Band—Auckland Artillery Band, march, "Rimetaka" (arr. Trunell).
- 10.2 : God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, JULY 2.

SILENT DAY.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, JULY 2.

- 3.0 : Afternoon Session Gramophone Recital.
- 4.25: Sports results.
- 4.30: Close down.
- 5.0 : Children's Hour from the Radio Olympia, Art Gallery, Durham Street, conducted by Scatterjoy and Uncle John and Peterkin.
- 6.0 : Return to Studio—Dinner Session Music, H.M.V. Hour.
Royal Albert Hall Orchestra, "Carmen Prelude Act 1" (Bizet).
National Symphony Orchestra, "Sylvia Ballet Cortège de Bacchus" (Delibes) (EB24).
Organ—Reginald Foort, "Schon Rosmarin" (Kreisler) (B2664).
- 6.12: Tacet.
- 6.15: Marek Weber's Orchestra, "Vienna by Night" (Komzak) (C1507).
Cello—Lauri Kennedy, "Hungarian Rhapsody" (Popper) (C1595).
- 6.27: Tacet.
- 6.30: Selection—National Symphony Orchestra, "Bohemian Girl" (Balfe).
Royal Albert Hall Orchestra, "Carmen Prelude Act 2" (Bizet).
Organ—Reginald Foort, "A Brown Bird Singing" (Haydn-Wood).
- 6.42: Tacet.
- 6.45: Royal Opera Orchestra, "Hungarian Dance No. 5" (Brāhms) (C1415).
Selection—H.M. Coldstream Guards, "H.M.S. Pinafore" (Sullivan).
- 6.57: Tacet.
- 7.0 : Presentation from the Radio Olympia Art Gallery, Durham Street. News session.
- 7.30: Addington Stock Market Reports.
Continuing from The Radio Olympia.
- 8.0 : Chimes.
Orchestral—Light Opera Orchestra, (Conductor Mr. Harold Beck), "Ramond" (Thomas).
- 8.9 : Mixed Quartet—Valencia Quartet, "When the Heart is Young" (Dugley Buck).
Bass—Mr. E. J. Johnson, "Prince Ivan's Song" (Allitsen).
- 8.16: Harp—Mr. H. Glaysher, "Sur La Reve De La Mer" (Oberthur).
- 8.22: Quartet—Valencia Quartet, "It Was a Lover and His Lass" (Moxley).
- 8.29: Brass Quartet—Woolston No. 1 Brass Quartet, selection from "Fidelio" (Beethoven).
- 8.34: Tenor—Mr. T. G. Rogers, "Silver Moon" (Adams).
- 8.38: Contralto—Miss Mary Taylor, "The Hills of Donegal" (with accompaniment by Light Opera Orchestra) (Sanderson).
- 8.42: Bells with orchestra, soloist Mr. Clarence Crawford and Orchestra, "Eventide at the Convent" (Pratt).
- 8.46: Mezzo-soprano—Miss Merle Miller, "In the Silence of the Night" (with orchestral accompaniment) (Rachmaninoff).
- 8.49: Quartet—Valencia Quartet, "The Parting Kiss" (Pinsuti).
- 8.53: Instrumental—Light Opera Orchestra, "Incidental Music from 'The Beggars Opera'" (Austin).
- 9.0 : Weather report and station notices.
- 9.2 : Return to 3YA studio for the following items:
Selection—Band of H.M. Coldstream Guards, "Martha" (Flotow).
- 9.10: Cello—Pablo Casals, "O Star of Eve" (Wagner) (DB1012).
- 9.14: Chorus—Light Opera Company, "Gems from 'The Bohemian Girl'" (Balfe) (EB9).
- 9.22: Cello—Pablo Casals, "The Mastersingers of Nuremberg" (Wagner) (arrgd. Wilhelmj) (DB1012).
- 9.26: Trio—Fritz and Hugo Kreisler and Michael Raucheisen, "Arioso Intermezzo" (Bizet) (arrgd. Kreisler) (DB1166).
- 9.30: Continuation of programme from "The Radio Olympia" in the Art Gallery, Durham Street.
Orchestral—Light Opera Orchestra, "Light Operatic Selection" (Monckton).

- 9.40: Presentation of Vocal and Instrumental Items from Comic Opera "Tom Jones," by the Salon Quartet by Edward German.
 Tenor and Orchestra—H. Blakeley and Salon Quartet, "On a January Morning" (German).
 Baritone—Mr. J. Graham Young, "West Country Lad" (with orchestral accompaniment) (German).
 9.47: Harp—Mr. H. Graysher, "Echoes of the Waterfall" (Thomas).
 9.53: Vocal Trio—Misses Corrie Aslin and Dulcie Mitchell and Mr. Graham Young, "Wisdom Says Festina Lente" (German).
 Madrigal—Salon Quartet, "Here's a Paradox for Lovers" (from Tom Jones) (German).
 9.57: Incidental music—Light Opera Orchestra, "Morris Dance" (German).
 Contralto—with Trio—Miss Dulcie Mitchell and Salon Quartet, "As All the Maids" (from "Tom Jones") (German).
 10.2: Incidental music, Light Opera Orchestra, "Gavotte" (from "Tom Jones") (German).
 Vocal Trio—Salon Trio, "You Have a Pretty Wit" (German).
 Soprano and Chorus—Miss Gorrie Aslin and chorus, "Love Maketh the Heart a Garden Fair" (from "Tom Jones") (German).
 10.10: Incidental music, Light Opera Orchestra, "Jig" (German).
 Baritone—Mr. J. Graham Young, "If Love's Content" (from "Tom Jones") (German).
 10.14: Brass Quartet—Woolston Brass Quartet, "Selection 'Norma'" (Bellini).
 Vocal Trio—Salon Trio, "Says a Well Worn Saw" (German).
 Quartet Finale—Salon Quartet, "Hark the Merry Marriage Bells" (from "Tom Jones" with orchestral accompaniment) (German).
 10.27: Orchestral—Light Opera Orchestra, (a) "Tin Soldiers" (Kockert); (b) "March" (from "Faust") (Gounod).
 God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, JULY 2.

- 3.0: Chimes. Selected Gramophone Items.
 3.15: Talk—Home Science Extension Department of Otago University, under auspices of 4YA Primary Productions Committee, "Making of 'Home-made Soap'."
 4.25: Sporting Results.
 4.30: Close down.
 5.0: Children's Hour, conducted by Big Brother Bill.
 6.0: Dinner Music, "Parlophone" Hour.
 Overture—Grand Symphony Orchestra, "Zampa" (Herold) (A4020).
 Waltz—Dajos Bela Orchestra, "Morgenblätter" (Strauss) (A4038).
 6.12: Tacet.
 6.15: Instrumental—Orchestra of the Opera Comique, Paris, "Scenes Pittoresques" (Massenet) (A4057).
 Waltz—Edith Lorand Orchestra, "Vienna Waltz" (Drda) (E10531).
 6.27: Tacet.
 6.30: Waltz—Dajos Bela Orchestra, "Marien Klänge" (Strauss) (A4038).
 Instrumental—Dajos Bela Orchestra, "Idelle" (Tosti) (A4015).
 Waltz—Edith Lorand Orchestra, "Merry Vienna" (Zishrer) (E10531).
 6.42: Tacet.
 6.45: Waltz—Edith Lorand Orchestra, "Song of Autumn" (Waldteufel).
 Waltz—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" (Roemberg).
 6.57: Tacet.
 7.0: News Session.
 7.15: Talk—Mr. L. McCaskill, under auspices of 4YA Primary Productions Committee, "Review of Journal of Agriculture."
 8.0: Chimes. Relay of concert programme from Christchurch Radio Olympia.
 10.30: Dance programme till 11 p.m.

Thursday, July 3

1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, JULY 3.

- 3.0: Afternoon session—Selected studio items, including Literary Selection by the Announcer.
 4.15: Talk—Home Science, "Rest and its Value." Talk prepared by Home Science Extension Service, Otago University.
 4.30: Close down.
 5.0: Children's session, conducted by "Peter Pan."
 6.0: Dinner session, "H.M.V." hour.
 Light Orchestral—Marek Weber and Orchestra, "Lehariana."
 Cello—Cedric Sharpe, "Air" (Pergolesi) (B3040).
 Band—Coldstream Guards, "Wedding of the Rose" (Jessel) (B3064).
 6.14: Tacet.
 6.15: Orchestral—Vienna Philharmonic Orchestra, "Morning, Noon and Night in Vienna" (Suppe) (C1667).
 Light Orchestra—New Mayfair Orchestra, "Five O'Clock Girl"
 6.27: Tacet.
 6.30: Orchestral—New Mayfair Orchestra, "Love Lies" (de Sylva) (C1658).
 Cello—Cedric Sharpe, "Twilight" (Friml) (B3040).
 Organ—Herbert Dawson, "Evansong" (Easthope Martin) (B2263).
 Band—H.M. Coldstream Guards, "Hobomoko Intermezzo" (Reeves).
 6.44: Tacet.
 6.45: Trio—De Groot (violin), A. Gibilaro (piano), J. Pacey (cello), "O Sole Mio" (Di Capua) (B2588).
 Organ—Herbert Dawson, "Idylle" (Edward Elgar) (B2263).

- Orchestral—Berlin State Opera Orchestra, "German Dances" (Mozart).
 6.57: Tacet.
 7.0: News and market reports.
 8.0: Chimes.
 Orchestral selection—Reg. Morgan's Orchestra, under conductorship of Mr. Reg. Morgan, "Duchess of Dantzic" (Caryl).
 8.9: Mezzo-contralto—Miss Cathleen Mulqueen, (a) "The Gates of If-ever" (Coates); (b) "The Bells of Twilight" (Forster).
 8.16: Flute solo—Mr. C. Hoffman, "Variations" (arr. Hoffman).
 8.21: Baritone—Mr. Reg. Morgan, "Moon Daisies" (Coates).
 8.25: Saxophone—Rudy Wiedoeft, "Melodie" (Tschalkowsky) (Col. 01472).
 8.29: Orchestral—Reg. Morgan's Orchestra, "Down Main Street" (Brown).
 8.33: Novelty entertainment—Mr. Elton Black and Miss Alice Bennetto, "Pierrot Fantasy, Part 1."
 8.45: Violin solo—Mr. Frank Parsons, "Hej Haj" (Drda)...
 8.51: Hawaiian—Irahoma Glee Club, "Na' Lili" (Kuahiwai) (Col. 01259).
 Kaalounahi Quartet, "Hawaii, where the Sunshine Smiles" (King).
 8.56: Orchestral—Reg. Morgan's Orchestra, "The Merry Widow" (Lehar).
 9.0: Evening weather forecast and announcements.
 9.2: Baritone—Mr. Reg. Morgan, "A Blackbird Singing" (Head).
 9.5: Saxophone—Rudy Wiedoeft, "Serenade—Badine" (Marie) (Col. 01472).
 9.10: Mezzo-contralto—Miss Cathleen Mulqueen, "Don't Hurry" (Sanderson).
 9.14: Trumpet—Mr. R. Sprowl, "La Reve D'Amour" (Golden).
 9.19: Novelty entertainment—Mr. Elton Black and Miss Alice Bennetto, "Pierrot Fantasy, Part 2."
 9.31: Programme of dance music by Reg. Morgan's Orchestra.
 11.0: Close down—God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, JULY 3.

- 3.0: Chimes. Selected studio items.
 3.15: Home Science, "Rest and its Value," talk prepared by Home Science Extension Service, Otago University.
 3.30 and 4.30: Sporting summary.
 4.55: Close down.
 5.0: Children's session, conducted by Uncle George.
 6.0: Dinner session—"Columbia" Hour:
 Waltz—Symphony Orchestra, "Artists' Life" (Strauss) (02577).
 Instrumental—Columbia Symphony Orchestra, "Al Fresco" (Herbert).
 Foxtrot—La Nuova Orchestra, "Di Napoli" (Romani) (3066).
 Band—H.M. Grenadier Guards, "La Paloma" (Yradier) (0987).
 6.18: Tacet.
 6.15: Instrumental—Ketelbey's Orchestra, "In a Monastery Garden" (02688).
 Waltz—Jacque Jacobs's Ensemble, "Over the Waves" (Rosas) (02556).
 6.27: Tacet.
 6.30: Instrumental—Columbia Symphony Orchestra, "Bandinage" (Herbert).
 Waltz—Royal Serbian Tambouritzza Orchestra, "Kosovo" (3066).
 Waltz—Symphony Orchestra, "Tales from the Vienna Woods" (Strauss).
 March—H.M. Grenadier Guards Band, "Twist and Twirl" (Kottaun).
 6.43: Tacet.
 6.45: Waltz—Royal Philharmonic Orchestra, "Blue Danube" (Strauss).
 Waltz—Jacque Jacobs's Ensemble, "España" (Waldteufel) (02560).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Talk—The sixth of a series of musical talks by Mr. L. D. Webster, "Music and the Gramophone."
 8.0: Chimes. A relay from the Concert Hall of Messrs. Hamilton Nimmo and Son's, Ltd., of a special programme to celebrate the official opening of their new building and concert hall.
 Official welcome by the manager of Messrs. Hamilton Nimmo and Sons, Ltd., to the assembled guests.
 During the course of the programme Mr. Robert Parker, C.M.G., the eminent musician, Mr. D. J. McGowan, of the Wellington Chamber of Commerce, and Mr. W. P. McLachlan, President of the Wellington Competitions Society, will also speak.
 Trio—Madame Evelyn de Mauny, Mr. Leon de Mauny, and Mr. Claude Tanner, "First Movement, Trio in D Minor" (Arensky).
 Soprano—Miss Ena Rapley, "Pipes of Pan" (Monckton).
 Tenor—Mr. Edwin Dennis, "Al Pays" (Holmes).
 Cello—Mr. Claude Tanner, (a) "Memoire" (Popper), (b) "Andaluza."
 Contralto—Miss Madge Freeman, "Fisher Lad" (Day).
 Piano solo—Madame Evelyn de Mauny, selected.
 Humorous sketch—Madame Augenie Dennis, "The Way to Accept Him" (Anon.).
 Violin and piano—Madame Evelyn de Mauny and Mr. Leon de Mauny, "First Movement, Sonata in G" (Grieg).
 Tenor—Mr. Edwin Dennis, "Like Stars Above" (Squire).
 Duet—Misses Ena Rapley and Madge Freeman, "Sing, Joyous Bird."
 9.30 (approx.): From the studio: Selection—The Band of the Grenadier Guards, "The Shamrock Selection" (arr. Myddleton) (Col. 02542).
 9.38: Baritone—Mr. C. Wilkie, "The Wheel Tapper's Song" (Charles).
 9.42: Cornet duet—Corporal W. West and G. Regan and Band of H.M. Grenadier Guards, "The Two Little Finches" (Kling) (Col. 02539).
 9.46: Baritone—Mr. C. Wilkie, (a) "Give a Man a Horse He Can Ride" (Liddle), (b) "Just Smiling" (Wells).
 9.52: Band selection—Band of H.M. Grenadier Guards, "New Sullivan Selection" (arr. Dan Godfrey) (Columbia 02731).
 10.0: God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, JULY 3.

- 3.0: Afternoon session—Gramophone recital.
 3.15: Home Science—"Rest and its Value," talk prepared by the Home Science Extension Service Department, Otago University.

- 4.25: Sports results.
 4.30: Close down.
 From "The Radio Olympia," the Art Gallery, Durham Street:
 5.0: Children's hour—"Ladybird and Uncle Frank" return to 3YA Studio.
 6.0: Dinner music—"Columbia" Hour: Orchestral—Halle Orchestra, "Capriccio Espagnole" (Rimsky-Korsakov) (02912-3).
 6.12: Tacet.
 6.15: Orchestral—Menorah Symphony Orchestra, "Bar Kochba" Selection. Piano—Ignaz Friedman, "Minuetto from Suite" (J. Suk) (04346). Orchestral—New York Symphony Orchestra, "Entrance of the Little Fauns" (Pierne) (02907).
 6.28: Tacet.
 6.30: Band—B.B.C. Wireless Military Band, "Gathering Peascods—Folk-dance" (arr. Cecil J. Sharp) (01711). Violin—Yelly D'Aranyi, "Souvenir" (Drdla) (03644). Orchestral—Orchestra de la Societe des Concerts du Conservatoire, Paris, "Le Route d'Omphale" (Saint-Saens) (02926).
 6.42: Tacet.
 6.45: Band—B.B.C. Wireless Military Band, "Epping Forest Folkdance." Piano—Ignaz Friedman, "Berceuse" (Chopin) (04346). Orchestral—Berlin State Orchestra, "Wiener Blut" (Strauss) (04337).
 6.58: Tacet.
 7.0: Continuation from "The Radio Olympia" Art Gallery, Durham Street.
 7.30: Talk—Review of Journal of Agriculture, arranged by 3YA Primary Productions Committee.
 Continuing from "Radio Olympia," Art Gallery, Durham Street: Evening session.
 8.0: Chimes. Classical and Grand Opera Programme.
 Overture—3YA Symphony Orchestra (Conductor, Mr. Harold Beck), "Rosamunde" (Schubert).
 8.10: Mixed quartet—The Melodious Four, "A Spring Song" (Pinsuti). Bass—Mr. T. D. Williams, Sea Songs, (a) "Hell's Pavements" (Keel), (b) "A Sailor's Prayer" (Keel).
 8.19: Soprano with violin, 'cello, and piano—Miss Frances Hamerton, "Love's Greeting" (from "Flora's Holiday") (with violin, 'cello, and piano accompaniment) (Lane Wilson).
 8.22: Duet—Flute and trumpet, with orchestra: Duettists, Messrs. Albert Hutton and Herbert Fox, "Serenade" (with Symphony Orchestra).
 8.27: Tenor—Mr. Russell Sumner, (a) "Bonnie Wee Thing" (arr. Lehmann), (b) "My Lovely Celia" (Carey). Contralto—Miss Belle Renaut, "O Love, from Thy Power" (from "Samson and Delilah"—Saint-Saens).
 8.37: Piano—Miss Bessie Pollard, "Mazurka" (Scriabine).
 8.40: Bass-baritone—Barend Harris, "The Two Grenadiers" (with explanatory remarks) (sung in English); "That Dear Old Southland of Mine" (in English).
 8.50: Orchestral—3YA Symphony Orchestra, "Symphony Antar" (Rimsky-Korsakov).
 8.54: Duet, soprano and tenor—Melodious Duo, "Trot Here and There" (from "Veronique"—Messenger).
 9.0: Weather report and station notices.
 9.2: Return to 3YA Studio for musical recordings:
 Mandolin band—Circolo Mandolinistico, "Semiramide Overture."
 9.10: Male choir—Wiener Schubertbund, "Der Tanz" (Schubert) (02836).
 9.14: Violin—Emmanuel Bay, (a) "Slavonic Dance No. 2 in E Minor" (Dvorak), (b) "Hungarian Dance No. 1" (Brahms) (09504).
 9.22: Male choir—Wiener Schubertbund, "Die Nacht" (Schubert) (02836).
 9.26: Band—H.M. Grenadier Guards, "Nell Gwynn Dance No. 3" (German).
 9.30: Returning again to the "Radio Olympia," Art Gallery, Durham Street:
 Orchestral suite—3YA Symphony Orchestra, from "The Nutcracker Suite": (1) March, (2) Dance of the Flutes, (3) Arab Dance, (4) Russian Dance (Tchaikowsky).
 9.40: Soprano and orchestra—Soloist, Madame Gower Burns, "Roberto, O Tu Che Adoro" (From "Roberto Il Diavolo"—Meyerbeer) (sung in Italian with orchestral accompaniment).
 9.44: Mixed quartet—Grand Opera Quartet, "Fairest Daughter of the Graces" (from "Rigoletto"—Verdi).
 9.48: Flute and clarinet and orchestra—Messrs. F. Bullock and M. Withers, "Piccolo Piccolo" from "The Waltz Dream" (Strauss).
 9.52: Bass-baritone—Barend Harris, Russian and Jewish songs with explanatory remarks: (a) "Notchinka" (Night) (sung in Russian), (b) "Kol Nidrei" (Sung in Hebrew).
 10.2: Piano and orchestra—Soloist, Miss Bessie Pollard and orchestra, "Concerto in A Minor, First Movement" (Grieg).
 10.14: Tenor and orchestra—Soloist, Mr. Ernest Rogers, aria, "Lend Me Your Aid" (from "The Queen of Sheba"—Handel), with orchestral accompaniment).
 10.19: Vocal sextet—Grand Opera Sextet, "What from Vengeance Now Restrains Me?" (from "Lucia di Lammermoor"—Donizetti) (with instrumental accompaniment).
 10.23: Orchestral—3YA Symphony Orchestra, "Dance of the Archers." God Save the King.
 4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, JULY 3.
 SILENT DAY.

Friday, July 4

1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, JULY 4.

- 3.0: Afternoon session—Selected studio items, including literary selection by the Announcer.

- 4.30: Close down.
 5.0: Children's session, conducted by "Nod" and "Aunt Jean."
 6.0: Dinner session—"Columbia" Hour.
 Selection—B.B.C. Wireless Symphony Orchestra, "La Boutique Fantasque" (Respighi—arrgd. Carr) (Regal G30018).
 'Cello—W. H. Squire, "Humoresque" (Dunkler-Squire) (04192).
 6.12: Tacet.
 6.15: J. H. Squire's Celeste Octet, "Chant Sans Paroles" (Tchaikowsky). Suite—Plaza Theatre Orchestra, "Gipsy Suite": (1) Valse, Lonely Life; (2) Allegro, The Dance (German) (02537).
 6.27: Tacet.
 6.30: Suite—Plaza Theatre Orchestra, "Gipsy Suite": (1) Menuetto, Love Duet; (2) Tarantella, The Revel (German) (02538).
 Madrid Symphony Orchestra, "Dance of the Neighbours" (de Falla).
 6.42: Tacet.
 6.45: Venetian Players String Quartet, (a) "Romanza" (Mozart); (b) "Allegro" (Mozart) (Regal G20467).
 Pianoforte—Ignaz Friedman, "Romance in E Flat" (Rubinstein).
 Basle Symphony Orchestra, "Rosamunde Entr'acte No. 2" (Schubert).
 6.57: Tacet.
 7.40: Talk—Mr. W. E. G. Wheeler, "Esperanto."
 8.0: Chimes.
 Instrumental trio—Studio Trio, "First Movement Trio G Major."



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- 8.10: Soprano—Miss Patricia McLeod, (a) "A Pastoral" (Carey); (b) "Aubade" (Chaminade).
 8.17: Instrumental trio—Studio Trio, "Hymn to the Sun."
 8.21: Elocutionary sketches—Mr. and Mrs. J. W. Bailey, (a) The Dramatic Recital, "Congo" (a study of the negro race): (1) Their Basic Savagery, (2) Their Irrepressible High Spirits, (3) The Hope of Their Religion (Lindsay); (b) Witches Scene from "Macbeth."
 8.34: Piano—Mr. Cyril Towsey, "Andante from Sonata in G Minor."
 8.40: Baritone—Mr. Ian Devereux, (a) "All Joy be Thine" (Sanderson); (b) "Inter Nos" (Macfadyen).
 8.47: Instrumental trio—Studio Trio, "Song Without Words."
 8.51: Contralto—Mrs. L. M. Keven, (a) "Serenade" (Woodforde-Finden); (b) "Flower of My Heart" (Woodforde-Finden).
 8.58: Evening weather forecast and announcements.
 9.0: Instrumental trio—Studio Trio, "Bouree in G Minor" (Bach).
 9.4: Soprano—Miss Patricia McLeod, "Chanson Provencale" (Del Acqua).
 9.8: Instrumental Trio, "First Movement (abridged) Brandenburg Concerto" (Bach).
 9.12: Baritone—Mr. Ian Devereux, "Life and Death" (Coleridge-Taylor).
 9.16: Elocutionary sketches—Mr. and Mrs. J. W. Bailey, comedy scene from "The Taming of the Shrew" (Shakespeare).
 9.21: Instrumental trio—Studio Trio, "Entr'acte Waltz" (Hellmesberger).
 9.27: Contralto—Mrs. L. M. Keven, "Lithuanian Song" (Chopin).
 9.31: Lecture—Mr. Karl Atkinson, gramophone lecture-recital, "The Glorious Fourth" (a musical anniversary).

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, JULY 4.

- 3.0: Chimes. Selected studio items.
 3.30 and 4.30: Sporting summary.
 4.55: Close down.
 5.0: Children's session, conducted by Big Brother Jack.
 6.0: Dinner session—"Parlophone":
 Overture—Berlin State Opera Orchestra, "Mignon" (Thomas) (E10557)
 Instrumental—Grand Symphony Orchestra, "Tales of Hoffman—Barcarolle" (Offenbach) (A4061).
 6.12: Tacet.
 6.15: Fantasia—Edith Lorand Orchestra, "Faust" (Gounod) (E10579).
 Piano—Karol Szreter, "Fledermaus" (Strauss) (A4082).
 6.27: Tacet.
 6.30: Berlin State Opera Orchestra, "Italiana in Algeria" (Rossini) (A4158)
 'Cello—Oralia de Castro, "Nocturne in E Flat" (Chopin) (E10581).
 6.42: Tacet.
 6.45: Overture—Grand Symphony Orchestra, "Fra Diavolo" (Auber).
 Instrumental—Grand Symphony Orchestra, "Tales of Hoffman—Entr'acte and Minuet" (Offenbach) (A4061).
 6.57: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Mr. D. McKenzie, "The Laws of Rugby."
 8.0: Chimes. An operatic and miscellaneous programme featuring the Quartet and the 2YA Orchestra. (Note: During the course of this programme there will be a relay of a sound film feature from the Majestic Theatre.)
 Overture—2YA Orchestra (Conductor, Signor A. P. Truda), "St. Hubert" (Fucik).
 Tenor—Mr. W. Roy Hill, "Salve Dimora" ("Faust"—Gounod).
 Piano—Mr. Norman Izzett, (a) "Etude in E Major" (Chopin), (b) "Capriccio" (Brahms).
 Bass with chorus—Mr. W. Binet Brown and Lyric Quartet, "The Calf of Gold" ("Faust"—Gounod).
 Elocutionary—Miss Rosa Mills, "The Denominational Garden."
 Selection—2YA Orchestra, "Sappho" (Massenet).
 Duet—Messrs. Chas. Williams and Will Goudie, "Ah! Mimi, You Never will Come Back to Me" ("La Boheme"—Puccini).
 Mezzo-soprano—Miss Ailsa Dillon, "Il Segreto" ("Lucrezia Borgia"—Donizetti).
 Violin—Marjorie Hayward, "Meditation" ("Thais"—Massenet).
 Quartet—The Lyric, "The Heart Bowed Down" ("Bohemian Girl").
 Selection—2YA Orchestra, "Gelsa" (Jones).
 Weather forecast and announcements.
 Tenor—Mr. Chas. Williams, "An English Rose" ("Merrie England").
 Band—Creators' Band, "Semiramide Overture" (Rossini) (H.M.V.).
 Baritone—Mr. Will Goudie, "Bois Epais" ("Amadis"—Lully).
 Instrumental—2YA Orchestra, (a) "Serenata" (Rossini), (b) "Tarentella" (Rimmer).
 Elocution—Miss Rosa Mills, "In the Garden" (Anon.).
 Quartet—The Lyric, "Anvil Chorus" ("Il Trovatore"—Verdi).
 'Cello—Beatrice Harrison, "Viennese Melody" (Kreisler) (H.M.V.).
 Mezzo-soprano—Miss Ailsa Dillon, "Gavotte" ("Manon"—Massenet).
 Concerted with orchestra—Light Opera Company, "Vocal Gems from 'Maritana'" (Wallace) (H.M.V. C1693).
 Concert valse—2YA Orchestra, "Je t'Aime" (Waldteufel).
 God Save the King.

3YA, CHRISTCHURCH (930 KILOCYCLES)—FRIDAY, JULY 4.

- 3.0: Afternoon Session Gramophone Recital from the Studio.
 4.25: Sports results
 4.30: Close down.
 5.0: Children's Session from the Radio Olympia, Art Gallery, Durham Street, conducted by Chuckie and Aunt Pat.

- 6.0: Dinner Session, "H.M.V." Hour.
 March—American Legion Band, "The Conqueror" (Telke) (2909).
 Selection—Savoy Orpheans, "Lido Lady" (Rodgers) (C1810).
 6.12: Tacet.
 6.13: New Light Symphony Orchestra, "Rustic Wedding Symphony" (Goldmark) (C1210).
 Victor Olof Sextet, "To a Water Lily" (Macdowell) (B2690).
 New Light Symphony Orchestra, "Spanish Dance" (Moszkowski).
 Wurlitzer Organ—Reginald Foort, "Just Like a Darby and Joan" (Gilbert) (B2775).
 6.28: Tacet.
 6.30: Jack Hylton's Orchestra, "The Selfish Giant" (Coates) (C1253).
 Victor Olof Sextet, (a) "To a Wild Rose"; (b) "In Autumn" (Macdowell) (B2690).
 Violin and Wurlitzer Organ—De Groot and Terence Casey, "Parted" (Tosti) (B2920).
 6.44: Tacet.
 6.45: Victor Symphony Orchestra, "Dance of the Hours" (Ponchielli).
 Wurlitzer Organ—Reginald Foort, "Love Lies" (Kellard) (B2775).
 March—American Legion Band, "Iowa Corn Song" (arrgd. Beeston).
 6.58: Tacet.
 7.0: Returning back to Radio Olympia at the Art Gallery, Durham Street.
 News session.
 8.0: Chimes.
 Continuing from the Radio Olympia, Art Gallery, Durham Street.
 Overture—Salon Orchestra (Conductor Harold Beck) "Stradella" (Flotow).
 8.8: Bass—Mr. R. S. H. Buchanan, "Come to the Cook-house Door" (Wolfeley-Charles).
 8.12: Humour—Mr. George Titchener, "Modern Languages" (M.S.).
 8.18: Steel Guitars—Elaine Moody's Hawaiian Instrumental Trio, (a) "Waltz of Love" (M.S.); (b) "All Because of You" (with vocal refrain by Elaine Moody) (Anahu).
 8.27: Contralto—Mrs. D. W. Stallard, (a) "Dreaming of Home" (Besley).
 8.30: Humorous Recitation—Mr. H. Instone, "Courtin' Betty Eglinton" (own arrangement).
 8.36: Piano—Mr. Les Grummitt, "Improvisations and Syncopations" (own arrangement).
 8.40: Tenor and Orchestra, Mr. C. R. Williamson, "At Dawning" (with Orchestral Accompaniment) (Cadman).
 8.45: Humour—Mr. George Titchener, "Impressions" (M.S.).
 8.40: Instrumental Octet, 3YA Studio Instrumental Octet, "Blue Danube" (waltz) (Johann Strauss).
 8.59: Weather Report and Station Notices.
 Return to 3YA Studio for Musical recordings.
 9.1: Male Quartet—Kanawha Singers, "Keep in De Middle of the Road" (trdii.) (Brunswick 337).
 9.4: Medley—Al Goodman and His Orchestra, "Hold Everything" (de Sylva-Brown-Henderson) (Brunswick 20090).
 9.8: Organ, with Xylophone—Lew White, (a) "Cryin' for the Carolines" (Warren); (b) "Have a Little Faith in Me" (Warren) (4743).
 9.14: Medley—Al Goodman and His Orchestra, "Follow Thru" (de Sylva-Brown and Henderson).
 9.18: Violin—Frederic Fradkin, "Frasquita" (Lehar) (4528).
 9.21: Violin, Harp and Organ—Frederic Fradkin, "The Swan" (St. Saens).
 9.24: March—Brunswick Military Band, "U.S. Field Artillery" (Sousa).
 9.27: Male Trio—Earl Burnett's Biltmore Trio, "Lucky Me Lovable You" (Yellen-Ager) (4616).
 9.30: Return to the Radio Olympia at the Art Gallery, Durham Street.
 Orchestral—Salon Orchestra, "Musical Comedy Selections, 'Wild Flower'" (Grant, arrgd. Youmans and Stothart).
 9.41: Bass—Mr. R. S. H. Buchanan, (a) "On the Ginchy Road" (Lauri Edward); (b) "Time To Go" (Sanderson).
 9.47: Scottish Song and Patter—Mr. Jock Lockhart, "It's a Fine Thing to Sing" (Lauder).
 9.53: Steel Guitars and Ukulele—Elaine Moody's Hawaiian Instrumental Trio, (a) "Hawaiian Twilight" (Vandersloot); (b) "Hanalei Bay" (Alohika) (Both with vocal refrain by Elaine Moody).
 10.0: Contralto and Orchestra—Mrs. D. W. Stallard, "Love's Old Street Song" (with orchestra) (Molloy).
 10.4: Humorous Recitation—Mr. H. Instone, "The Dames Patter" from a pantomime "The Duck Farm" (Own Arrangement).
 10.9: Instrumental Octet, 3YA Studio Instrumental Octet, "Intermezzo" from "Cavalleria Rusticana" (Mascagni).
 10.13: Tenor—Mr. C. R. Williamson, (a) "A Dream" (Bartlett); (b) "Love's Garden of Roses" (Haydn-Wood).
 10.19: Scottish Song and Patter—Mr. Jock Lockhart, "Bits and Pieces" (Own Arrangement).
 10.25: Dance and Jazz Foxtrot, Salon Orchestra, (a) "Grasshoppers' Dance" (Bucalossi); (b) "Goblin Blues" (Monte Carlo).
 10.30: Dance programme from the Studio, "Brunswick."
 Foxtrot—The A and P Gypsies, "Gypsy Dream Rose" (Kendis-Samuels-Youmans) (4680).
 Foxtrot—Colonial Club Orchestra, "Why Do You Suppose" (Hart-Rodgers) (4554).
 Foxtrot—Bob Haring and His Orchestra, "Under a Texas Moon" (Perkins) (4680).
 10.39: Vocal—Dick Robertson—"Lady Luck" (Perkins) (4592).
 Foxtrot—Colonial Club Orchestra, "My Man is on the Make" (Hart-Rodgers) (4554).
 Foxtrot—Ben Bernie and His Orchestra, "The One Girl" (Youmans).
 Waltz—Carter's Orchestra, "Old Virginia Moon" (Crawford-Kahn).

- Foxtrot—Abe Lyman and His California Orchestra, "Lucky Me Loveable You" (Yellen-Ager) (4609).
 Foxtrot—Fred Hamm and His Orchestra, "We Love Us" (Sanders-Moore) (4689).
 Foxtrot—Abe Lyman and His California Orchestra, "Love Ain't Nothin' But the Blues" (Goodwin-Alter) (4609).

11.0 : God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, JULY 4.

- 3.0 : Chimes. Selected gramophone items.
 3.15: Talk—Miss Buccleugh, "Fashions."
 4.25: Sporting results.
 4.30: Close down.
 5.0 : Children's hour, conducted by Aunt Shella.
 6.0 : Dinner music—"Columbia" Hour.
 Overture—Basle Symphony Orchestra, "Der Freischutz" (Weber).
 6.12: Tacet.
 6.15: Instrumental—J. H. Squire's Celeste Octet, "The Grasshoppers Dance."
 Instrumental—J. H. Squire's Celeste Octet, "The Butterfly" (Bendix).
 Musical Art Quartet, "To a Wild Rose" (MacDowell) (01506).
 Violin—Yvonne Curti, "Madrigale" (Simonetti) (01529).
 6.27: Tacet.
 6.30: Instrumental—J. H. Squire's Celeste Octet, (a) "I Love the Moon" (Rubens); (b) "Two Eyes of Grey" (McGeoch) (01213).
 Instrumental—J. H. Squire's Celeste Octet, (a) "Amoureuse Valse" (Berger); (b) "Valse Bleue" (Margis) (3643).
 6.42: Tacet.
 6.45: Instrumental—J. H. Squire's Celeste Octet, "Valse Caprice."
 Cello—W. H. Squire, "Sarabande" (Seilzer) (04283).
 Instrumental—J. H. Squire's Celeste Octet, "Perpetuum Mobile."
 6.57: Tacet.
 7.0 : News session.
 8.0 : Chimes. Relay of concert programme from Christchurch Radio Olympia.
 10.30: God Save the King.

Saturday, July 5

1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, JULY 5.

- 2.45: Relay—Rugby Football Match from Eden Park. Announcer: Mr. Gordon Hutter.
 4.30: Close down.
 5.0 : Children's Session, conducted by Cinderella.
 6.0 : Dinner Session, "Parlophone" Hour.
 Selection—Edith Lorand Orchestra, "The Vagabond King" (Frml).
 Waltz—Dajos Bela Orchestra, "The Swallows" (Strauss) (A4010).
 6.12: Tacet.
 6.15: Selection—Frank Westfield's Orchestra, "Chu Chin Chow" (Norton).
 Orchestral—Dajos Bela Orchestra, "O Sole Mio" (arrgd. Lindeman).
 Wurlitzer Organ—Leslie Harvey, "Absent" (Metcalf) (A2728).
 6.29: Tacet.
 6.30: Instrumental—Dajos Bela Orchestra, (a) "Oh, Spring, How Fair Thou Art" (Lincke); (b) "Songs D'Amour Apres Le Bal" (Ozibulka).
 Instrumental—Dajos Bela Orchestra, "Humoresque" (Dvorak).
 6.42: Tacet.
 6.45: Dance orchestra—Dorsey Bros. Orchestra, "Was it a Dream?" (Cowell) (A2567).
 Wurlitzer Organ—Leslie Harvey, "Until" (Sanderson) (A2728).
 Waltz—Dajos Bela Orchestra, "Faust" (Gounod) (A4010).
 6.55: Tacet.
 7.0 : News and Market Reports.
 8.0 : Chimes.
 Overture—Marek Weber and His Orchestra, "Leheriana" (Geiger).
 8.9 : Tenor—Mr. Roger Errington, "Serenade" (Schubert).
 8.13: Overture—1YA Orchestral Octet, under conductorship of Mr. Eric Waters, "Martha" (Flotow).
 8.22: Band—H.M. Coldstream Guards, "Teddy Bears Picnic" (Bratton).
 8.25: Novelty Trio—The Snappy Three, (a) "Louise" (Whiting); (b) "In a Little Love Nest" (Tucker).
 8.33: Orchestral—1YA Orchestral Octet, (a) "A Forest Wooing" (Ancliffe); (b) "Funeral March of a Bumble Bee" (Marsden).
 8.42: Vocal with Spanish guitar, Mr. W. L. Benbow, (a) "Maori Hula Medley" (Own composition); (b) "Ninipo—Hawaiian Hula Song" (unknown).
 8.48: Organ—Jesse Crawford, "Roses of Yesterday" (Berlin).
 8.51: Selection—1YA Orchestral Octet, "Mignon" (Thomas).
 8.57: Male Quartet—National Cavaliers, "Beautiful" (Gillespie) (EA430).
 9.0 : Weather Forecast and Announcements.
 9.2 : Orchestral—1YA Orchestral Octet, "Tone Poem The Selfish Giant" (Coates).
 9.12: Tenor—Mr. Roger Errington, (a) "I Hear You Calling Me" (Marshall); (b) "Sally in Our Alley" (Carey).
 9.19: Band—H.M. Coldstream Guards, "Down South" (Myddleton).
 9.22: Novelty Trio—Snappy Three, (a) "Piano" selected; (b) "A Kiss, a Caress, and Then Adieu"; (c) "Latest Hit" (all by Sharp).
 9.32: Orchestral—1YA Orchestral Octet, "Turkish Patrol" (Michaelis).
 9.37: Vocal with Spanish guitar, Mr. W. L. Benbow, (a) "Changeable Woman" (own composition); (b) "Al Jolson's Melodies Medley" (Al Jolson).

- 9.45: Organ—Jesse Crawford, "Just a Night For Meditation" (Lewis-Young-Pollack) (H.M.V. EA443).
 9.48: Male Quartet, The Revellers, "O Lucindy" (Hollingsworth).
 9.51: Orchestral—1YA Orchestral Octet, (a) "Foxtrot Dear on a Night Like This" (Conrad); (b) "Foxtrot Bells of St. Mary's" (Allan).
 10.0 : Programme of Dance Music, "H.M.V." Hour.
 Foxtrot—Victor Arden-Phil Ohman and Their Orchestra, "How Am I To Know?" (Parker-King) (EA700).
 Foxtrot—New Mayfair Dance Orchestra, "Mickey House" (Carlton).
 Foxtrot—Waring's Pennsylvanians, "Alma Mammy" (Marion-Whiting).
 Foxtrot—Jack Hylton's Orchestra, "House on the Hilltop" (Mayer).
 Foxtrot—Leo Reisman's Orchestra, "At Close of Day" (Klages-Greer-Broones) (EA687).
 10.15: Vocal—Mildred Hunt, "Sleepy Valley" (Sterling-Honley) (EA184).
 Foxtrot—Bernie Cummins and His Hotel Orchestra, "When a Woman Loves a Man" (Rose-Rainger) (EA712).
 Foxtrot—Nat Shilkret and His Orchestra, "Georgia Pines" (Trent-de-Rose) (EA687).
 Waltz—Irving Aaronson and His Commanders, "The Land of Going To Be" (Goetz-Kollo) (EA678).
 10.27: Foxtrot—Arcadians Dance Orchestra, "If I Had My May" (Wagner-Green) (EE190).
 Foxtrot—Ted Wem's Orchestra, "Miss Wonderful" (Bryan-Ward).
 Foxtrot—The Rhythmic Eight, "Welcome Home" (Clarke-Akst).
 Vocal—Mildred Hunt, "S'Posin'" (Razaf) (EE184).
 10.39: Foxtrot—Leo Reisman's Orchestra, "Charming" (Grey-Stothart).
 Foxtrot—Henry Busse's Orchestra, "I Came to You" (Conrad-Mitchell-Gottler) (EA700).
 Waltz—Leo Reisman's Orchestra, "Shepherd's Serenade" (Grey-Stothart) (EA688).
 10.48: Foxtrot—New Mayfair Dance Orchestra, "The Doll's House" (Butler-Andrews) (B5754).
 Foxtrot—Leo Reisman's Orchestra, "A Year From To-day" (Jolson-Dreyer-McDonald) (EA685).
 Foxtrot—Jack Hylton's Orchestra, "Dreamy Honolulu" (Cumble-West) (EA679).
 Foxtrot—Bernie Cummins and His Hotel Orchestra, "Cooking Breakfast for the One I Love" (Rose-Tobias) (EA712).
 11.0 : God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, JULY 5.

- 2.45: Chimes.
 Running description of the second Rugby Test match between Britain and New Zealand, on relay from Christchurch.
 5.0 : Chimes. Children's session, conducted by Uncle Toby.
 6.0 : Dinner music session, "H.M.V." hour.
 Waltz—International Concert Orchestra, "Over the Waves" (Rosas).
 Orchestral—Paul Whiteman and His Concert Orchestra, "High Water."
 Hawaiian—Hilo Hawaiian Orchestra, "My Hula Love" (Kealakai).
 Orchestral—Zonophone Salon Orchestra, "Simple Aveu" (Thome).
 6.13: Tacet.
 6.15: Orchestral—Paul Whiteman and His Orchestra, "Mississippi Suite."
 Organ—Edward O'Henry, "Chant Sans Paroles" (Tchaikowsky).
 Orchestral—Zonophone Salon Orchestra, "Narcissus" (Nevin).
 6.29: Tacet.
 6.30: Waltz—International Concert Orchestra, "Danube Waves" (Ivanovici).
 Hawaiian—Hilo Hawaiian Orchestra, "Kawaihau Waltz" (Kealakai).
 Orchestral—Paul Whiteman and His Orchestra, "Caprice Futuristic."
 Organ—Edward O'Henry, "Ca C'est Madrid" (O'Henry) (B3094).
 6.44: Tacet.
 6.45: Orchestral—Hylton's Orchestra, "Good Old Songs Selection" (C1592).
 Orchestral—International Concert Orchestra, "Barcarolle" ("Tales of Hoffman") (Offenbach) (B2377).
 Orchestral—New Light Symphony Orchestra, "Cavalleria Rusticana" (Intermezzo) (Mascagni) (B2377).
 6.59: Tacet.
 7.0 : News session, market reports and sports results.
 A special Manx programme in honour of Tynwald Day, The National Day of Manx Race.
 8.0 : Chimes.
 Overture—The Salon Orchestra (Conductor, Mr. M. T. Dixon), "Keltie Suite" (Foulds).
 8.9 : Choir and organ—London Manx Choir, "Ellan Vannin" (Manx National Song) (arr. Poulter) (Edison Bell 4841).
 8.12: Solo and chorus—Mr. A. G. Flanagan and Melodie Four, "Ramsay Town" (Crabb).
 8.16: Choir—London Manx Choir, "Manx Fisherman's Hymn" (Harvest of the Sea) (Traditional) (Edison Bell 4840).
 8.19: Talk—Mr. T. E. Corkill, President of the Manx Society, "The Isle of Man."
 8.34: Shanty—Mr. R. S. Allwright and Melodie Four, "Steamers Three."
 8.38: Piano—Mr. M. T. Dixon, "Manx Airs" (Wood).
 8.45: Song—Miss Nora Gray, "O. What if the Fowler my Blackbird has Taken" (arr. Gill).
 8.49: Bass—Mr. W. W. Marshall, "When Childer Plays" (Davis).
 8.54: Recital—Mr. T. E. Corkill, "A Recital in Dialect."
 8.58: Baritone—Mr. W. McHarrie, "Ny Kirree Fo Naughtey" (The Sheep under the Snow) (Traditional) (Edison Bell 4840).
 9.1 : A Brief Address in Manx by Mr. T. E. Corkill, followed by The Manx National Anthem, sung by the London Manx Choir. Adopted by W. H. Gill (Edison Bell 4841).
 9.4 : Weather report and announcements.

- 9.6 : Instrumental—Salon Orchestra, "Request Item."
 9.14: Quartet—Melodie Four, "Down at the Huskin' Bee" (Wilkins).
 9.18: Novelty piano—Mr. Claude Bennett, (a) "Sleepy Piano" (Magere);
 (b) "Humorestless" (Confrey).
 9.23: Tenor—Mr. Sam Duncan, "Songs My Mother Taught Me" (Dvorak).
 9.27: Instrumental—Salon Orchestra, "Selection—Gloriana" (Frini).
 9.35: Humour—Mr. Will Bishop will entertain at the piano.
 9.45: Soprano—Miss Nora Gray, "Break o' Day" (Sanderson).
 9.49: Novelty piano—Mr. Claude Bennett, "Ivory Lace" (Alter).
 9.53: Tenor—Mr. Frank Bryant, "When You Come to the End of the Day."
 9.57: Quartet—Melodie Four, "Request Item."
 10.1 : Instrumental—Salon Orchestra, "Dance Novelettes."
 10.6 : Dance programme, "Brunswick" hour.
 Foxtrot—Abe Lyman and His California Orchestra, "Another Night."
 Foxtrot—Meyer Davis' Hotel Astor Orchestra, "If I Had My Way."
 Foxtrot—Abe Lyman and His California Orchestra, "I'm Only Mak-
 ing Believe" (Davis-Coots) (4555).
 Foxtrot—Chic Scoggin and His Pla-mor Orchestra, "If I Could Write
 a Song" (Fulcher) (4654).
 Waltz—Meyer Davis' Hotel Astor Orchestra, "There Must be Some-
 body Waiting for Me" (Donaldson) (4603).
 10.15: Foxtrot—Jesse Crawford and His Orchestra, "The Prep Step."
 Foxtrot—Irving Mills and His Hotsy Totsy Gang, "Manhattan Rag."
 Foxtrot—Jesse Stafford and His Orchestra, "My Sweetest Than Sweet."
 Vocal—Chester Gaylord, "Dance Away the Night" (Thompson-Stamper).
 Foxtrot—Irving Mills and His Hotsy Totsy Gang, "What Kind of a
 Man is You" (Carmichael) (4641).
 Foxtrot—Tom Gerun and His Orchestra, "One Sweet Kiss."
 Foxtrot—Jack Denny and His Mount Royal Hotel Orchestra, "The End
 of the Lonesome Road" (Ruby-Perkins) (4552).
 Waltz—Abe Lyman and His California Orchestra, "If I'm Dreaming."
 Waltz—Abe Lyman and His California Orchestra, "The Shepherd's
 Serenade" (Grey-Stothart) (4633).
 10.42: Vocal—Chester Gaylord, "Just You, Just Me" (Klages-Greer).
 Foxtrot—Tom Gerun and His Orchestra, "Some Day Soon."
 Foxtrot—Jack Denny and His Mount Royal Hotel Orchestra, "Scot-
 chie" (White) (4552).
 Foxtrot—Abe Lyman and His California Orchestra, "Sally."
 Foxtrot—Abe Lyman and His California Orchestra, "If He Cared."
 Foxtrot—Chic Scoggin and His Pla-mor Orchestra, "She Chills Me."
 11.0 : Sporting summary.
 11.10: God Save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, JULY 5.

- 2.30: Relay from Lancaster Park—Rugby Football—Running description of
 the Second Test Match—Great Britain versus New Zealand.
 5.0 : From the Radio Olympia at the Art Gallery, Durham Street.
 Children's Hour, conducted by Aunt Pat, Uncle Charlie and Birdman.
 6.0 : Return to 3YA Studio for Dinner Session Music, (Columbia).
 Instrumental—Ketelbey's Concert Orchestra, "In a Persian Market"
 (Ketelbey) (02689).
 Violin—Efreim Zimbalist, "Liebeslied—Old Vienna Waltz" (Kreisler).
 6.12: Tacet.
 6.15: Morceau—Plaza Theatre Orchestra, "The Busy Bee" (Bendix).
 Dance—Plaza Theatre Orchestra, "My Lady Dainty" (Hesse).
 Octet—J. H. Squire's Celeste Octet, "La Serenata" (Braga) (9116).
 Kinema Organ—G. T. Pattman, "Firefly" (Nicholls) (01348).
 6.27: Tacet.
 6.30: Orchestral—Paul Whiteman and His Orchestra, "Song of India" (Rim-
 sky-Korsakov) (07510).
 Waltz—New Concert Orchestra, "Hydropaten" (Gungl) (02672).
 Violin—Efreim Zimbalist, "Zapateado" (Sarasate) (04221).
 6.42: Tacet.
 6.45: Waltz—New Concert Orchestra, "Jolly Fellows" (Bruder) (02672).
 Octet—J. H. Squire's Celeste Octet, "Serenade" (trdtl.) (9116).
 Orchestral—Paul Whiteman and His Orchestra, "Liebestraum" (Liszt,
 arrgd. Bargy) (07510).
 6.56: Tacet.
 7.0 : Return again to the Radio Olympia at the Art Gallery, Durham Street.
 7.30: Sports results.
 8.0 : Chimes.
 Special Presentation of Charles Lawrence's "Minstrels" in old-time and
 present day Nigger Melodies, Plantation Part Songs, Jokes, Comic-
 alities and Tap-Dancing.
 9.0 : Weather Report and Station Notices.
 9.2 : Return to 3YA Studio.
 Novelty—Syd. Howard and Company, "Our Village Concert."
 9.10: Orchestral—International Concert and Orchestra, (a) "Lazy Pete"
 (Werner); (b) "Parade of the Wooden Soldiers" (Jessel).
 9.16: Soprano—Jeanette MacDonald, "Dream Lover" (Schertzing);
 "March of the Grenadiers" (Schertzing) (EA682).
 9.22: Orchestral—Dajos Bela Orchestra, "Electric Girl" (Helmburgh-
 Holmes) "Eldgaffeln" (Landen) (Parlophone A4009).
 9.30: Returning again to The Radio Olympia at the Art Gallery, Durham
 Street.
 Second portion of Charles Lawrence's "Minstrels" in old-time and pre-
 sent day Nigger Melodies, Plantation Part Songs, Jokes, Comic-
 alities and Tap-Dancing.
 10.30: Dance programme, "H.M.V."
 Humorous Duet—Dora Maughan and Walter Fehl, "A Woman Who
 Knows" (Ruskin) (B3011).
 Foxtrot—George Olsen and His Music, "Little Pal" (de Sylva).

- Foxtrot—Jack Hylton and His Orchestra, "Everybody Loves You"
 (Dubin-Little) (B5651).
 Foxtrot—Rudy Vallee and His Connecticut Yankees, "Lonely Trouba-
 dour" (Klenner) (EA649).
 Foxtrot—Nat Shilkret and His Orchestra, "Am I Blue?" (Clarke-Akst).
 10.45: Vocal—Paul Oliver, "Evangeline" (Rose-Jolson) (Zonophone BB172).
 Foxtrot—Jack Hylton and His Orchestra, "Don't Hold Everything"
 (de Sylva) (B5651).
 Foxtrot—Rudy Vallee and His Connecticut Yankees, "Perhaps"
 (Razaf) (EA629).
 Foxtrot—Rudy Vallee and His Connecticut Yankees, "On the Alamo"
 (Kahn) (EA620).
 Waltz—Jack Hylton and His Orchestra, "Let Me Dream in Your Arms
 Again" (Nicholls) (B5096).
 11.0 : God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, JULY 5.

- 1.30: Running description of football matches.
 4.30: Close down.
 5.0 : Children's hour, conducted by Aunt Anita.
 6.0 : Dinner music—"H.M.V." Hour:
 Orchestral—Piccadilly Orchestra, (a) "My Beloved Gondolier" (Tibor),
 (b) "Souvenir de Capri" (Bece) (B2575).
 Instrumental—New Light Symphony Orchestra, "Just a Memory."
 Violin and cinema organ—Elsie Southgate, "I Hear You Calling Me."
 6.12: Tacet.
 6.15: Waltzes—Marek Weber's Orchestra, "Potpourri of Waltzes" (Robecht).
 Waltz—Hilo Hawaiian Orchestra, "Sweet Hawaiian Dream Girl."
 6.20: Tacet.
 6.30: Instrumental—New Light Symphony Orchestra, "Scene de Ballet
 Marionettes" (Glazounov) (B2754).
 Violin and cinema organ—Elsie Southgate, "Rose in the Bud" (Tate).
 Instrumental—New Light Symphony Orchestra, "Persiflage" (Francis).
 Instrumental—Jack Hylton's Orchestra, "When the White Elder Tree
 Blooms Again" (Doelle) (C1616).
 6.44: Tacet.
 6.45: Instrumental—Salon Orchestra, "My Blue Heaven" (Whiting) (EB18).
 Waltz—Hilo Hawaiian Orchestra, "Sleepy Honolulu Town" (Earl).
 Instrumental—Jack Hylton's Orchestra, "I Kiss Your Hand, Madame."
 6.57: Tacet.
 7.0 : News session.
 8.0 : Chimes. Relay of concert programme from Christchurch Radio
 Olympia.
 10.30: Dance programme till 11 p.m.

Sunday, July 6

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, JULY 6.

- 3.0 : Afternoon session—Selected studio items, including literary selec-
 tion by the Announcer.
 4.30: Close down.
 6.0 : Children's Song Service.
 6.55: Relay of Divine Service from St. Matthew's Church. Preacher: Rev.
 C. H. Grant Cowan. Organist and Choirmaster: Mr. J. Philpott.
 8.30 (approx.): Relay of Concert by Municipal Band, under the conductor-
 ship of Mr. Christopher Smith, from Auckland Town Hall.
 9.30: God Save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, JULY 6.

- 3.0 : Chimes. Afternoon session.
 4.0 : Relay from St. Paul's Pro-Cathedral of the Rally of the Combined
 Anglican Bible Classes. Speakers: Archdeacon Creed-Mersdith,
 Rev. Whitby-James.
 6.0 : Children's Song Service, conducted by Uncle George, and assisted by
 the Children's Choir from the Miramar Presbyterian Church, under
 the Rev. Hitchcock.
 Relay of Evening Service of St. Gerard's Redemptorist Church.
 6.55: Organ—"Eventide," Gaul (Lengnick).
 Rosary with Choral Responses.
 Antiphon—"Salve Regina," Webbe (Cary).
 Sermon—Rev. Fr. F. X. Cahill, C.S.S.R.
 Hymn—"Sweet Sacrament Divine," Traditional (MS.).
 Motets—"O Salutaris," Perosi (MS.).
 "Ave Pater Sanctissimae," Turner (Cary).
 "Tantum Ergo," Anon. (MS.).
 Recital of the Divine Praises.
 "Adoremus in Aeternum," Anon. (MS.).
 Organ—"Grand Choeur," Dubois (Leduc).
 Organist—Mr. Henry Mount. Choirmaster—Mr. Frank J. Oakes.
 8.15: (Approx.)—Relay of the Band Recital of the Port Nicholson Silver
 Band from the Grand Opera House (Conductor, Mr. J. J. Drew).

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, JULY 6.

- 3.0 : Relay of Annual Choir Festival from East Belt Methodist Church.
 Presentation of the beautiful Oratorio, "The Story of Music," by
 Ernest Nichol, Mus. Bac.

Vocal soloists:—

Soprano Mrs. J. A. Stewart
 Contralto Mrs. J. W. Palk
 Tenor Mr. Ernest Rogers
 Bass Mr. James Filler
 Supported and accompanied by full Choir, String Orchestra and Organ.
 Choir Conductor Mr. J. Chaplin
 Organist Mr. A. M. Owen

4.15: Musical recordings from 3YA Studio.

4.30: Close down.

5.30: Children's Song Service by children of Methodist Sunday Schools, conducted by Rev. Rugby Pratt, assisted by the children from the Methodist Sunday Schools.

6.15: Musical recordings from 3YA Studio.

6.30: Relay of Evening Service of Annual Choir Festival from East Belt Methodist Church. Preacher: Rev. W. Greenslade. Choir conductor: Mr. J. Chaplin. Organist: Mr. A. M. Owen.

7.45: Hymns and anthems from 3YA Studio.

8.15: Selection—Menorah Symphony Orchestra, "Bar Kochba" (Goldfaden).

8.23: Mezzo-soprano—Mrs. Grace Empson, "Ombra Mai Fu" (Handel).

8.27: Violin—Miss Irene Morris, "Air" (Goldmark).

8.31: Bass baritone—Barend Harris, (a) "Bells of the Sea" (sung in English); (b) "Song of the Volga Boatmen" (with explanatory remarks) (sung in Russian).

8.41: Instrumental trio—Christchurch Broadcasting Trio, "Allegro Vivace" (from "Trio in D Major") (Beethoven).

8.53: Mezzo-soprano—Mrs. Grace Empson, (a) "Have You Seen but a White Lily Grow?" (Old English, arr. Liza Lehmann); (b) "O Fair and Sweet and Holy" (Rubinstein).

8.59: Weather report and station notices.

9.1: Instrumental trio—Christchurch Broadcasting Trio, (a) "Serenade" (Mozart) (from "A Little Night Music"); (b) "Tempo di Minuetto" (Godard).

9.13: Bass baritone—Barend Harris, (a) "Shir Shomerin" (sung in Hebrew) (The Song of the Watchman) (A Palestinian Folk Song); (b) "My Song of the Nile" (sung in English) (with explanatory remarks).

9.23: Violin—Miss Irene Morris, "Allegretto" (Boccherini-Kreisler).

9.26: Orchestral—Budapest Philharmonic Orchestra, "Rakoczy March." God Save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, JULY 6.

3.0: Chimes. Selected gramophone items.

4.30: Close down.

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

6.15: Close down.

6.30: Relay of evening service from First Church (Preacher, Dr. Hunter; Organist, Dr. V. E. Galway).

7.45: Selection—Classic Symphony Orchestra, "Pagliacci" (Leoncavallo). Chorus—Royal Choral Society, "Hallelujah" and "Amen" from "Messiah"—Handel (H.M.V. D1108, D1135).

Piano—W. Backhaus, "Studies, Op. 56" (Chopin) (H.M.V. DB1180).

8.5: Relay of concert by Tramways Band, under direction of Mr. C. Morgan, from His Majesty's Theatre.

9.30: God Save the King.

8.0: Chimes. Relay of concert programme from Christchurch Radio Olympia.

Australian Programmes

Thursday, June 26.

STATION 2FC.—9.42 p.m.: A debate, "Personality and Wealth." 10.35 p.m.: The 2FC Follies present a half-hour of vaudeville numbers. 11.15 p.m.: "Uncle Tom's Cabin," episode 4.

2BL.—9.30 p.m.: A concert programme arranged by the Musical Association of New South Wales.

3LO.—10 p.m.: Dance night. Clarrie Collins and his Orchestra. Vaudeville numbers will be presented between dance items.

3AR.—9.30 p.m.: Studio reproductions, including the well-known "Emperor" Concerto by Beethoven.

Friday, June 27.

STATION 2FC.—9.40 p.m. and 10.35 p.m.: Jack Lumsdaine, the "Radio Rascal," in popular songs at the piano. 10.55 p.m.: Sundowners' Male Quartet in two negro spirituals. 11.3 p.m.: "Sweethearts," a comedy in two acts.

2BL.—10.17 and 11.40 p.m.: Ethel Lang and Brunton Gibbs will entertain in a novel way. 10.30 p.m. and 10.27 p.m.: Jock Herron and his Brass Quartet.

3LO.—9.30 p.m.: Vocal and orchestral selections from Beethoven compositions. 10.10 p.m.: The Sundowners' Radio Revue Company present "Oddments and Oddities."

3AR.—9.45 p.m.: Community singing relayed from the Central Hall, Geelong.

Saturday, June 28.

STATION 2FC.—9.30 p.m.: A concert programme from the Sydney Town Hall by the Professional Musicians' Union. 12 p.m.: Cricket scores, second test, England v. Australia.

2BL.—9.37 p.m. and 11.14 p.m.: Wendling and Molloy, novelty instrumentalists, in popular numbers. 9.51 p.m. and 11.41 p.m.: Charles Lawrence and Rae Foster will entertain.

3LO.—9.30 p.m.: "The Premier Four" in song and story, assisted by the Studio Orchestra. 11 p.m.: A special programme has been arranged.

3AR.—9.30 p.m.: Relay of 2FC's programme (see above).

Sunday, June 29.

STATION 3LO.—The State Musical Ensemble, with Wurlitzer solos, and assisted by leading vocal artists.

3AR.—10 p.m.: Relay of programme by 2BL, Sydney.

Monday, June 30.

STATION 3LO.—9.30 p.m.: "Sowing the Wind," a four-act play, with incidental music by the Studio Orchestra.

3AR.—9.45 p.m. and 10.58 p.m.: Brass Band and variety. 10.28 p.m.: La Viva Ensemble, vocal and instrumental selections.

Tuesday, July 1.

STATION 3LO.—9.15 p.m.: A topical talk by the Examiner of Patents on "The World's Inventive Brain." 9.30 p.m.: "Memory Lane," old-time numbers. 10.15 p.m.: Louis Hattenbach, cellist, in a recital of his own compositions. 10.30 p.m.: The Melbourne Philharmonic Society in sacred selections. 11.30 p.m.: A vaudeville programme.

3AR.—9.45 p.m.: Dance numbers, interspersed with variety items.

Wednesday, July 2.

STATION 3LO.—10 p.m.: The A.B.C. String Quartet present "Movement from Quartet No. 5 in D" (Haydn). 11 p.m.: "The Colleen Bawn," an Irish play.

3AR.—9.45 p.m.: Brass Band and variety. 10.25 p.m.: "The Artist," a one-act play. 10.40 p.m.: Vocal, instrumental and brass band selections from the classics.

First S.O.S.

Linking Up by Radio

THE first radio operator to send out a call for help was Jack Binns of the Republic, which was rammed and sunk on January 23, 1909, by the Florida. Binns's call (it was a CQD at that time) was heard by several ships, which steamed to the aid of the doomed vessels but were unable to locate them because of an extremely dense fog which blanketed everything. As this was years before the radio compass had been invented and perfected, the skippers had to play a very dangerous game of blind man's buff. The sinking ship was finally located by the Baltic, by the discharge of bombs, Binns and the radio operator of the rescue ship calling to each other the exact times at which the bombs would be fired and the crews of each ship standing by to listen for the sound of the reports. The situation was growing desperate when the last bomb was about to be fired, but the explosion was heard by the keen ears of Binns and over three thousand lives were saved.

Radio for the Infirm

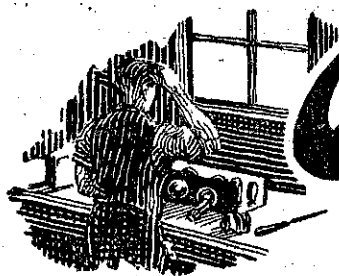
IN Copenhagen a committee has been formed whose purposes is to purchase wireless sets for distribution to distressed, aged, and sick persons who could not otherwise receive the benefit of broadcasting. One of the ways in which the fund will procure the necessary money is by the sale of a special stamp. Through the Press, the fund has asked that listeners will buy this stamp when they visit the post office to take out their license for the next year. The stamp can be placed on the license card, and its price is 25 ore (about 3½d.). The committee hope

THROUGH the establishment of trans-oceanic telephone communication, it is now possible for a telephone subscriber in one of the countries so connected to talk to 20 different nations. These possess a total population of approximately 400,000,000 and contain 85 per cent. of the world's telephones.

The countries linked together include the majority of European nations, Great Britain, Spanish Morocco in Africa, Cuba, Mexico and, in the near future, Argentina, Brazil and Uruguay. Three short-wave radio circuits are employed in telephone-radio communication between the United States and Europe, and an average of about 50 calls a day go across the Atlantic, of which nearly half are social conversations. One-half the trans-Atlantic calls are made to England alone.

The radio transmitters for the short-wave systems are located at Lawrenceville, New York, and reflectors are used to concentrate the energy over the great circle route to the distant European receiving station, so that comparatively weak transmitters may be employed. The receiving station for short-wave circuits is at Netcong, New York, and it also utilises a reflector system to improve signal strength. It seems apparent that within a few years' time every telephone subscriber will be able to communicate directly with any other in the whole world.

that the majority of Danish listeners will buy one or more of these stamps, and as there are now 340,000 listeners in Denmark, a considerable sum should be collected in this way. The committee has also obtained a promise from the Broadcasting Council that, to the greatest possible extent, free licenses will be given to persons granted wireless sets from the fund.



Questions and Answers



"L.S." (Hawera) asks the correct method of neutralising an electric set.

A.: These sets are best left alone by amateurs. They have to be neutralised when the set is switched on, and the very high voltages generated are likely to cause bad shock and even death.

2. How can I tell the filament pins of a 5-pin base?

A.: A diagram of a base indicating the connections was given in our issue of September 20, 1929.

3. Why is it necessary to place a transformer between a gramophone pick-up and the detector valve in this set?

A.: The gramophone output is very much weaker than the radio signals of

an average station stepped up by the R.F. amplifier. An input transformer increases the voltage from the pick-up and gives louder signals.

4. I am told not to remove the valve from the set with the current turned on. Is this harmful?

A.: Yes, the power pack is constructed so that it will supply the exact amount of current at the correct voltage when all the valves are operating. If you take out one of them, a surge is caused and the other valves are overloaded.

"R.A.S." (Wellington) is making an A. and B. eliminator and wishes to use 25 S.W.G. wire. He wants to know the number of turns.

A.: The number of turns is the same as for 26 enamelled wire. D.C.C. will take up a greater space, and the window will probably have to be larger. You should leave this until you have finished the transformer.

"S.G.S." (Foxton) wants to know the most suitable eliminator for a 5-valve set. He has tried one which caused the set to motor-boat.

A.: The set motor-boated because the eliminator was not capable of supplying sufficient current. An eliminator supplying 150 volts and 40 to 50 milliamps. would be required for the job. This would allow for the use of a power valve in the last stage.

"H.C." (Wellington) asks for the particulars of a short-wave adaptor using valve-base coils.

A.: Use the circuit described on page 103 of the 1929 "Radio Listeners' Guide" and the coil specifications given on page 90 of the 1930 "Guide."

"H.W.Y." (Herekino) states that although we have specified that grid and plate wires should not be parallel, we have made them so in the "Round the World" series.

A.: Although we examined these circuits fairly carefully, we could not see a case in point.

2. If it is unavoidable that they run parallel, how far apart should they be?

A.: At least two inches, but they should be kept as short as possible.

3. What does "split primary" mean, and how does this method of neutralisation apply to the Browning Drake?

A.: A diagram on the next page shows the connections. It can be seen that the primary is divided into two equal parts, and the B plus tap taken to the centre.

4. Will 30 gauge SWG be all right for the choke for a short-wave set?

A.: Yes, it will be more bulky than the smaller wire specified. Battery consumption is not affected by the gauge of wire. If it is too fine, the amount of current drawn by the valve will burn out the wire.

5. To neutralise the Browning-Drake I shut off the rheostat controlling the

R.F. valve, and then cannot get a whisper even of 2YA. My neighbours cannot hear the set, when I turn the neutralising condenser.

A.: A regenerative receiver is neutralised not by dimming the filament of the R.F. valve, but by tuning to a station toward the centre of the dial, advancing the reaction until the set bursts into oscillation, and then adjusting the neutralising condenser until the squeal either disappears or becomes low in intensity. If it disappears, the reaction is further advanced and the procedure repeated.

6. The layout of the Browning Drake says "do not crowd the R.F. side." Exactly what does this mean?

A.: It is really a precaution against placing the R.F. transformer too near to the detector transformer. So long as the parts are fairly close together with these two coils six inches or more apart the stage is not crowded.

7. Is it possible to use .00014 condenser and .00025 condenser for Round the World Two?—Yes.

"F.W." (Napier) asks us the sizes for the sound box of a gramophone cabinet.

A.: Sorry, F.W., we can tell you what you want to know about electric gramophones, but not about mechanical ones. Try one of the gramophone shops.

2. Would you give me the dimensions of an exponential horn.

A.: They were fully given about three weeks ago in the "Radio Record."

"P.OP" (Nelson) wants to know if there are any stations between 500 and 550 metres.

A.: Yes. 7ZL, Hobart, on 516.

"K. de R." (Wellington) wants to know the following concerning the Hammarlund Roberts Four in the "Radio Listeners' Guide":

1. The capacity of the aerial and secondary condensers—.00085.

2. Detector and R.F. rheostats—20 or 30 ohms.

"R.S.O." (Wellington) has a six-valve set with three stages of radio frequency, but he cannot cut out 2YA. He has tried several wave traps, and encloses the circuit of one which reduces the interference from 15 degrees to 8 degrees.

A.: With three stages of R.F. you should be able to eliminate Wellington in favour of 4ZL without difficulty. It seems as though the design of your receiver is inherently wrong. If you tried one of the formodensers used in the Radcord wave-trap in series with the aerial as well as the wave-trap depicted, you might further limit the interference band.

"L.H.H." (Auckland) asks, should the aerial be higher at any one end?

A.: It should be horizontal, if possible. It makes very little difference which end is the higher, though it is generally recognised that the lead-in end should be the lower.

"W.E.D." (Blenheim) asks concerning an aluminium base.

1. Which is the best way to clean this metal?

A.: Clean with Bon Ami.

2. Can aluminium be painted, and what is the procedure?

A.: It can be painted with any metal paint.

"L.G." (Geraldine) asks if he can get better reception by having his lead-in directly down to the set or from an angle?

A.: The lead-in should come down directly if possible, or equally as good is a lead-in the set end of which travels back toward to distant end.

"S.W." (Queenstown) has a set of plug-in coils and cannot reach the minimum wave-length of one of them.

A.: Take a few turns off the coil.

"L.W.L." (Dunedin) has made the Rotorua Portable, and had great success with it. He wishes to know if the Tongariro Portable is better.

A.: It is a more powerful receiver, but requires considerable care in the making. It is difficult to say what you would get with it, but with the loop the original model could bring in the three main New Zealand stations at speaker strength.

"NARKED" (Wanganui) asks the following questions concerning "A" eliminators:—

1. I am using a 4-valve receiver the filaments of which do not take a great deal of current, but I find that the Australian stations and even some of the New Zealand are weak.

A.: Why not test the voltage of the smoothed current, for it seems that either the choke will not pass sufficient current or the charger will not deliver enough for the valves. This charger is rated at 6 volts $\frac{1}{2}$ amp., so that unless there is a defect, it should supply enough current. Keep the rheostat as little in the circuit as possible. The A+ on the charger is in reality A—when used as a battery eliminator.

2. Would it make any difference by having the leads of the "B" and "C" eliminator and the "A" eliminator from the same plug?—No.

3. How many valves would I be able to use with such an eliminator?

A.: It depends on how much "A" current they are going to take. You will get just under $\frac{1}{2}$ amp.

Radio Listeners' Guide, 1930 Edition.

Dealers and Booksellers 2/6, posted 2/9. P.O. Box 1032, Wellington.

Available Everywhere.

THE RADIO BOOKSHOP

(Te Aro Book Depot, 62 Courtenay Place, Wellington.)

"Thermionic Vacuum Tube" (Van Der Bijl) 26/-

"Radio Amateur Handbook"

(Handy's) 6th edition.

Reprinted May, 1930. 5/3 posted.

To arrive July:

"Radio Amateur Call Book."

(World stations' calls), 5/3 posted.

Write us:—

TE ARO BOOK DEPOT

WELLINGTON.

HOW'S THIS!

If a rich relation said: "Tom, my boy. I'm going to give you a first-class trip around the world with a nice little salary each week to keep you going," you would jump at it. Radio operators don't have to depend on rich relations. If YOU want to be a radio operator, for full particulars write to

JOHNSON'S WIRELESS SCHOOL

BRANDON STREET, WELLINGTON.

Radio Trouble Solved!

Experience Counts!!

Twenty-four years' experience in the design of Radio Sets. If your set is not functioning properly, 'phone or write to—

D. NEILL KEITH,

15 DUNDAS ST., SEATOUN.

'Phone 16-535.

"MAXFLIP" (Invercargill) asks what stations other than New Zealand and Australian can be expected with a powerful all-electric set?

A.: Japanese, after about 9 p.m., and the Americans in the early evening between 5 and 8.

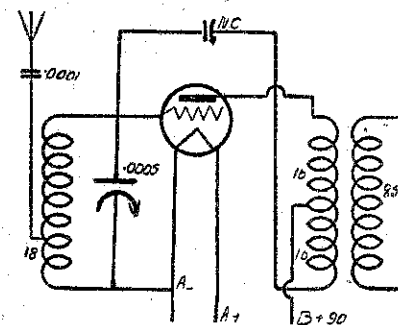
"NEUTRON" (Christchurch) asks the date of the crystal and valve to work from the A.C. mains.—November 16, 1928.

2: Would you give me the address of "Keen" (Hastbourne)?

A.: We could not undertake to do this, but if "Keen" likes to write us and express his willingness we shall forward it to you.

"K.T." (Hawke's Bay) asks if the Loftin White can be made with a "B" eliminator and an "A" accumulator?

A.: No, the Loftin White has been designed for the 245 or 250 valve and



The split-primary method of neutralisation referred to on previous page.

the A.C. screen-grid. If you like to experiment, you might possibly evolve a circuit.

"B.L.M." (Hawera) has a well-known kit set and wishes to add two more valves.

A.: They would have to be radio frequency screen-grid valves, and this would involve a wide knowledge of radio construction. We do not advise any amateur to undertake a task such as this.

"W.E.B." (Auckland) asks the following questions concerning power-pack construction:—

1: Do more turns have to be put on the secondary than on the primary if high voltage is required?

A.: Yes, the voltage is developed by the secondary if directly proportional to the number of turns.

2: I require only 180 volts, but I wish to provide for 500. Will I be using any more current than if I wound for 180 only?

A.: No. The remainder of the secondary, unless connected with a load or short-circuited, would not draw any current.

3: When the power-pack is made I shall have to get new valves. Can you recommend better ones than A415, A409, and B403?

A.: No, these valves will take the maximum 150. You could, of course, use a 245 in the last stage with a 250 volts on the plate, but this would not be warranted with a three-valve set. Unless you propose to use a power amplifier there is no point in providing for 500 volts.

4: Why cannot the current from the winding of the filament transformer be rectified and used on ordinary battery valves?

A.: It can, but extra turns must be wound on to allow for the drop in the

rectifier. For the number of turns see the details of the "A" battery charger described in the 1930 Radio Listeners' Guide. You would, of course, have to provide a large capacity smoothing condenser and a choke.

5: Will an electrolytic rectifier work instead of a valve rectifier?

A.: Yes, it is satisfactory, but messy.

6: Will there be need for a separate rectifier for each voltage taken from the transformer?

A.: If you intend to take filament current there will be need for two rectifiers, one for the high voltage and one for the low, on the high voltage side only. After rectification the voltage can be broken down by means of resistances.

7: Is a commercial filter necessary or can a circuit of chokes and condensers be used?

A.: A circuit of chokes and condensers is a filter.

"J.C." (Hastings) has made up the amplifier described in "All About the All-electric, and is meeting with the following difficulties:—

1. A lack of volume, even when used with a pick-up. Signals distorted as though choked.

A.: It seems as though some mistake has been made or the valves are unbalanced. It is essential in making an amplifier such as this that the emission of the valves be exactly the same. You should have them tested and matched. There may possibly be a defect in the grid circuit: a short circuit or a wire in the wrong place. The resistors may not be able to carry the current.

2. Music and volume is equal to an ordinary amplifier when using only one valve in push-pull.

A.: This indicated that the valves are not balanced, or are wrongly biased.

3. I tried 100,000 ohms resistance in series with the grid leaks and this cleared up the music slightly.

A.: This is really only a compromise for instability and not a cure.

4. Is the 409 output transformer suitable for both speakers mentioned?

A.: Yes, but there must be a further matching transformer in the speakers themselves.

5. Is a 230-volt lamp in series with the field of a D.C. speaker necessary?

A.: Most of this type of speaker is designed to work on 100 to 200 volts D.C., so if you are using D.C. mains of 230 volts a variable resistance of 1000 ohms will be needed.

6. Can the new Loftin White amplifier be used with 230 volts D.C.?

A.: No, but the principle can be applied. Experiment would be necessary.

Loftin White Performance

THOSE who are contemplating the construction of the Loftin White amplifier will be interested to learn that the laboratory model tuned with a condenser and an inductance coil covered the whole range of frequencies broadcast during the test: from 2YA. A Dynamic speaker, that described by "Pentode," was used.

Radio Listeners' Guide, 1930 Edition. Dealers and Booksellers 2/6, posted 2/9. P.O. Box 1032, Wellington. Available Everywhere.

Broadcasting News

THE complete front page of an American newspaper was recently radioed across the Atlantic. The transmission, which was picked up by the steamer Stem near Plymouth, England, was accomplished by means of the American Radio Corporation's new photoradio apparatus. Both pictures and type were almost indistinguishable from the original.

THE growth of radio in America has been phenomenal. In 1920 there were only 60,000 listeners, whereas at present there are more than 50,000,000.

TEN "noiseproof" doors are a feature of the new studios recently completed for station WLW, Cincinnati, America. They weigh more than 800 lb. each, and were installed at a total cost of £9000!

THE youngest radio announcer in the United States, and probably in

the world, is Paul Keough, of station WJSV, Virginia. He is only 19 years old.

A PARIS dentist advertises: "Painless extraction of teeth by an expert. Comfortable waiting-room equipped with an up-to-date radio receiver."

THE date of the formal opening of the new Vatican City shortwave wireless station has been tentatively fixed for June 29. It is stated that in the course of the ceremony the Pope will broadcast a message to the world

Slightly Confusing

IN a last issue a reply to a correspondent stated that the positive of Daniel's cell charger should be connected to the negative of the accumulator. A diagram showed + to + and — to —. The diagram was correct, the words in the text accidentally being misplaced.

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 RECEIVERS	Harringtons (N.Z.), Ltd., 40-42 Willis Street, Wellington.
KING RADIO RECEIVERS ...	F. J. W. Fear & Co., 63 Willis Street, Wellington.
LISSEN RADIO PARTS AND KITS	All Radio Dealers.
MAJESTIC RADIO RECEIVERS	Kirkcaldie & Stains, Wellington Agents, Lambton Quay.
MULLARD VALVES	All Radio Dealers.
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 and Expert Radiola Service.	Farmers' Trading Co., Ltd., Hobson Street, Auckland.
STEINITE RADIO	G. G. Macquarrie, Ltd., 120 Willis St., Wellington.

COUNTRY TOWNS

CROSLEY SETS	Dobbs Bros., 176-8 The Avenue, Wanganui.
MAJESTIC, ATWATER-KENT AND RADIOLA ELECTRIC SETS	Radio House, Hamilton. G. S. Anchor. Manager.
PHILIPS VALVES AND APPARATUS	All Good Radio Dealers.

Reception on Ultra-Short Waves

Many Problems Overcome By "CATHODE"



We have now grown familiar with reception on the once-dreaded wavelengths round about 20 or 30 metres. In fact, the enthusiast who delights in facing and conquering difficulties finds little to interest him in reception on wavelengths which offer fewer troubles than did the broadcast band not very long ago.

To such as these we commend as fresh fields for endeavour the wavelengths between 5 and 15 metres. One can feel tolerably certain of inducing a receiver to work on these wavelengths but to obtain really successful results will provide the enthusiast with many hours of interesting experiment. It is almost unnecessary to stress the benefit to the community generally likely to result from increased knowledge regarding these ultra-short waves; every experimenter helps to increase the sum total of this knowledge.

The one great feature which seems to render certain the ultimate commercial use of wavelengths of 10 metres or less is their consistency. Every short-wave listener has had experience of the variation in signal strength experienced on the 20 and 40-metre bands. A station may be heard one night and not the next; it may be heard during day time and not at night; it may even fade right out of audibility in ten minutes or so. This sort of thing is interesting but annoying. To maintain day and night communication entails changing the transmission wavelength from time to time to suit varying conditions.

The reason for these variations in audibility on short waves is now fairly generally understood. The tremendous range of a small short-wave transmitter under favourable conditions is due to the existence of a stratum in the upper atmosphere in a condition of ionisation. This stratum, known as the Heaviside layer, is more or less impervious to wavelengths of the order of 15-100 metres, and reflects them earthward. Thus the audibility of signals depends on the relation between transmitter, Heaviside layer, and receiver.

Were the height and density of the Heaviside layer constant, no difficulties would be encountered in regard to fading. In practice, however, these things are in a state of constant change, varying from hour to hour, and particularly as between daylight and dark. Thus any degree of reliability in communication on these wavelengths is rather difficult to obtain.

by a condition of ionisation existing in the lower atmosphere, or as a result of certain magnetic effects exerted by the earth itself. It is highly necessary that as much data as possible regarding these wavelengths should be brought to assist the solution of these and other problems, and it is in this direction that the amateur experimenter can prove himself invaluable.

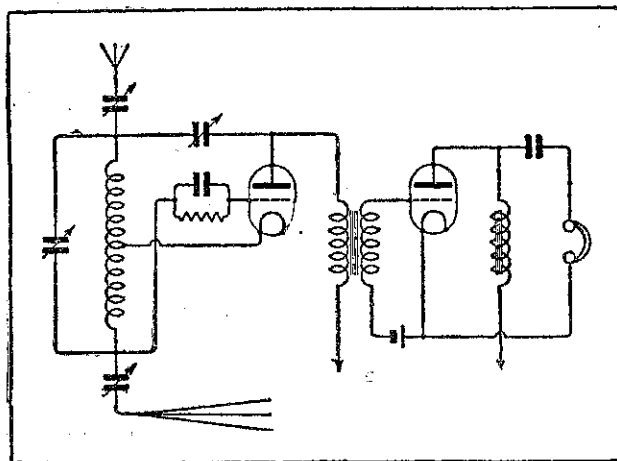


Fig. 1.
Circuit diagram of a two-valve short-wave receiver using a centre-tapped input coil capacity-coupled to aerial and counterpoise.

Wavelengths of the order of 10 metres and less possess very high powers of penetration. That is to say, instead of being reflected earthward by the Heaviside layer, they show a tendency to pierce it and lose themselves in the vastness of space.

At first sight this would seem almost to rule them out as a means of long-distance communication. Yet, in fact, very great distances have been covered with these short-wavelengths, even in their present stage of development. It has been suggested that wavelengths of this order "hug" the earth's surface, either as a result of refraction

No Radical Changes.

NO radical changes from the ordinary designs of short-wave receivers are required for operation on wavelengths between 5 and 10 metres. With careful adjustment, almost any good short-wave receiver of the detector and audio type can be induced to operate successfully, smaller coils being required, of course, to bring the tuning range down. Stray capacity effects are apt to be serious, however, and to obtain reasonable ease of tuning a very small tuning condenser is an advantage.

The more elaborate type of short-wave receiver embodying high-frequency amplification by means of screen-grid valves or neutralised three-electrode valves is not a success for work of this kind, 15 metres being about the lowest wavelength on which any amplification can be obtained from the high-frequency valve. More promising results have been secured with circuits of the Armstrong and other super-regenerative types, while there seems to be no reason why a super-heterodyne receiver should not be extremely successful.

For a commencement, however, there is no doubt that it is wisest to experiment with a simple receiver of the regenerative detector type, to which a stage of audio can be added if louder signals are desired. The greatest care must be taken in regard to layout to avoid the introduction of stray capacities, but provided this precaution is taken it is usually possible to induce the detector valve to slide into oscillation just as smoothly and gently as on the longer waves.

A circuit diagram of a detector and one audio receiver specially adapted to operation at extremely high frequencies is given in Fig. 1. It will be seen that the tuning coil is centre-tapped, as at this point there is practically no alternating potential, and by connecting the centre of the coil through a suitable battery to A, any desired negative or positive bias may be applied to the grid of the detector valve without interfering with the alternating E.M.F. in the tuned circuit. Generally speaking, the detector operates best with a positive bias of 3 volts or thereabouts.

An open aerial can be coupled to one end of the coil through a midget variable condenser having a maximum capacity of perhaps 50 micromicrofarads. If a counterpoise system is employed as earth, this should be similarly coupled to the other end of the coil. If a definite earth connection is used, however, this must be made to the centre of the coil for the same reasons as are outlined above in regard to the centre-tapping.

Th fact that in this circuit both ends of the tuning inductance are at high alternating potential renders it necessary to so adjust the aerial and counterpoise that they have potential variations impressed by the incoming signals at the ends coupled to the inductance. Thus the length of either should not be an odd multiple of a quarter of the wavelength, since this would result in a potential node at the receiver. To secure the best results with this type of receiver, one must be prepared to experiment with several adjustments, of which the most important are the length of the aerial, the aerial coupling, the reaction, and, of course, the tuning. The correct adjustment of the aerial (and counterpoise) coupling is particularly important, and if it is too great, the radiation resistance of the aerial (which at these short wavelengths is of the order of 50 to 80 ohms), will prevent the detector from oscillating, while if it is too small, the signal strength will be substantially reduced.

The type of constructor who will be tempted to experiment on this waveband is not likely to make anything but an excellent job of his layout and wiring. For this reason no practical layout and wiring diagram is given. A few general hints may not be out of place, however.

Hand Capacity.

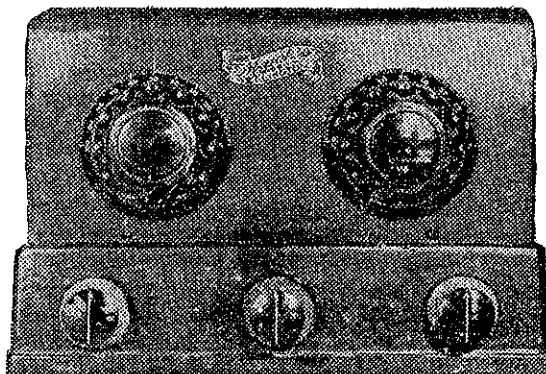
DIFFICULTY may be experienced with hand-capacity effects if ordinary methods of layout are adopted. To forestall any trouble of this kind, it is an excellent plan to mount the tuning and reaction condensers on a false panel set three or four inches back from the panel proper. The condensers are then controlled from the dial on the front panel by means of a rod of ebonite or other insulating material; a dry skewer is first rate. If one or both of the panels can be of metal, this also assists in dispelling the hand capacity bogey.

The tuning condenser should have a maximum capacity of about 50 microfarads. A condenser of the midget type having small plates will be best. (Concluded on page 29.)

Be Prepared

For the coming Short-Wave Programmes which will soon be radiated from the leading countries of the world. No set will be complete unless it can receive Short-Wave Stations. This can be done successfully only with Mack's Short-Wave Addaphone.

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Ultra Short-wave Reception

(Concluded from page 28.)

as at these short wave-lengths the inductance of the plates themselves becomes important; moreover, the field surrounding the condenser will be smaller and less liable to create losses in the solid dielectric supporting the plates. Similar condensers may also be used for the reaction control, and for the aerial and counterpoise coupling condensers.

The grid condenser should be fairly large. A fixed condenser of 001 microfarads capacity will be about right, and its reliability and high quality must be above question. The most suitable resistance for the grid leak depends to a great extent on the valve employed, but it will almost certainly be between 0.5 and 2 megohms. For reception on wave-lengths less than about 5 metres, a detector valve of the "Short-path" variety is desirable, as otherwise the time taken by an electron leaving the filament to reach the plate will be comparable with the period of the wave being received.

WIRING must be carried out with great care. Every connection must be stiff enough to resist the tendency to vibrate. It is thus necessary to use wire of about 16's w.g., or thicker, and this has the additional advantage of avoiding reactance in the leads as the result of the appreciable inductance possessed by thinner wire.

The tuning coils are best constructed of 1-8 inch or 1/4 inch copper tubing. For the 10-metres band a 4-turn coil of 1 1/2 inch diameter and 2 inch winding length will be required. For the 5-metre band a similar coil, but with the diameter reduced to 1 inch, will be most suitable. If the coils are wound with 1/4-inch tubing, they should be very stiff in themselves. If they are found to vibrate, they must be wound on an ebonite former. In any case, they must be mounted with extreme rigidity, preferably on a block of ebonite.

The circuit shown avoids the somewhat difficult problem of finding suitable high-frequency chokes. For the benefit of those who intend using a different circuit, and one necessitating a choke, it may be mentioned that the most effective type of choke at these frequencies seems to be a simple single layer winding of 46 or 48 s.w.g., insulated wire, on an ebonite former of 1/4 inch diameter. About 50 or 60 turns may be used for a 5-metre choke, the number being increased to perhaps 150 or 160 for reception of 10 metres.

There is one thing which may militate against the popularity of the 5-10-metre receiver, and that is the dearth of 'phone stations on this band. The experimenter who can read code will be quite at home, however, and, after all, it is only a matter of a little time before modulated transmission, perhaps even broadcast stations, become quite common on the ultra-short waves.

Our Mail Bag

Candid Comment.

A BACKBLOCKS correspondent from Westland writes to the effect that the Radio Broadcasting Company of New Zealand is a very parasite on the Australian stations, and anyone who contends to the contrary is "either a stranger to the truth or must have shares in the broadcasting company."

Contented!

BEING a satisfied listener for the last three years, and being interested also in radio, I wish to put on paper my

MR. F. G. E. BROAD, who is well and favourably known in Auckland and North Auckland districts as a singer, has been appointed travelling representative of the "Radio Record" for this territory, both in a business and literary capacity. Mr. Broad's address is Port Albert Central, North Auckland.

congratulations for the all-round programme for all people. Truly a very hard job at the best. Listeners should always realise there are others with different taste from their own, and one must live and let live. I would like to hear more sacred music on Sunday afternoons; also in my business I meet a big number of radio friends, especially elder folk, and they also feel the same way. The old plantation melodies give the old much pleasure, and there are a good number of them scattered around New Zealand. I would like to let you know that in this district the listeners are contented in every way.—"Contented" (Oamaru).

Oh! the Inconsistency.

WE have not heard much of late of the controversy that once raged concerning the announcement of the station's call sign in the middle of a record in the dinner music section. We were told that this was necessary to cope with the requirements of the P. and T. Department. The station's call had to be given out every fifteen minutes or something ridiculous like that. What happens to this regulation when the station is relaying? It is probably tied up in red tape. When other stations are relayed we hear their call sign, if we are lucky, not that of the immediate station, but during the

dinner music session when we don't wish to be interrupted with announcements, the regulation comes to light again. The time for foolish regulations is well past. Why should listeners be inflicted with this kind of tosh, for the announcement certainly mars the enjoyment of the music.—"Sealing-wax" (Wellington).

Power Interference.

MY set is situated close to a power line, and up to about the end of March the only New Zealand station that came satisfactorily was 2YA, the other stations being drowned by the frying noise. 3YA was steady enough in the daytime, but began to surge badly and become mushy as soon as night set in. Since about the beginning of April the same thing has taken place with 2YA, which is now not worth listening to. It is best during the dinner music, but the trouble increased towards 8 p.m. The fault does not seem to be in the set, nor, I think, in the station. Do you think the trouble is due to increased power being put on the power line (the main line from Coleridge to the south)? 2FC is at present my best station, and it is not much.—"Power Interference" (Temuka).

[Increased power on the line would create a bigger field, and might give rise to the symptoms.—Tec. Ed.]

"B" Class Stations.

IN this week's "Record" I read with mixed feelings an article dealing with the acknowledgment of reports by certain southern "B" class stations under the heading "Static from the South." My sympathies go out to that "B" station, and I can quite understand how they feel about letters of the type to which they took exception. They provide an excellent service during the off hours of the R.B.C. stations and naturally this takes money and time, and they must earn that money, so cannot spend all their "silent" hours acknowledging hundreds of reports. Aussie "B" stations earning incomes by advertising do not always reply, or may delay. It took 2H.D. three months and five days to acknowledge my card, so apparently the New Zealand stations are not the only offenders. From some southern stations I receive cards almost by return of mail. Best of luck to all "B."—Q.S.I.

[We think the real point is that reports are frequently asked for by the stations concerned, and it has become a matter of practice for cards of acknowledgment to be sent. In the particular case the letter of request was simple and courteous, and the reply received such as to occasion surprise and disappointment. Most people in contact with the general public may be allowed to have their "human" moments and feelings, but it is the part of unwisdom to indulge them.—Ed.]

Carry On, 2YA.

ON picking up my "Radio Record" to-night I was more than pleased to see that you consider that there is nothing to be gained by publishing the letters of those correspondents who have written complaining of 2YA's transmission. I for one feel sure that the technical staff of 2YA can do more with their knowledge toward eliminating any trouble that may arise than a lot of these correspondents can with guesswork.

But, Sir, from what I can see, these correspondents are not satisfied with continually hauling 2YA "over the coals" alone, but now they have got the announcer of that station "on the mat." "Kelburn," to my mind, absolutely puts the finishing touches to a series of the most petty, fault-finding letters I have ever read.

First of all he starts off about the cheery "Good morning," and then suggests a more cheery "Good night." Then he goes on to say how 2YA's "Good night" is painful and jarring. Well, Sir, the Wellington announcer has never failed yet to bring a smile or laugh to anyone who has heard him at my place—in fact, they look forward to it. He goes on to say that the Australians consider it silly. Well, if the Australians and "Kelburn" don't like it, who is making them listen to it?

No, Mr. Announcer, carry on; you are doing good work, and if "Kelburn" can do better, well, I'll take my hat off to him.—"Static" (Wanganui).

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J. M. BINGHAM, A.M.I.R.E.,

Chief Engineer of the R.B.C., who conducted the frequency test from 2YA last week.

—S. P. Andrew, photo.

LISTENERS were given a chance to test the efficiency of their receivers by the frequency test put over the air by Mr. J. M. Bingham, Chief Engineer of the Broadcasting Company, last Saturday. This was the outcome of a request from the Hawke's Bay Radio Society. Nor was it the first of its kind for almost two years ago a similar test was carried out, and a great amount of interest was taken in it. No doubt it resulted in improvements to the designs of very many sets. Since then a great many new listeners have taken out licenses, and the tests were worth repeating. Prior to the tests Mr. Bingham explained the meaning and purpose of frequency tests.

All sounds which you hear, said Mr. Bingham, are composed of vibrations of the air. Some of the vibrations are very slow and some are very fast, and it is the combination of air vibrations of various speeds which give characteristic sounds. The lowest single speed or frequency of vibration which it is possible to hear is somewhere in the vicinity of 16 vibrations per second. This value may vary somewhat with different people, but, anything of a lower frequency than this is usually made manifest by the sense of feeling rather than by hearing.

The upper limit of audibility on the other hand is not so clearly defined. It may vary from 7000 vibrations per second to even 20,000 per second, depending on the person's physical makeup. Generally 12,000 vibrations per second can be taken as a good average for the highest sound frequency it is possible to hear. The range of sound frequencies therefore from 16 per second at one end of the scale to 15,000 per second at the other end is called the range of audibility.

IF we hear a musical note played on an instrument there are three characteristics which distinguish it from any other note. These are the pitch, the loudness, and the quality. The pitch is governed entirely by the number of air vibrations per second which give rise to that particular note. If a certain note is played on an organ and then another note an octave higher is played, the second note will have exactly twice as many vibrations

as the first note. Loudness is self-explanatory, it really corresponds to the amount of energy put into the playing of a note. Quality, however, is a little more difficult to understand. It is that characteristic which enables us to distinguish between a note played on say a violin and the same note played on a cornet for example. The actual note may be the same in both cases.

It will have the same fundamental number of vibrations in both cases, yet, there is something about the two notes which enables our ears unconsciously to distinguish definitely that the first was played on a violin and the second on a cornet.

This characteristic is the quality of the note and is governed largely by the number of overtones present.

There are very few musical instruments which give absolutely pure tones. By this it is meant that they cause vibrations of one definite frequency only.

They emit the fundamental tone or note played on them, but in addition have other vibrations of higher frequencies superimposed. Most overtones are really harmonics of the fundamental frequency. The second harmonic has twice, the third three times, and so on, the number of vibrations that are present in the fundamental tone. Although these harmonics and overtones are frequently very weak, it is their presence, or absence, and relative intensities which enable us to distinguish between various musical instruments.

Wind instruments, for example, are designed with a view to securing overtones that are true harmonics of the fundamental frequency, but other instruments, such as bells and some organ pipes, do not possess any true harmonics although they are rich in overtones.

A flute possesses 1st, 2nd, 3rd and 4th harmonics, a clarinet has only 3rd, 5th and 7th. The mere omission of these even harmonics distinguishes between the tone of the two instruments. Here Mr. Bingham demonstrated by a recording the difference between a flute and a clarinet.

IF we wish to get the truest reproduction from our radio sets it is evident that our sets will have to be capable of faithfully reproducing not only fundamental tones of the musical scale, but all overtones and harmonics as well.

When we consider that the top note of the piano has 4096 vibrations per second, it is evident that to get even the second harmonic of this note, our sets will have to be able to reproduce a frequency of 8192 vibrations per second.

The top note on the piano is very rarely used and notes as high as this do not often occur in musical compositions. Acoustic engineers usually take C above middle C as an average value for the general musical range. This note has a frequency of 512 cycles per second, in Scientific or Physical Pitch. The third harmonics of this has 1536 vibrations which is quite high and necessary for reasonable reproduction of the characteristics of most instruments.

Unfortunately, so far as radio reproduction is concerned, there are several factors which make it difficult to obtain satisfactory reproduction of anything much over 7000 per second.

If musical frequencies up to this value can be satisfactorily received, there should be no reason why the full brilliance of all music reproduction should not be obtained.

Lately there has been a lot of talk about "listening to the bass." This is all very well so far as it goes, but in the majority of cases the reproduction of the bass is at the expense of the higher frequencies, and the higher frequencies are really more important from the point of view of character and brilliance than the bass end of the scale. The bass end gives roundness. The high end gives brilliance.

Both are important, but one should not be obtained at the expense of the other, as unfortunately seems to be frequently the case nowadays. All frequencies from 60 per second to, say, 7000 cycles a second, should be able to be faithfully reproduced if the best is to be obtained from a radio receiver.

LET me now give a word of caution.

Too much significance should not be placed on the following tests, for the simple reason that it is practically impossible for a person to judge relative intensities merely by ear. Neither should you worry if frequencies above 5000 per second commence to get weaker than the lower frequencies. All frequencies will leave 2YA's aerial at equal intensities, but the wavelength used and the selectivity of your receiver will have a marked influence on its response to the higher notes. All tones should, however, be audible to some degree.

The first tone which we transmitted was that of 50 vibrations per second. Some who had dynamic speakers in the receivers probably received this tone very well, as this is very close to the natural period of many dynamics.

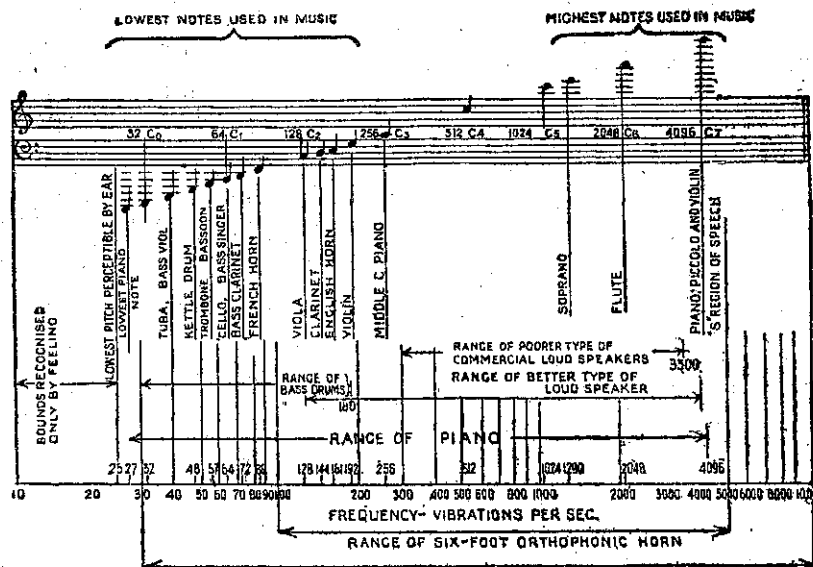
For the purpose of comparison a note 3200 cycles per second or a note five octaves higher was sent out. A perfect receiver should have given these two notes with equal intensity, but their relative intensities could not be judged merely by ear.

Many receivers of the horn or small cone type probably gave weak reproduction of the lower note. Some dynamics should reproduce the lower tone quite well, but be weak on the high tone.

The next note was 100 cycles. This should have been well within the range of most receivers and is one octave higher than the 50 cycle tone.

Mr. Bingham then proceeded through a range of frequencies, calling the various tones as they were transmitted 200, 400, 800, 1600, 3200, 4500, 6400, 7500, 10,000 cycles. The notes between 200 and 3,200 cycles should have been evenly received by everyone. A large falling off in most receivers was anticipated above 6400 cycles.

AS an addition to the test a record entitled "Instruments of the Orchestra" was presented. It was observed that every instrument has its own characteristic tone. These tones are taken from a special gramophone record, and while a record possesses (Concluded on page 31.)



A diagram to show the frequency ranges referred to by Mr. Bingham. The lowest arrows indicate the response of an ideal reproducer. The one above that of a good average instrument.

Stations Identified

IN reply to a Gisborne inquirer, I logged station WTHI, Chicago, 208 metres (1440 k.c.), on April 12. They were broadcasting a midnight frolics programme.—A.E.C. (Taneatua.)

IN reply to E. W. Anglesey (Nelson) re WOC, Davenport, Iowa, 300 metres (1000 k.c.), I usually pick this station up on Tuesday evenings between 6 and 9.30 p.m. Station WHO, Des Moines, operates on the same frequency as WOC. One night about a month ago I heard WOC stating that they were conducting a test transmission in conjunction with WHO. He stated that both stations were connected together by telephone line and were broadcasting the same programme on the same frequency. The records being played in the WOC studios were sent over land-line to WHO. This transmission came through at excellent speaker strength, and was very clear. He asked for reports from countries outside U.S.A., so I sent one along, and on receipt of reply I will pass on any information available.

Re station heard by Mr. Anglesey (Tadmor) on 1070 k.c. (280.2 Metres), I have only one American on this wave-length, and that is WTAM, Cleveland, Ohio.—R. Dixon (Brunner.)

I AM able to throw a little light on the mysterious station on Morse and telephony heard by several readers lately. On May 12 I heard a harmonic of 2ME, Sydney, on about 254 metres (1180 k.c.), when he was calling up the unknown station. The call sounded like CJML. I wrote asking for the identity of the station, and I received

Frequency Test

(Continued from page 30.)

very little response above 6000 cycles there is sufficient to show that there is a marked difference between the tones of the various instruments. These characteristics are caused by the pitch and overtones of the instruments concerned.

The instruments were: Violin, viola, cello, double bass, bassoon, cornet, tenor trombone, harp.

In conclusion Mr. Bingham mentioned for the benefit of those interested that, with the exception of the 50-cycle tone, which was obtained from a standard frequency record, all tones were produced with a special valve operated oscillator giving practically pure tones without any subsidiary harmonics.

THE D.X. CLUB

Views and News.

an answer last week verifying my reception. The only information they gave, however, was that the station is the s.s. Noora, call-sign VJNL.—M.B.S. (Palmerston North).

find any newspaper mention of it, I would be pleased if any other listener would let me have further details.—"V.A.S." (Khandallah.)

Identification Wanted

AT about 10.10 p.m. on the evenings of May 31-June 3 (inclusive) I received a foreign station on a wave-length very close to that of ZL2AW (82.88 metres). The announcements were made alternately by a woman and a man, and some fine orchestral items were heard. On June 3 an opera or a play was broadcast. The station comes

The Technical Editor, for the purposes of compilation, would like to learn from listeners the result of the frequency test on their particular receiver. It is necessary to state only the make of the receiver, the frequency cut off, and the strength with which the frequencies were received.

on the air at the time previously mentioned, at a speaker strength of R4 to R5. The set is a "Round the World Two."—H.E.R. (Wellington.)

ON June 9, at 9 p.m., I tuned-in a station on approximately 222 metres (1350 k.c.), broadcasting dance items and songs. The call sounded like QXM, and was repeated after every second item. Strength R2-5. Static bad. Items heard: 9.2 p.m., dance item, "Walking With —," 9.5 p.m., announcements. 9.15 p.m., tenor, with banjo. The station faded out at 10.15 p.m.—G.P.C. (Martinborough.)

AT 11 a.m., on approximately April 18, I picked up station VAS, Louisbourg, Nova Scotia, on 28 metres. Reception was very clear. Before closing, it was stated that VAS and two other stations would in all probability operate on 16 metres. This part was unfortunately spoilt by fading. Also, an impending test on the Canadian Grand Pacific Railroad was mentioned, and it was added that everything would depend on atmospheric conditions. This test was to take place the next day, but as I have been away and cannot

DX Topics

New Japanese Station.

THE distant stations have not the same strength lately. Many listeners have heard a station in the early morning at 7 o'clock on musical numbers. They will find this station very useful for the breakfast music. It is our old friend 4ZL, and they put over some very good musical numbers.

I have received a letter recently from a DX listener in Japan, and he states that there will be another station on the air soon with the call JOJK on 420 m. (720 k.c.), using 3 kw. power. This station will cause some trouble by heterodyning 2YA. It is located in Kanazawa, and is owned by the B.C.J. I logged KZRC, Philippine Islands, on 320 metres (940 k.c.), on June 12 at 1.30 a.m. with slight fading. I also received another on 260 metres (1150 k.c.), whose call-sign began with K —, but static prevented my logging the full call. It is reported that there are two Chinese stations on the air which can best be heard on Monday nights at 11.15. One is between WLW and 2YA, and the other is on 2KY's frequency. I have not heard either of these.—DX-er (Okato).

HERE are some particulars recently received from JOBK, Japan. Address: 9 Chome Whonmachi Tenno-

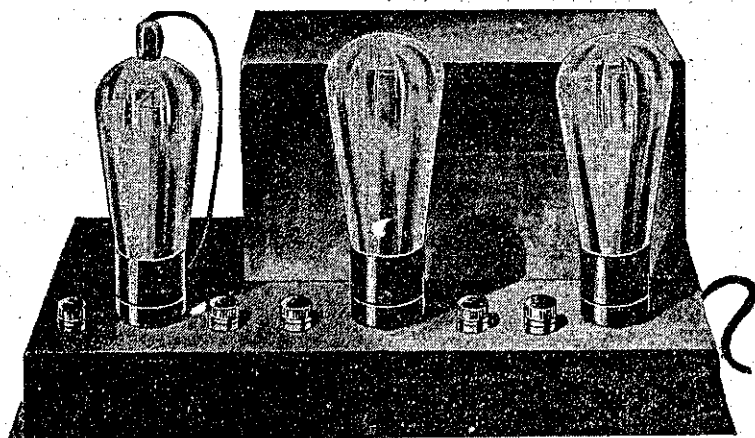
jiku, Osaka, Japan. Power, 10 kw.; frequency, 750 k.c. (399.8 metres). The letter received was short but interesting. They invited any further information I could send with regard to reception. For QSL card they enclosed a programme sheet. Quite unique. They informed me that the items I gave were a few Japanese folk-songs by a woman with a musical stringed instrument called "shamisen." This station, together with JOAK, come in on the speaker with remarkable clarity and consistency this past week from 10.15 p.c.—"Bob" (Wellington).

MANY thanks to the listeners who identified a station for me. The Americans are coming in in fine style now when our old friend (?) static permits. During the past week I have added the following to my log:—KMTR, Hollywood, 572 k.c. (520 metres); KFRC, San Francisco, 610 k.c. (492 metres); WENR, Chicago, 872 k.c. (345 metres); 2ZP, Wairoa, H.B., 833 k.c. (359 metres).

On June 15 station WENR, Chicago, was coming in as strong as 2BL at 5.15 p.m. and on the 17th KFRC was fairly strong with two items, "Where you are" and "How Happy We'll Be," at 6.55 p.m., while on the 18th the new station 2ZP came as a surprise, and I am still wondering why I did not get it before.

We very much appreciate the thoughtfulness of the proprietors of the Dunedin station 4ZL in putting over the early morning session on the 19th. He was on the air at 6.50 a.m. with gramophone items.

I was very disappointed in not finding any DX notes in this week's "Radio Record." A word to DX'ers. Keep your page in the "Record" filled and remember all members are interested in what you can get out of the air. Your news and views are always welcomed by many. A query regarding J.C.'s (New Plymouth) letter in your issue of June 13. He says: "I picked up a station on 1200 k.c. at 9.30 p.m. (?) and held it till 10 a.m. (?)—some listening—when it faded away."—"Vogeltown" (New Plymouth).



Loftin-White Amplifier

Complete with Valves £14/10/- Demonstrations Daily

We are able to supply the complete range of components necessary for the construction of this remarkable Amplifier.

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Short-wave News

Java Shortwave Stations.

THE principal transmitters at Java are PLF on 16.81 metres, PLR, 27.8; PMB, 14.55; and PLE, on 15.93 metres. Each station uses about 20 kilowatts in the aerial. The regular telephone service with Holland is carried on every day, Sunday excepted, from about midnight, New Zealand time.

One hour before starting telephone service, gramophone records are used to regulate the transmission. On most Wednesday mornings from 1.10 to 3.10 o'clock PLE is used for broadcasting. Before closing down, time and date of next concert is always announced.

RA97 on Dual Wavelengths.

A CARD has been received by a correspondent showing that RA97 (late RFM) is transmitting on the dual wavelengths of 35 and 70.2 metres. Most listeners thought that reception on 35 metres was a harmonic.

Signals are always much weaker on the lower wavelength.

WGY Testing on 100 Kilowatts.

STATION WGY has been testing on about 29 metres, with a power of 100 kw. during the past week from about 1 p.m. to 2 p.m., New Zealand time. Reception is reported to be excellent at good volume.

The Week's Conditions.

RECEPTION continues to be very poor during the early morning till about 7 a.m. or after. Afternoon conditions appear to be about normal for the season.

Log for the Week.

Sunday, June 15.

BEING anxious to hear the cricket from England, I was up at 5 a.m.

FOR SALE OR EXCHANGE

The rate for small advertisements under this heading is 1/6 cash for 20 words, and twopence for every other word thereafter.

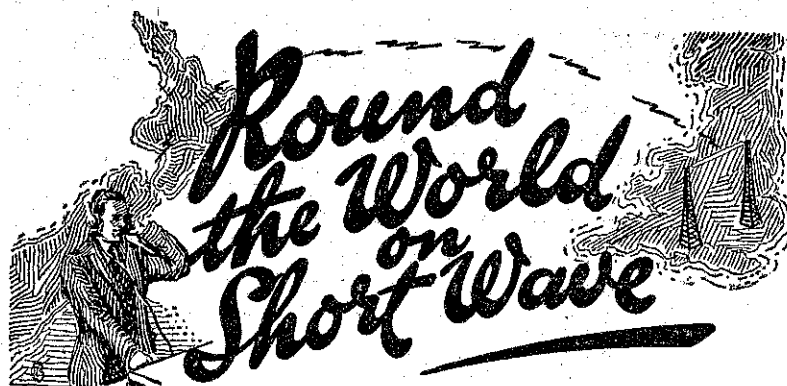
D6 MAGNAVOX SPEAKER, AJS Speaker, Model LSC, S-M Short-wave Adapter, 18-100 metres. What offers? A. L. Rumbal, Otane.

NATIONAL H-D "B" Eliminator with Rectifier, £7; Two-stage Power Amplifier complete, one 227, two 245S, one 280, £19, valves optional; Philips Baby Grand Speaker, new £2/5/-; all guaranteed in perfect condition. A. L. Rumbal, Otane.

EVERY Radio enthusiast should have JOHNS, LTD.'s wonderful Radio Catalogue. Everything for Radio. Post free. Johns, Ltd., Chancery Street, Auckland.

RADIO Catalogue sent on request—Electric and Battery Radios, Speakers, Batteries, Valves, Motors, Pick-ups, etc. Royds-Howard Co., 553 Colombo Street, Christchurch.

MYSTERIOUS Pocket Lighter. What makes it light? 4/6. Two posted with Spark Pencil, 10/-. Agents wanted Royds-Howard Co., Colombo Street, Christchurch.



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.

for 5SW, but only a weak carrier was audible, not even a suggestion of talk being heard. GBP, the English station of the England-Australia telephone service, was tried next with a little better results.

The talk by Mr. Warner was readable in patches, but not enough to fol-

low during the afternoon and evening. Quality and volume was all that could be desired. KIXR, still on about 31.3 metres, were very rough. R2 at 7 p.m. and R5 at 10 p.m.

RA97 opened at 10 p.m. with a band. "Red Banner" news in English followed. Volume R8-9.

Stations Heard During Week Ending June 21

RA97, Siberia, 70 metres: Each evening.
W9XF, Chicago, 49.83 metres: Sunday and Saturday.
W3XAL, New Jersey, 49.18 metres: Sunday and Saturday.
W2XE, New York, 49.02 metres: Sunday.
? ? 36 metres (about): Tuesday.
? ? 33 metres (about): Saturday.
? ? 32.5 metres (about): Saturday.
? Germany, 31.5 metres (about): Wednesday and Friday.
W2XAF, Schenectady, 31.4 metres: Sunday and Tuesday.
ZL2XX, Wellington, 31.4 metres (about): Sunday.
3UZ, Melbourne, 32 metres: Monday.
ZEESSEN, Germany, 31.38 metres: Wed., Thurs., Fri. and Saturday.
PCJ, Holland, 31.28 metres: Friday and Saturday.
KIXR, Manila, 31.3 metres: Each evening except Monday.
NRH, Costa Rica, 30.5 metres: Saturday.
? ? 30.5 metres (about): Monday.
? ? 29 metres (about): Monday and Saturday.
VK2ME, Sydney, 28.5 metres: Daily.
GBP, England, 27.7 metres: Daily.
G5SW, England, 25.53 metres: Each day except Monday.
? ? 24.5 metres (about): Sunday.
? ? 24 metres (about): Sunday.
W8XK, Pittsburgh, 25.25 metres: Sunday.
W2XAD, Schenectady, 19.5 metres: Sunday.

low the particulars of the game or to hear the score. This talk was picked up better in Australia and rebroadcast by 2BL, which was heard in Wellington quite well. Reception from GBP was much better after 5.30 p.m. (when the cricket talk was over).

2ME at the same time was gushy at R5. They told London that they were not being received too well.

W2XAF was first audible about noon, increasing to R9 by 3.30 p.m. A special transmission was heard, when the President-elect of Brazil was being entertained by Hoover. This was heard through W2XAF, W2XAD, and W8XK on 25.25 metres.

2XAD was R5 at 1 p.m., increasing to R8 by 2 p.m. KDKA during the special transmission were R7. Duplex telephony between stations on about 24.5 and 24 metres were heard at 2 p.m. W3XAL were on till 4.30 p.m., being R7 at that time. W2XE was only just readable.

W9XF were later in reaching readable strength, but were on the air till 6.30 p.m. ZL2XX were testing

R9. At 10.15 p.m. on about 30.5 metres, music at R4 was heard. Speech was too distorted to be readable.

Tuesday, June 17.

AT 6.20 a.m., GBP and 2ME were R4 and R8 respectively. On about 36 metres a voice was heard at R4, but Morse on top spoilt possibility of hearing a call. 5SW was only just audible at 6.30 a.m., and still very weak one hour later.

Zeessen was not audible till 7.30 a.m. W2XAF was R8 at 10.45 p.m., talking to 2ME, who were R5.

KIXR at 10.50 p.m. were gushy at R5. 5SW was not audible at 11 p.m.

Wednesday, June 18.

STATION 5SW were tuned in at 7.30 a.m. in time to hear the time signal. An interval was announced. R4. GBP at 7.30 a.m. were R8-9, while 2ME were too weak to be readable just then, but increased to R8 by 7.50 a.m.

Zeessen was R8 with a band at 7.45 a.m. The 31.5 metre German was gushy at R2-3. KIXR at 7 p.m. was R4, and R6 after 9.30 p.m. RA97 was R8-9 from 10 p.m. Static was less than usual.

Thursday, June 19.

ZEESSEN was R8, but very gushy at 7 a.m. 2ME and GBP were both good and loud, the English station being the better of the two. 5SW, although weak, was more steady than usual, being 100 per cent. readable.

KIXR was about R4 at 7.30 p.m., and at 9.30 p.m. RA97 was spoilt by static at 10 p.m., when signals were R8-9.

Friday, June 20.

STATION PCJ was very poor, being only R1 at 6.15 a.m., reaching R4-5 by 7.30 p.m., when they were 100 per cent. readable. GBJ was R7 at 7.30 a.m., but 2ME was not audible. 5SW and Zeessen were not audible till nearly 7.30 a.m.

The 31.5 metre German was R2-3 at 7.30 a.m. 2ME at 7 p.m. was R9, while GBP was not audible. KIXR was gushy at R8 at 8 p.m.

RA97 at 9.30 p.m. was R9 on 70 metres and R5 on 35 metres.

Saturday, June 21.

THIS morning PCJ was better than for some time, being R8-9 from 6.30 a.m. till 7.30 a.m. Their wavelength was given as 31.28 metres. Until now it has been announced as 31.4 metres, although their wave has been slightly lower for some weeks, the fact being mentioned in English radio papers and shown as such in the last issue of the New Zealand Radio Guide.

Zeessen also was better, being R9 at 7.30 a.m. 5SW was gushy at R4 at

PACENT PHONOVOX DE LUXE ELECTRIC PICK-UPS

With Counterbalanced Tone Arm and Volume Control.

Special Price, only 32/6

G. G. MACQUARRIE LTD.

LICENSED RADIO DEALERS,

120 Willis Street,

WELLINGTON.

NOTES and NEWS from the NORTH

A Talk on Pharmacy

MR. C. H. FARQUHARSON, M.P.S., editor of the "Pharmaceutical Journal of New Zealand," broadcast from 2YA last Thursday night, choosing for his subject, "Pharmacy in the Community." Mr. Farquharson defined the term "pharmacy" and explained the meaning of the word "drug." He dealt with the three classes of drugs, which are medicinal or remedial substances; substances such as roots and barks, or what are generally termed "crude drugs"; and a small but important group of narcotic drugs. He explained that the true meaning of this word without qualification is rather unfortunate, as the intended import tends to become somewhat distorted.

The work of the British Pharmaceutical Society was dealt with, and Mr. Farquharson explained its methods of standardising drug qualities throughout the British Empire. The experimental and research work done in connection with drugs by the society, and the standard it sets to restrict unqualified chemists dispensing, reacts beneficially to the community.

Strategy.

Jiggs: Hullo! Bought a saxophone? Jaggs: No fear: I borrowed it from the man next door.

Jiggs: But—you can't play it. Jaggs (with a wink): Neither can he while I've got it.

Does your friend read the "Radio Record and Electric Home Journal?"

Every new radio enthusiast should secure the "Radio Record," available from radio dealers or booksellers.

Programmes weekly in advance enable effective selection to be made.

Technical queries answered. Troubles elucidated. Short-wave notes. Items for D.X. men—in a word, invaluable to all listeners.

In the Home—

The Electric Home Section meets feminine needs entertainingly. Prize competitions weekly—original poems, original recipes, original paragraphs.

Special articles on all phases of electricity in the home.

3d per copy.

Yearly in advance, 12/6,

Post Free, all Booksellers.

or
"RADIO RECORD,"
P.O. Box 1032,
Wellington.

Noted Orchestral Leader

ROY BRINDSEN, whose new band of eleven players, known as the Royal Squadron Syncopators, is to make its initial appearance from 1YA, Auckland, on July 10, is already well-known to Auckland listeners. He is one of the most versatile members of the 1YA Station Orchestra, and plays the trumpet, saxophone, banjo, and usual drummer's instruments, his star turn being his xylophone solos. Roy Brins-



MR. ROY BRINDSEN, the leader of the Royal Squadron Syncopators, to appear from 1YA on July 10.

den used to run a picture theatre orchestra in Wellington, which broadcast after the evening performances. This was as far back as 1922, and the broadcasts were carried out from the tiny studio at the station operated by the De Forest Company. Brinsden subsequently toured with Pat Hanna's Diggers, and broadcasted from two stations in Brisbane. He has also been heard by Wellington listeners when broadcasting in conjunction with the Watersiders' Silver Band.

selves in trouble over debates on subjects which appeared most harmless, and even an impromptu speaker over the air has been known to cause trouble through some ill-judged remark.

THE relay of the Municipal Band from the Town Hall, Auckland, which was scheduled for Saturday, June 28, will not be carried out by 1YA. A studio programme has been substituted, the artists including Frank Campbell, light baritone; Owen Pritchard, and a Scottish novelty duo, Mr. A. L. Macpherson and Miss Gladys Hoskin.

TWO new dance bands are to be heard from 1YA shortly. These are Roy Brinsden's Royal Squadron Syncopators, who will appear on July 10, and the Monte Carlo Dance Band. The latter combination, which will be heard on July 16, is made up entirely of ex-professional players from the theatre orchestras who have been disengaged owing to the advent of the talking pictures. On July 10 light music will also be provided by Frank Wade and his Melody Boys, a new trio. This combination was formerly the Sunshine Duo.

IT is interesting to recall in connection with the "New Zealand Night" being put on at 3YA on June 26 that a similar evening programme was given from 1YA on September 6 last year. The 1YA programme was most successful, and there is a possibility that another on the same lines will be given from the station again this year. There is almost enough local talent to justify an "Auckland Night."

THE debate which was to have been given from 1YA on July 1 has been definitely cancelled. Naturally, great care has to be exercised in regard to all material put over the air from a broadcasting station, a perfectly unbiased and unprejudiced attitude having to be maintained to avoid offending listeners.

IN order to observe this unbiased attitude a certain censorship must be imposed, and the text of any controversial matter must be examined. A good debate must be really controversial, and must have a certain amount of spontaneity and topicality if it is to interest outside listeners. This is impossible if it all has to be written beforehand and then spoken as written. It will be seen therefore that debates are tricky material for broadcasting purposes, and are not really suitable matter, for a national broadcasting concern, at any rate, to put over the air. The B.B.C. in England have more than once found them-

7.30 a.m., and much better at R6 at 7.40 a.m.

2ME and GBP were both R9 at 7.45 a.m. PCJ from 1.30 p.m. were R7, varying from that to R8 till 5.30 p.m. Reception for the greater part was gushy, only being steady for short periods.

NRH was just audible at times from 2 p.m. Duplex between stations on 32.5 and 33 metres was heard at 3 p.m.

On about 29 metres from 3 p.m. a very strong carrier was heard till late in the afternoon. Several talks were heard in a foreign language. The only English heard was counting. After 4.30 p.m. a frequency test was carried out.

Reception all through was excellent, both as regards volume and modulation. No call was heard, but may have been given while I was listening on other waves.

2ME and GBP were R9 and R8 from about 3.50 p.m. W3XAL at 4.30 p.m. was R5. W9XF was R4 at 4.30 p.m., increasing in strength rapidly. RA97 at 10 p.m. were R8, and R9 at 11 p.m. Some fine orchestral selections were heard.

KIXR again was weak, being only R4 after 10 p.m.

Siberia Calling

ON June 13, at approximately 10 p.m., the Russian station RD 15 (whose call till recently was RA 97) broadcast a speech in English. This was clearly readable. A woman gave a very impassioned address, and, according to her, the present situation in India is likely to become grave through agitation by Communists.

The sentences: "India is listening to the Soviet proposals," and "the Mohammedans will cast off the British yoke," etc., were repeated several times.

Russia is apparently trying very hard to get a hold in India, and according to the lady giving the address has got a large finger in the pie already. When the address was concluded, the lady announced that she would be on the air again (speaking English) at the same time to-morrow, and gave the station call, RD 15, Siberia, Russia, wavelength 70 metres. —E. W. Anglesey (Nelson).

Have You Heard Italy's Short-waver?

Have You Heard Italy's Short-waver? TESTS are now being conducted with the short-wave transmitter erected near Rome for the purpose of relaying the programmes of "Radio Round" to the Italian colonies and countries overseas.

Wavelengths of 25.4 and 80 metres are being used. Favourable reports have been received by the station from India, Australia, South Africa and the United States.

Burgess Batteries
are used in all
big events.

Why?

**BURGESS
RADIO
BATTERIES**

More Burgess
Batteries are sold
in New Zealand
than any other.

Why?



Beauty and Utility

Wellington's Newest Club

CONGRATULATIONS to the architect and executive of Wellington's newest club, the "Civic." They are to be congratulated on the opportunity they have taken of employing electricity throughout their palatial new premises at Levy Buildings, Courtenay Place.

The furnishing scheme, as a whole, is luxurious, dignified and restrained. Replete with every comfort, the lighting is an example of what modern lighting should be. It is doubtful if, in any single instance, the glaring mistake of an uncovered light is to be detected.

There are several card-rooms, including one with a specially fitted poker table, and all are softly and efficiently illuminated. Corridors are lighted by indirect fittings, while the reading-room boasts not only a central fitting and a reading lamp for the enjoyment of all the latest periodicals and magazines, but reflected lights over all the well-known dailies of the Dominion. An absolutely sound-proof telephone cabinet has also been installed.

The eight tables in the billiard room with their lighting fittings have been imported direct from Thurston's, of Leicester Square, London, the well-known billiards specialists. They leave nothing to be desired. There are two private billiard rooms open to ladies, accompanied by members of the club, and one table is of championship design, conforming to the requirements of the British Championship Billiard Association championship matches.

The beauty of the comfortable little lounge is further enhanced by two original paintings of the late Lord Leighton, one-time president of the Royal Academy.

It is, however, in the dining-room, with its sunny, soft-finished, electrically-sprayed walls, that the last word in lighting is displayed. Two horizontal panels of layers of opalescent glass conceal lighting bulbs, which shed a diffusion of light for general purposes; and are supplemented by central and wall fittings of glass panels of futuristic design in oxydised metal mountings. The lighting scheme is perfect, and the table appointments are the refinement of good taste.

The kitchens, too, are adequately provided with electricity, being equipped with nothing less than electric hot-plates and grill, a five-gallon electric urn (with three separate porcelain-lined compartments for hot water, milk

£20 Better Lighting Competition

Heavy Entries---Decision Next Week

ENTRIES for this competition closed at 9 p.m. on Saturday night last, June 21. The entries run into hundreds, and at the time of writing there has been time for only a very cursory glance through the volume and a rough assessment of the standard of performance. This seems to be good, and the judge anticipates a fairly difficult task in selecting the winners.

AN explanation is due to some competitors who have pointed out that in the later issues of the paper covering the competition, one of the illustrations of lamps was not duplicated in the supporting advertising. This is unfortunately true, as one advertiser, in changing his advertisement, varied the illustration of the type of lamp. This factor, however, will not be allowed to influence the judging. The requirement to identify the lamp was designed to facilitate study of advertisers' announcements in order that the points about better lighting might be fully understood. In view of the regrettable confusion created by the change mentioned, the selection of winners will be made solely on the merit of the sentences composed from the name chosen.

Announcement of the winners will be made, it is hoped, in next week's issue of the "Radio Record."

Effecting Economy

Points for Consumers

A DISCUSSION at the last meeting of the Hutt Valley Electric Power Board contains several points of interest for consumers of electricity.

It was reported that complaints had been received from consumers that their electric lighting accounts were more this year than for the same period

and coffee respectively), electric toasters, percolators and waffle irons. As one would expect, other fittings are all on the same up-to-date scale. The pastry slabs, and, indeed, all cooking tables are of slate.

The cloak-room is fully equipped with spacious lockers with a Yale lock for each member; a rack for members' private billiard cues; baths and showers of the latest designs.

A novel feature, about to be developed, is that of a roof-garden for afternoon tea, to which members will be able to take their ladies.

What a sanctuary for mere man!

last year. In dealing with this matter the general manager explained that investigation of such cases almost uniformly proved that the consumer did not take into account the use that was being made of increased power lights, bulbs that were old and past their usefulness, and of electric wireless sets. The use of radio sets from the electric mains had brought to the board considerable revenue. This was a small point that consumers were apt to forget.

Another point of importance to the consumer was that they neglected to check up on the life of their bulbs. It had to be remembered that electric light bulbs had a limited life only, and were good for only a certain number of hours at fullest efficiency. If they were burned beyond that time they would consume about twice as much current as they ought to and give inefficient light. A rough and ready method of testing the efficiency of a bulb from this point of view was that, if it was too hot to handle after being burned for some time, it had outlived its life and should be promptly abandoned and replaced.

"Like a Bally Surgery"

The Modern Kitchen

"It takes a heap o' livin' in a house t' make it home," an American poet says. Just what do people mean and want when they speak of Home?

An old-time plumber was recently taken into a new electric kitchen and asked what he thought of it, with its array of shining appliances, its polish, and its buttons. "Wot do I think of it? Why, it don't look right ter me," said the plumber. "Give me a kitchen wot looks like a kitchen. This looks like a bally surgery."

What a tribute to the appearance and cleanliness of the electrically-run home! Add to those advantages the cheapness, the healthfulness, the saving in time and labour, and what can compare with it?

Too many people fail to reap the full benefit by going about the job in a piecemeal fashion. First, they are content with lighting by electricity, then perhaps they add an iron or a toaster. If they wish really to realise the benefits that electricity can confer, they should apply it in its entirety—let it do the work of the whole house. The

Fatigue of the eye is measured by the number of involuntary blinks over a specified period. More than three blinks a minute indicate that the subject is working under unsuitable light. Working by candle-light, a man was observed to blink seven times within a minute. When this was changed to electric light he blinked only twice within the minute.

supply of power for domestic and power purposes is very cheap, which is more than can be said for any other form of labour, and the more that is used the cheaper in proportion it becomes.

Why not then electric power for cooking, cleaning, the sewing machine, the washing, and the radio? The saving will offset the total electric bill and pay interest and depreciation on the

Radio Listeners' Guide, 1930 Edition, Dealers and Booksellers 2/6, posted 2/9. P.O. Box 1032, Wellington.

Available Everywhere

Another Social Tangle

IN this case, certainly, nothing would appear to be gained by beating about the bush, and Mrs. A. has the right to withdraw the permission given to Mrs. B. to use the post-office box. The most straightforward course would seem to be for Mrs. A. to tell Mrs. B. of her suspicions, but I do not think she is called upon to give any reason. In fact, I think it would be wise not to do so. Should Mrs. B. decide to deny the use she is suspected of making of the box Mrs. A. would be somewhat nonplussed.

In my opinion she can quite well say that since giving her consent complications have arisen, and she would prefer not to be responsible for Mrs. B.'s correspondence. Should Mrs. B. press for a reason, Mrs. A. should give the real one. Even if the suspicions are not correct, and perhaps, even more, if they are correct, she will see that Mrs. A. is being placed in an uncomfortable position, to say the least of it.

Mrs. Oldman truly says "There is no disgrace in making a second marriage," but it is embarrassing for any woman to be supposed to be the object of attentions that she is not receiving.

Problem No. 6, Solutions of Which Appear This Week.

Mrs. A. and Mrs. B. are widows. Without giving any reason for wishing to do so, Mrs. B. asks permission of Mrs. A., who has a business in the city, to receive correspondence through Mrs. A.'s post office box. Mrs. A., being of a generous disposition, readily gives consent. Later Mrs. A. learns that Mrs. B. is anxious to make a second marriage, and suspects Mrs. B. of wishing to carry on a matrimonial correspondence and of using the box to conceal her identity until it is necessary to reveal same.

Mrs. A. fears that it may become known and that people will think that it is she (Mrs. A.) who is carrying on the correspondence. She is therefore very anxious to withdraw her permission to use the box. How should she act?

Fanny equally truly says: "It might make a difference to Mrs. A.'s business; also she might have very personal objections to such a rumour getting about." Mrs. A. may be the mother of a grown-up family, to whom such rumours would be painful, or she may even be receiving attention herself from some member of the opposite sex "with a view to matrimony." In the latter case we can imagine that

EACH week a problem in social relationships is set, and readers are invited to send in their solutions, for which marks are awarded. Prizes are offered to those obtaining the most marks over a series of ten. First prize, £2/2/-; second prize, £1/1/-; third, 10/6, for each series.

Competitors may send in their own problems for publication and solution, and a prize of 7/6 will be given for the best one sent in during each series, and 2/6 for each contributed problem used.

A non-de-plume may be used, but names and addresses must be sent addressed to "Savoir-Faire," "Radio Record and Electric Home Journal," P.O. Box 1032, Wellington. Savoir-Faire's decision must, in every case, be accepted as final.

Problem No. 8.—"Mr. and Mrs. A., who have been married three years, have only just managed to secure a home of their own. Mrs. A.'s two unmarried sisters are not able to get rooms for the money they can afford, and, although their present lodgings are not expensive, after paying for same, there is very little left for other necessities.

"Mrs. A. hears that her sisters intend suggesting coming to live with her husband and herself. They were delighted to get a home of their own and to know that they would have it to themselves, as they were tired of living in lodgings, having waited three years before their visions were realised.

"She knows they will not feel happy with others in their home, and yet does not want to hurt her sisters' feelings by refusing them. Her husband would much prefer they did not come. What should she do?"

Suggested by "La Femme."

Answers must be postmarked not later than July 3, 1930.

complications might become very real. It is fairly safe to suppose that anyone either seeing advertisements of that nature addressed to Mrs. A.'s box number or receiving replies from it would assume that the correspondence was invited by Mrs. A. I consider, therefore, that she has a right to protect herself by withdrawing her consent to the use of the box, without giving any reason unless called upon to do so.

"Mrs. A. being in business will be receiving a fairly large number of letters daily. It is hardly likely that Mrs. A. will attend to the routine job of opening the mail herself, this duty being deputed to an assistant. If Mrs. B. should receive one of her letters which had been opened by mistake by Mrs. A.'s clerk, she might see that it was inadvisable to use a business letter-box for private correspondence.

"Alternately, Mrs. A. could inform Mrs. B. that an assistant now opened all the mail, and suggest the inadvisability of continuing to use the box for private correspondence, as Mrs. B.'s letters may be opened in error."—"Plume."

"It appears that Mrs. A. is being made a convenience of by Mrs. B.

"Most certainly anyone inquiring through the P.O. box number will imagine that it is Mrs. A. who is conducting the correspondence."—"Pat."

"As Mrs. A. only 'suspects' Mrs. B. of using the box for matrimonial correspondence I would suggest that Mrs. A. get a confidential friend to answer advertisements or insert an advertisement and to clear the box herself very often and watch the handwriting so as to verify her suspicions."—"Barbara."

"Mrs. A. is placed in rather an unpleasant position, since she has (presumably) heard of Mrs. B.'s desires of re-marriage through hearsay, and she is also by no means sure that Mrs. B.

perfect right to retract her consent. As Mrs. A. is very anxious to do this, she should put all scruples aside and do so. There is only one course open: she must tell Mrs. B. that for the future she must address her letters elsewhere. No excuses could be offered by Mrs. A. that would be likely to be accepted by Mrs. B."—"Viator."

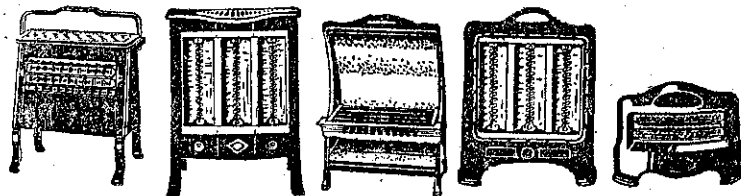
"Until Mrs. A. is certain that Mrs. B. is using the P.O. Box to carry on a matrimonial correspondence, she should do nothing."—"Apple Pie Mary."

"If Mrs. A. spoke of Mrs. B.'s matrimonial correspondence, Mrs. B. would perhaps immediately contradict, thereby leaving Mrs. A. with no further argument."—"Michael."

"As Mrs. A. only 'suspects' Mrs. B.'s correspondence is of a matrimonial nature, and even if her suspicion is correct, there appears no likelihood of the world in general becoming aware that Mrs. B. uses her box. I think she is troubling herself unnecessarily."—"Ben."

Marks Awarded.

Anon, 5; Amaryllis, 4; Anice, 5; Artful, 5; Apple Pie Mary, 0; Babel- (Concluded on page 40.)



Have You Seen the
NEW 1930 Models in

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SCENE: Sitting-room of small flat. Closed door on right. Girl sitting by open window reading.

Time: A Saturday afternoon in summer.

A knock at the outside door. Girl gets up and admits young man.

He: Hello, young woman! How's life?

She: Not so bad, thanks, Bill. Just got back from Auckland?

He: Yes, this morning. Thought I'd breeze along and see if you would care for a spin up the Akatarawa?

She: Sorry, Bill, but I'm going out for a walk with Mike.

He: Mike? And who the dickens is Mike? A new friend?

She (demurely): Yes, and a very dear friend, too.

He: And a very speedy worker, too! Here have I been away less than a week, and I come back to find you entirely under the spell of a bird called Mike. The inconstancy of women! What's he like, anyhow?

She (rapturously): Oh, he's wonderful, Bill! And so clever, too. When he looks at me with those eyes of his I simply can't help adoring him.

He (viciously): Irish, I suppose?

She: Of course, idiot—Mike.

He: Rhymes with tyke.

She: Don't be poetical, Bill. It doesn't suit you.

He (intensely): Do I know this fascinating male?

She: Not yet, but I'm just going to introduce you.

He (startled): What! Where is he?

She (pointing to door on right): In there!

He (horrified): In your bedroom?

She (calmly): Yes. I don't hear a sound, though. He must have fallen asleep.

He (spluttering with wrath): Asleep? In your bed?

She: I'm afraid so. The floor's a bit hard, you know.

He (looking round for his hat): Well, of all the — I mean to say — oh, hang it all —

The girl goes to the bedroom door, opens it, and calls softly: Mike, darling, come and be introduced.

Bill, who has now reached the sitting-room door, stands petrified as a small fat Irish terrier puppy comes rollicking into the room, yelping excitedly.—L.S.

I, FOR one, am glad to see the protest from Mrs. Snowden, the able wife of Britain's Chancellor of the Exchequer. She complains of the pessimistic view Britishers always adopt in speaking of their country. But 'twas ever thus. It is characteristic, but they forget that abroad they are oft taken at their word. Is it not the experience of all of us that the country has always been "going to the dogs?" Is it not equally our experience that, when emergency arises, the Old Country arises to the emergency, and just how well? We quote Mrs. Snowden's words:

"Those people who enjoy being miserable are particularly happy just now! They say our industry is going to pieces, our trade is declining, the unemployed increase daily; we are decadent, we are idle, we are losing our nerve; our old people are senile, our young people are impossible; the country is done for and we might as well all be dead. I feel rather ashamed to hear this feeble whining in the ears of the whole world. We have our sorrows and our difficulties, of course, but we can face them and con-



quer them. We have brains and energy and will, if we care to use them. Why give the impression that we have none of these things? They lie who say we are decadent and done for. There is no freer nation on the face of the earth. There is no nation, where than can be found man for man, a larger measure of goodwill to all. There is no nation which possesses a greater gift of friendship or a more generous attitude to a fallen foe. There is no braver nation, nor one with more sturdiness of character, nor one with a more highly developed social conscience. Then away with depression and foolish fears. We are "up against it" now, but we have been up against it before. We have triumphed over our difficulties in the past. We shall do so again. But do let us go into the struggle with smiles on our faces and shouts on our lips, leading the van, not slinking to the rear; for that which we believe, we can do. And we may believe that Britain can and will be saved."

Great words, these, for any country to take to heart, so away with false modesty, and the "pride that apes humility."—"Ethel."

her rest from hunting curled up in the kitchen fender, getting so warm that her black fur would feel like the cover of a hot water bag. On the day the electricity was installed Rebecca stalked in, waving her tail, and made for her usual bed. She looked at the stove suspiciously for a time, then rubbed her back against its legs and curled up underneath it. Alas! she found this cold comfort, and soon she was roaming round the kitchen mewing loudly.

A special warm cushion was made for her, but nothing would induce her to try another "place in the sun." She grew thinner and more miserable every day, and would sit for hours by the new stove muttering piteous, almost soundless mews. There seemed only one thing to do, and that was to find her an old-fashioned home, but before that could be done Fate settled the question. One morning when the kitchen door was opened, there, under the stove, lay poor Rebecca, dead—a victim to modern convenience.—"Vane."

SAVOIR FAIRE'S problems concerning A, B, and C remind me of a

Leisure

"His Christian name, I think, 'was John. His surname, Leisure."

—Austin Dobson.

*What is this life—this quaint vignette
The poet paints of you? and yet*

No time we say like ours—but stay!

How quiet and peaceful was YOUR day.

No time have we to stand and trace

The slow hours on the sundial's face.

No time to hear the thrushes call

Above an orchard's ivied wall.

No time for courtliness and grace,

For patches, wigs and Flemish lace.

A poor life this! 'Tis true, so rest

Serenely, John, you held the best.

—"Vignette."

IT was an exciting day when all the wiring in the house was finished, the appliances installed, and the power turned on. We were, indeed, electrified. No more lamps to trim, no more scattering of dust with a straw broom, no aching back on washing day, and best of all, no scraping out of ashes and soot from the stove in the early hours. Surely there must be some drawback to all this modern convenience. No, there seemed no drawback to the delightful fact that life was going to be easier and more comfortable for everyone in the house—everyone? What about that important member of the family, Rebecca, the big black cat? She was a great hunter, and always took

anything." One problem runs something like this: "If two boarders stay at the same boardinghouse for the same length of time, and the amount of 'side' of one is equal to the amount of 'side' of the other, prove that their bills will be equal." The proof is: "If they are not equal, then one bill will be smaller than it might have been, which is absurd!" Another book by the same author that will cause an hour or two's laughter is "Nonsense Novels."—"Becky."

CAN science provide a substitute for tradition and religion? Philip Gibbs delves deeply into this problem in "The Age of Reason," and shows the drastic results of this new "cult" on people typical of our time. The familiar arguments for materialism are presented through a professor of biology and the family he has brought up under this doctrine. For a second wife he wins the devotion of the daughter of a canon, himself an ardent follower of the new "painless" religion. And here the trouble starts—conscience versus rational thought. As the novel progresses all types of our society are brought in and contrasted with the simple faith (now badly shaken) of the wife and the philosophy of the professor. The insincerity underlying the professions of each to his "cult" is revealed, and when everything is in a maze of contradiction the story is swiftly brought to a conclusion. Science fails. We are left with thankfulness that the age of reason is not yet with us—G.A.G.

PARIS pavements are to have luminous advertisements, over which the people will walk. Thick panes of glass are let into the pavement with electric lamps and mirrors underneath them. Coloured advertisements are thrown up on to the glass. The new advertising signs will also be visible in the daylight, for the sun's rays will shine through the glass on to the mirror, and the mirror will reflect the sign up again on to the glass. The swing of the pendulum! Former economists were strong on the point of keeping advertising down.—"Economist."

NOW that flowers are dear and scarce, it is a good plan to bring home from the country any sprays of berries or hips and haws that are to be gathered. Brush them over with a little gum, and they will not shrivel.

The Green Way

*I walked a green way
When the year was spring,
I saw a red bird
And a blue bird's wing.
I saw the buttercups,
Down a winding lane.
They shone goldenly
Through the spring's white rain.*

*I saw a tall youth,
As he sauntered by.
He tossed a glad song
To a larkspur sky.
I gave him a smile,
For the year was spring,
When trees oft are lit
By a blue bird's wing.
—"Lucibel Lee."*

Answer to Correspondent

"HOW could you?"—asks "Ivy Sen"—"after spending seven sleepless nights and as many pre-occupied days working out a most worthy solution to Problem No. 4, you spoil everything by inserting my nom de plume over a simply impossible one—for all to see! I find it hard to forgive you."

We really do owe you an apology. I think a lively sub-editor or a bored printer transposed the noms de plume for amusement. Do forgive us this once!—"Savoir-Faire."

EFFIE notices the error and in drawing our attention says:—

"I was not successful last week, but have tried again. I think it is a splendid competition, and as I live away in the backblocks and sometimes go weeks without seeing anyone other than my husband and little sons, I find it quite interesting to be able to take part in helping to solve the problems."

Advertising Electricity

Britain Moves Forward

TRADE papers from Britain give evidence that electricity is booming in the Home country, and provides at the moment one of the high spots of prosperity in British industry. Since electricity has become available in the home for both power and lighting, the task of the housewife has been made easier, and there is a definite swing toward the use of electricity in its application to domestic requirements.

It is stated that it is probable that the next few years will see a great increase in advertising activities as applied to the development of the consumption of electricity, and the added use of all electrical appliances. An extensive advertising campaign is now being conducted in the trade by various electrical companies in conjunction, in some cases, with the manufacturers of electrical cleaners, cookers and appliances.

At the annual luncheon of the British Electrical Development Association, Mr. Herbert Morrison (Minister of Transport), told the assembled members and guests: "It is not much use having a good thing to sell unless the world knows about it. Therefore, advertising is one of the essentials of most branches of modern industry. You should not rest content until the whole of Great Britain has been converted to the beauties and benefits of electrical supply."

A Youthful Lawyer.

Willie: Mummy, I tell everybody that you're the sweetest, prettiest lady I've ever seen.

Mother: Oh, come, darling, that's exaggerating.

Willie (stoutly): Well, that is my story, and I'm going to stick to it.

Rosy Red.

Dick: "Rose seems to blush a lot."
Donald: "Perhaps it's only put on."

Prize Poem Competition

THE prize of half a guinea this week is awarded to John Storm, whom we congratulate upon the skill of his phraseology and the versatility of his muse, exemplified in the musical imaginative "Cradle Song." Very close to it in literary merit, though not quite so completely rounded off, is the "Eventide" of J.R., the grave and dignified beauty of whose work is to be commended. In entirely different vein, we appreciated the quaint humanity of "Thur's" contribution, in which a dainty lady speaks her mind to plodding partner, whom with his endless talk of "shop" she finds "a most prodigious dull" dog, and we can't help hoping Benedict will mend his ways and take his pretty, preaching spouse to the pictures for which she confesses a penchant.

"Niobe," by no means all tears, sends some verse intended to be very funny indeed, but somehow it isn't. R.I.C. contributes a lay of a pretty, prancing dickie-bird, wherein perky is placed in juxtaposition with jerky. The rhyme is unquestionable, but something more than obvious jingle is needed, as is demonstrated by study of the poets, even the minor ones.

"Francesca": Extremely facile. Too many words and not enough thought in your ambitious ode to the elements.

"Jonathan" unsuccessfully tries his hand at a Shavian topic. Undoubtedly he has a flair for paradoxical expression, which would benefit by more extensive perusal of the plays of "the immortal Bernard" himself.

Cradle Song

*When the crimson sun is setting slowly,
And the poppies in the garden close,
When each flower is sleeping—calm and holy
Be those sunset hours of your repose.*

*Sleep, my dearest, sleep, the stars shine bright,
God His watch will keep through this calm night,
Sleep until the dawning; while I sing to you
Of the gifts that fairy hands shall bring to you.*

*Gifts of innocence, of joy, of laughter,
Faith and hope and charity twice blest,
That shall serve you in the long days after
When you forth go faring on LIFE'S quest.*

*When the moon at hide-and-seek is playing
With the stars among the mists of blue,
When each bird is nested, I am praying
Blest be sleep and dreams that come to you.*

*Sleep, my dearest, sleep, the stars shine bright,
God His watch will keep through this calm night,
Sleep until the dawning; while I sing to you
Of the gifts that fairy hands shall bring to you.*

—John Storm.

Fragments

(By Hearsay.)

IN 1560 Queen Elizabeth was presented with a pair of black silk stockings by one of her attendants, and she thereafter refused to wear woollen stockings any longer. Surely the "Age of Reason" is not a new idea.

THE members of a Philadelphia athletic club are attempting to grow hair by electricity. They have installed a machine, under which the patient sits, while the scalp is treated with ultra-violet rays and a cooling fan system. Evidently a new sport.

IF you are troubled with misty glasses when outdoors at this time of the year, try rubbing them with a little glycerine before starting out for the day. This will prevent the moisture in the air condensing on the glasses and causing annoyance. I learn on good authority it is no cure for seeing double.

IF you want a choker necklace to match any particular frock, you can bring any old one into line by winding coloured wool or crochet silk over each bead until it is completely covered. Thread a tiny gold or silver bead between each of the large ones and your necklace is complete. Of course, the modern Miss will need more than one choker.

DO not discard your next worn-out tire, but employ it as a cover for the spare. Cut out a short length (about 6in. or less) and slip it over the new spare, where it will afford protection against rain. There may be difficulty in cutting or filing through the wire beading, but overcome this, even at the cost of a few hacksaw blades and some candid comment. The protector can be given one or two coats of paint, and afterward enamelled a glossy black, or any other colour to harmonise with the coachwork of the car. A job recommended as especially suitable for men.

The Danger Sign

Nature's Methods

THE yawn, says this physician, is one of Nature's danger-signals. She is warning you that your lungs are in need of oxygen and that certain unused muscles in your face and neck are in need of exercise.

Fatigue, headache, and drowsiness are all induced by lack of oxygen in the system. They can also be resisted to a great extent by a plentiful supply of oxygen. Nature, being aware of this, and knowing of its preventive, gives her warning. You yawn, once or twice, perhaps, and the fatigue or headache gradually increases. You have not heeded the danger-signal at the first sign of fatigue. Go, then to an open window, stand erect and breathe deeply ten times with arms extended. Prolong the acts of inhaling and exhaling the air as long as possible.

Do this every ten minutes and in half an hour or less an increase of vigour will be noticed. Very often the incipient headache will have been driven entirely away.

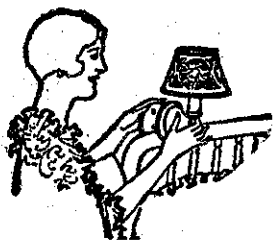
Few sleepers awake without the need of replenishing the oxygen in the system. This is why most of us have the impulse to yawn immediately on waking. It is not because we need more sleep, but because we need fresh air. Practise deep breathing exercises every morning for two weeks and the habit will be formed. It will seem as necessary a part of "starting the day" as one's breakfast, and it will surprise you how it will change your usual form of breathing.

You will soon breathe in a natural manner—that is, from the diaphragm—entirely filling the lungs, instead of breathing unnaturally, moving the chest only and filling but the top part of the lungs.

It is the seldom-used muscles that droop and sag as we grow older. Those that cause the unpleasant sagging of the cheeks are the muscles running from the ears to the corner of the mouth; those that extend from above the ear, over the jawbone, to the throat; and those directly under the chin. This sagging of the cheeks can be prevented, and, in every case, corrected to a great extent by giving these muscles exercises that harden them, and keep them in a youthful condition.

After practising your deep-breathing exercises on rising, lie down again, and place your pillow in a comfortable roll under the back of the neck. Your head will thus be thrown back, your chin will point into the air, and you will feel the muscles of your throat become taut.

Now, slowly, indulge in a whole-hearted yawn. Then, holding the mouth wide open, try to grin from ear to ear. Then, close the mouth slowly, puffing out the cheeks as far as possible, taking care not to pucker the lips. Keep this position for one minute and repeat the exercise five times. Then, write to me in about three weeks and tell me how much younger your husband says that you are looking.



How I will Spend my Guinea

A wedding to attend---I dare not ask for a sub. again---

I simply must win a Prize in the Spelling Bee says "Viva"

OF course, we are going in for the spelling bee! And so are you, you say? Well, good luck! I wonder how you are setting about it? We have decided on miniature spelling-bees of our own for practice, and check each other up on results. The only disadvantage is that each one of us, in our minds, anyway, has won at least a guinea prize. Then our thoughts begin to wander and we start discussing how we will spend it.

Amy, my sister, is all for utility. More power to her, say I. For myself, there is a wedding, to which I am invited, in the not too distant future. Would that it were more distant, or just so far ahead that my pocket money allowance would be due before the happy day. Since I dare not ask for a "sub." again, I simply must win a prize and solve the difficulty that way. If only I can be one of the lucky twenty-one, the difficulty will be solved. I have made a preliminary skirmish around the shops, and much can be achieved electrically with even a solitary order for a guinea in one's purse.



First of all, there is that dear little portable electric iron, made in such fascinating colours, tucked away in a case to match. Any bride, surely, would love to take it with her upon her honeymoon, to keep her frocks and "pretties" looking fresh. And hush! that only costs 12/6—I could squeeze out a couple of new lamps for my own bedroom, too, couldn't I? I even might persuade Dad that they were a necessity and get him to pay me

cash for them. That would be a real stroke of finance, wouldn't it? Or do you think that's mean? I think perhaps it is, a little, and yet it's so awfully tempting.

What I should really love to get is the darlingest little table lamp I ever saw. It is really a bargain, too, at only 19/6. Made in porcelain, the absurdly low price actually includes the artistic little shade. Just the thing for a bride's new sitting-room. There are others, as well, dainty porcelain statuettes, quite out of the ordinary, from about 22/6. I think it would be nicer to manage one of those.

THEN, someone suggested a portable heater. That really would be a sensible present. Ever such a nice one can be bought for 19/6. It would answer so many purposes, wouldn't it? It would take the chill from the bedroom at nights, make the dining-room cosy for breakfast in the mornings, warm the bathroom up to a "comfy" state, or warm the hall. I must sound the bride about it.

Mother

favours the idea

of a lamp-shade, and

certainly they are lovely, and

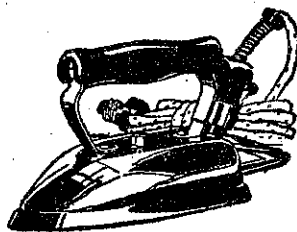
such a selection from which to make

a choice. All of them are artistic, and they

can be dignified-looking or as frivolous as you please.

Goodness knows, they are cheap enough, too! Quite pretty ones, in silk, are only 5/6, going up to 25/- or 30/- for really important-looking affairs. Paper ones are not to be despised, either. Of course, not the old "common or garden" frilled ones, but those that are already provided with suitable wire frames, go right over the top of the lamps and are decorated with delightful little figures in silhouette.

One could manage a whole set of those, in different sizes, for a guinea. They are such lovely colours, too.



A BED-HEAD lamp would be a good present, I think, and could be managed for a guinea or very little more. Not one of those straight-up, rigid contrivances that send the light everywhere but the place you want it, but those that wriggle round to any angle, with shades that can be adjusted as well. Some of these are made in a new material, with a marbled and opalescent effect that lets some of the light shine softly through. Anyone should be pleased with any one of them.



I can't remember now whether the bride is keeping her permanent wave for a permanent possession, or I would give her a pair of electric curling irons. They really are nice, and so quick and reliable. Fitted with a comb, too, they can be used also for drying the hair after a shampoo, and will also set a lovely wave. If she prefers the old-fashioned variety, she might like one of those neat little electric heating stands, which will also warm up a glass of milk or hubby's shaving water. That would be useful on a honeymoon, I should think.

If someone would join forces with me, we could get a really handsome standard lamp for from two to three guineas. Everyone admires those. I heard of a doctor who bought six (Continued on page 40.)



Speeding Up News Newspaper Schemes

AN Australian trade paper reports a case of interest in connection with radio and the use made of it by an up-country Australian newspaper. It appears that this particular newspaper depended for its late news on long-distance telephones, and had installed elaborate equipment to enable it to get news quickly. In recent times, however, the paper concerned suffered from departmental delays, and was not able to get telephonic calls at fixed times, in addition to which charges for Press telephones were increased by the Australian authorities by 38½ per cent.

In these circumstances, being unable to get race results with the promptitude necessary, the newspaper concerned turned to radio. From the loud-speakers reporters took down the race results within two or three minutes of the completion of the race. Publication was thus made in ample time, whereas if the news had to come over the telephone or telegraph the edition could not be caught. Under the Australian law, however, this constitutes a technical breach of the postal regulations. These provide that newspapers shall transmit their news by telegraph or telephone.

This regulation is designed to protect the revenue of the Postal Department from encroachment by undue reliance upon radio. Action was therefore taken against the publisher concerned, with victory to the department.

The same general regulation in all probability applies in New Zealand, but, if so, it is not administered as strictly as in the Australian case, because it is almost a common practice for certain newspapers in the Dominion to rely upon radio for either broadcast descriptions of important football matches or boxing and other sporting results at certain times. This certainly seems a case where elasticity in the administration of departmental regulations is desirable. Press wires, of course, are received as well, so that departmental revenue is not affected.

THE football announcers who have been describing the matches against the British Rugby team have, on the whole, done excellently. A tendency, however, to the too-frequent use of the word "I" has been commented upon by Wellington listeners. This is, in the writer's opinion, but a trifling flaw, but it is quite remarkable how quickly listeners observe such things.

ARE YOU A SMOKER?

Thousands of smokers are to-day only half alive and don't know it! They find it hard to concentrate and easily fall a prey to disease that robs them of their vital powers—all as a result of the deadly effects of Nicotine Poisoning. Why continue to neglect your nerves and wreck your health, your greatest asset? Write to-day for wonderful FREE Book on the dangers of Tobacco. It will astonish you.

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36.R. Hunter Street, Wellington.

Observations on "New Zealand" Night

Some Biographical Sketches



FOLLOWING are some interesting biographical sketches on the composers whose work figures in the special New Zealand programme to be presented from 3YA next week:—

Dorothy Filkins, L.C.C.I.

MISS FILKINS, who has adopted the pseudonym "Gene Doryn" for her music writings, was born in Dunedin, but is now resident in Knowles Street, Christchurch. Her love of music developed early and she studied the piano in Dunedin, where her early childhood was spent. A severe illness, which kept her from the piano for nearly a year, overtook her when a child. During her convalescence she wrote little tunes and airs, which apparently implanted the ambition to do bigger things in composition, and when her people removed to Christchurch she studied theory and other branches of elementary composition under Dr. Bradshaw at Canterbury College.

That she was a bright pupil is proved by the fact that she completed in two years a course that ordinarily takes three. The Society for Imperial Culture, Christchurch, in 1928 offered a prize of £50 for the best original composition, giving contestants the choice of writing either a cantata on "Prometheus Unbound" by the poet Shelley, or a string quartet. Miss Filkins did not avail herself of the option, but wrote both the cantata and the string quartet.

Miss Filkins was awarded the prize. Both these works are to be performed this evening, and also a 'cello solo, "Nocturne," and a song "slumber song," written by Miss Filkins.

Harry Rossiter.

HARRY ROSSITER was born in Christchurch, but spent his early teens in Dunedin, where he studied composition under the late Mr. A. J. Barth—a very gifted musician, who resided there for over a quarter of a century, and to whose guidance several musicians of note owe much of their success.

Mr. Geo. H. Moore, now well known in London musical circles, was a fellow student under Mr. Barth, when Harry Rossiter was in Dunedin. On one occasion, wishing to test his pupil's progress, he asked Harry Rossiter to "write something in three-four time." Harry retired to another room and wrote a waltz. Showing it to Mr. Barth, he was questioned as to its originality and spontaneity, and when satisfied on these points, Mr. Barth made one or two suggestions, after which it was immediately published, and became instantly popular as the Onslow Waltz. It was dedicated to Lady Onslow, wife of Lord Onslow, the then Governor of New Zealand. The Onslow Waltz is still a good seller.

Mr. Rossiter has written several

works, some of them big and ambitious, and some of them performed with conspicuous success. His song "Zealandia" about to be sung, gained instant success, has gone through several editions, and is still a popular song throughout New Zealand. The words are by the late Mr. R. Thompson, founder of the firm Milner and Thompson, predecessors of Chas. Begg and Co., Ltd., Christchurch, and are well worth the composition which adorns them.

The Aria O Salutaris Hostia—also on to-night's programme—was written in Christchurch, and on Madame Dolores's visit many years ago she was shown a copy, which pleased her to the extent that she decided to sing it, which she did, with thrilling artistry, in the Pro-Cathedral, the composer standing, unseen, immediately behind her during its performance.

Madame Dolores very warmly complimented Harry Rossiter on the reverential charm and merit of O Salutaris Hostia, and has several times written from different parts of the world for copies of same to replace worn-out ones. This will be sung this evening by Miss Lillian Hanham, with violin-obbligato and 'cello obbligato by Miss Irene Morris and Mr. Harold Beck respectively.

Frank Hutchens, A.R.A.M.

MR. HUTCHENS, who has been a Professor at the Sydney Conservatorium of Music since its reception, was born in Leeston over 30 years ago. His parents moved up to Taranaki while he was very young, and where the early development of the talent he doubtless possessed asserted itself.

Fortunately both his parents were ardent devotees of music and both gifted in this direction. This is doubtless the origin of Frank Hutchens's genius, and his father—an accomplished musician—gave the boy the best possible advice and tuition in the circumstances to such purpose that Paderewski, on his first visit to Wellington, consented to hear the boy play, and immediately recommended his being sent to Europe. By considerable self-sacrificing and energetic effort on his parents' part this was ultimately achieved, and he was admitted straight into the R.A.M., London, and without any preliminary course such as is usually imposed.

His success there was meteoric; he won every scholarship for which he competed and returned to New Zealand with many honours. He toured Australia and New Zealand as pianist to Toscha Seidel, the great Russian violinist, with whom he scored many notable successes. As a teacher he is proving equally successful, one of his pupils, Linley Evans, having been selected by Melba as her accompanist on her last grand concert tour of Australia. Three of Frank Hutchens's compositions are on this evening's programme, i.e., "Instrumental Trio, F Sharp Minor," "Pianoforte Trio," "Andante and Elegie" (violin solo).

Waikato's Plight

(To the Editor.)

RE the discussion on the elimination of the silent night, I am inclined to agree with one of your correspondents who suggests that there are more pressing matters to be settled.

Has the following anomalous situation been appreciated by the R.B.C.? That, 2YA being geographically situated to serve both North and South Islands equally, the North Island has only one station, 1YA, and the South Island two, 3YA and 4YA? This position is all the more extraordinary when it is realised that the number of North Island licenses is double that of the South.

The most casual inquiry will reveal the fact that beyond a radius of 50 miles or so 1YA might as well be off the air after sunset.

I have been demonstrating radio throughout the Waikato and Bay of Plenty for over five years, and I have yet to find a single listener who can obtain any satisfactory reception from 1YA except in the afternoon.

As paying approximately two-thirds of the revenue derived by the R.B.C., the North Island is certainly entitled to better service than this, and the astonishing thing is that it has endured so long in comparative silence such wretched reception as is the general rule.

My suggestion is a relay station, somewhere between Auckland and Wellington, and it seems to me Rotorua deserves consideration, as it is not only fairly central but has the inestimable advantage of being well off for Maori talent—surely the most popular form of musical entertainment in New Zealand.

Before the R.B.C. incur any further expense I would like them to send a representative round the districts I have mentioned and ascertain the conditions we have to demonstrate under. It is a fact that before a sale can be effected the customer has to be disillusioned, and educated, to put up with fading and distortion and weak signals as the general rule and perfect reception as the exception.—C. J. Fleming (Taneatua).

Questions and Answers

An Additional Answer.

"EXPERIMENTER" (Christchurch) asks for constructional details of a twin coupler, antenna coupler, and a twin coupler inter-stage R.F. transformer with tickler, for an A.C. Brownling-Drake screen-grid tuner.

A.: Rather a tall order. We don't mind helping a constructor in difficulties, but we are not particularly thrilled about the idea of having to work up an article for one particular constructor. A great deal of experimenting is needed before satisfactory results can be obtained with S.G.O.S.

2. What is the voltage drop in a 280 rectifier?

A.: 10 to 30 volts according to the load.

WHEN using a voltmeter or milliammeter be sure to connect it in circuit the right way round, as marked on its terminals.

Spending My Guinea

(Concluded from page 38.)

in a few weeks for brides-to-be in different parts of the country, because the first one was so pleased, and they were all most enthusiastic about them. They really do make a room, don't they?

Then, too, I could ask her if she would like a crystal fitting for her bedroom, one that would do duty equally well downstairs, or an adjustable plaque lighting fitting that will plug into any point over a table for cards, writing, or sewing. She might like a pair of electric candles or a little motor contrivance that will dry the hair, clean and renovate a fur coat.

I believe, too, you can get tiny electric clocks. And then, there are heating pads, large and small. They are very useful for travelling, especially for warming up beds both away and at home.

Oh, I don't know—there are such a lot of lovely and sensibly useful things one can get for a guinea, or thereabouts, in the electrical way. Let's get on with the spelling.

Trials in Tact

(Concluded from page 30.)

Mandeb, 3; Ben, 4; Miss Rachael Baker, 0; Bonza, 4; Barbara, 0; Clara, 3; Clericus, 3; Campfire, 4; Deerfoot, 5; Duplex, 4; Diabolo, 3; Devon, 4; Ecanan, 4; Effie, 5; Equity, 4; Fanny, 4; Frances, 5; Flirt, 3; Flora, 4; Grace, 4; Gunga-din, 5; Haven, 4; Heather, 3; Hopscotch, 4; Ivy Sen, 5; Irene, 3; Iambic, 4; Jonquil, 4; Jimmy, 3; Mrs. Jones, 4; Kummel, 4; Kate, 3; Kia-Ora, 4; Lucid, 4; Lambton, 5; Michael, 5; Mrs. Mason, 5; Myra, 4; Mavis, 5; Magpie, 5; Maybelle, 0; Nemo, 5; Nintz, 4; Natural, 4; Nomem, 5; Norah, 4; Never-Never, 0; Nippy, 3; Mrs. Oldman, 4; Olivia, 3; Octopus, 0; Open-Door, 4; Oneeny, 5; Pat, 4; Pumpkin, 3; Pansy, 0; Plume, 0; Queery, 4; Quince, 5; Radio, 5; Rosa, 3; Richmond, 0; Radex, 4; Sardonyx, 5; Scylla, 0; Spoofy, 3; Thames, 5; Tuner, 5; Topaz, 5; Tommy, 0; Undine, 5; Unomi, 3; Vivat, 5; Viator, 5; Viola, 0; Verity, 4; Wynward, 3; Weaver, 5; Waterway, 4; Watchful, 0; Xerxes, 4; Xylonite, 5; Yum-Yum, 5; Youngster, 3; Zenobia, 5.

"Deerfoot's" solution of Problem No. 5 was received too late for inclusion in last week's list. It was correctly postmarked and he has been credited with 2 marks.

Short-Wave News From An American Amateur

IT may interest New Zealand short-wave listeners to know that station G2NM, owned by Gerald Marcuse (who was one of the pioneers in short-wave broadcasting), will shortly be transmitting programmes on a wave length of 21 metres. G2NM will be on the air on Sundays from 18.30 until 20.00, Greenwich mean time, according to information I have just received from England, and will also transmit at other times. Station PHI, Huizen, Holland, is now on daily (excepting Tuesday and Sunday) from 13.00 until 16.00, G.M.T., on 16.88 metres.

during April of this year. I have had Zeesen only five times at loudspeaker strength during March. As this station is never on after 6.30 p.m. our time, I seldom hear it well because the Europeans around 31 metres do not attain loudspeaker strength before 6 p.m. at any time of the year. This station is louder than PCJ here, but PCJ transmits special programmes for the American Continent at a time which is favourable for best reception here. KZRM, on 26.3 metres, is very poor here. VK2ME is more consistently received than any European short-wave

How to Govern a Woman Electrically

If she talks too long -	-	-	-	-	-	Interrupter
If she is something of a devil -	-	-	-	-	-	Transformer
If she picks your pocket -	-	-	-	-	-	Detector
If she meets you half way -	-	-	-	-	-	Receiver
If she is too excitable -	-	-	-	-	-	Controller
If she goes up in the air -	-	-	-	-	-	Condenser
If she's hungry -	-	-	-	-	-	Feeder
If she sings out of harmony -	-	-	-	-	-	Tuner
If she is a poor cook -	-	-	-	-	-	Discharger
If she is wrong -	-	-	-	-	-	Rectifier
If she indulges too much in gossip -	-	-	-	-	-	Regulator
If she gets upset -	-	-	-	-	-	Reverser
If she wants to go home to mother -	-	-	-	-	-	Transmitter
If she shocks you -	-	-	-	-	-	Insulator
If she is too thin -	-	-	-	-	-	Amplifier
If you want to know how she feels toward you -	-	-	-	-	-	Sounder

—F.P., in "Wireless Magazine."

The address of PHI is N. V. Philips, Omroep, Holland—Indie, Kelzersgracht, 722, Amsterdam, Holland.

The address of the Zeesen, Germany, station on 31.38 metres, is: Reichspost-zentralamt, Telegraphentechnisches Reichsam, 11-15 Shoneberger Strasse, Berlin, Tempelhof, Germany.

Short-wave reception has been very poor here since April 5, European stations on all wavelengths being very poor since that date. This month has always been one of the best for European stations, but has been unusually poor this year, as I have had 5SW only four times at loudspeaker volume

station, although the distance is more than twice as great.

The 44 metre U.S. 'phone station reported by so many readers of the "Record" is WND, which is one of the trans-Atlantic 'phones in the New York-London 'phone circuit. The U.S. station referred to by the Gisborne reader in the "DX Club" column as WGAM, Cleveland, Ohio, was undoubtedly WT-AM, Cleveland, on 1070 k.c. or 280.2 metres. He stated that the station he heard was on 1075 k.c. There is no station operating here on 1075 k.c. as the channels here are spaced 10 k.c. apart.

The 1070 k.c. channel is used by WT-AM and the next channel is 1080 k.c. The station referred to by Mr. Morrison (in the March 21 issue of the "Radio Record") near PCJ's W.L., could possibly be NRH, of Heredia, Costa Rica. He mentions hearing donations, acknowledged. NRH has been doing this and the time of day fits in with NRH's transmissions. If he heard this station he has probably made a world's record for DX, as this station uses only 7½ watts power.

The Mexican station he referred to might be XC51, San Lazaro, Mexico, as this station is included in a list I have, but I have no record of receiving it. I have heard NRH at R8 to R9 many times at a distance of 2000 miles. The 26 metre station KAIXR referred to by Mr. Evans was the regular 26 metre short-wave transmitter of KZRM at Manila. The present prefix of the

Philippine Islands is KA. I have heard the new Italian short-wave transmitter, I3RO, on 25.4 metres, testing with gramophone records with volume better than G5SW. These tests have been between 13.00 and 15.00 G.M.T.

The address of I3RO is Ente Italiano Audizioni Radio Foniche, Rome, Italy. The sets I use for SW reception are a 4-valve screer-grid set with a tuned H.F. stage and a 7-valve double detection (super heterodyne) receiver. I am very keen on short-wave reception and I also like to correspond with short-wave listeners. I would be pleased to hear from any New Zealanders.—Fred Easter, 3353 Southside Avenue, Cincinnati, Ohio.

Tips and Jottings

ONE little-known method of overcoming persistent humming interference is to bring a coil associated with the source of disturbance close to the receiver, and arrange the coupling with the coil so that the effect upon the set shall be equal in intensity and opposite in direction to the disturbance which is being picked up.

ALTHOUGH 2-megohm leak may be ideal for ordinary reception, on short-waves this resistance value is generally too low, and 4, 5, 6, 7, or even 8 megohms may be tried to increase sensitivity.

TO many constructors and experimenters the following table of capacities in parallel and in series will be found useful:—

Separate Capacities.		Combination Series. Parallel.	
.0001 and .00025		.000071	.00035
.0001 and .0005		.000083	.0006
.0001 and .001		.000093	.0011
.0001 and .005		.000095	.0021
.0001 and .005		.000098	.0051
.0001 and .006		.000098	.0061
.00025 and .0005		.00016	.00075
.00025 and .001		.0002	.00125
.00025 and .002		.00022	.00225
.00025 and .005		.00023	.00225
.00025 and .006		.00024	.00225
.0005 and .001		.00033	.0015
.0005 and .002		.0004	.0025
.0005 and .005		.00045	.0055
.0005 and .006		.00046	.0065
.001 and .002		.00066	.008
.001 and .005		.00083	.006
.001 and .006		.00085	.007
.002 and .005		.0014	.007
.002 and .006		.0015	.008
.005 and .006		.0027	.011

SOMETIMES a listener will unexpectedly find his dry cell "A" batteries run down just when he requires them urgently, and when he is unable to procure new cells. A visit to a chemist's shop, however, would save the situation. Here is the formula:—First remove the outer cardboard covering of the dry cell, and then take some sharp implement and with it punch a number of holes in the exposed zinc container. Now take a jar large enough to hold the cell and some liquid in addition. Take sal ammoniac and water in the proportion of 2oz. to the pint and dissolve the chemical in the water. When ready, place in the jar with the old cell. Connect to the terminals as usual. This method will considerably prolong the life of cells which are not "too far gone" to rejuvenate.



BETTER CAKES & SCONES

—If you haven't already heard this cooking hint over the radio, you'll welcome it now.

Better cakes—better scones. Simply add a few spoonfuls of ANCHOR SKIM MILK POWDER to the mixture. Cheaper than ordinary milk—makes your baking lighter, more delicious, more nutritious, and keeps fresh for DAYS longer.

Grocers throughout New Zealand stock ANCHOR SKIM MILK POWDER. Price 1/3 per tin. For Free Folder of Tested Recipes, write to-day to, "Anchor," Box 844, Auckland.

COUNSEL for the COOK

Delicious Tongues

Method.—Wash and cook 4 sheep's tongues and cook until tender. Skin, and when cold cut into slices. Boil 3 large onions (sliced) in a little water until tender. Add 1 cup of milk, salt and pepper, and the sliced tongues. Just before serving thicken with corn-flour made smooth in a little cold milk. A delicious dish for a cold day, served with mashed potatoes.—"Avon."

Speedy Sponge Sandwich

Method.—Put four eggs and their weight in sugar into basin and beat hard for 10 minutes. Add by degrees

Carrot Marmalade

THIS week's prize of 5/- is won by "Black Cat" with the recipe for carrot marmalade.

Ingredients: 4 carrots, 4lb. sugar, 4 lemons or oranges, 4 pints of water.

Method: Grate the carrots, take the juice from lemons or oranges and cut up the rinds finely. Put carrots, rinds and juice in the water and soak for twenty-four hours. Put in jam-pot, and bring slowly to the boil, then add the sugar. Boil until a little of the mixture will jelly on a saucer.

mi. of sifted flour in which has been Essad one teaspoon of baking powder. meance to taste. Lastly add 1oz. of tilled butter. Pour into well-greased t. and bake in a brisk oven for 20 minutes.—"Gabrielle."

Cream of Tomato Soup

SLICE 1lb. tomatoes into a pot with a small onion and a piece of butter the size of a walnut. Cook slowly, stirring occasionally. When the tomatoes are soft, add a good pinch of baking soda, and put through a sieve. To every pint of pulp add 1 pint of milk. Bring to the boil and thicken with 1 tablespoon cornflour blended with a little cold milk, and about two tablespoons butter, and serve hot with sippets of toast. This soup never curdles.—"Bethel."

Individual Cheese and Celery Trifles.

THESE savoury trifles are particularly delectable, and suitable for evening parties where the guests help themselves from a buffet supper:

Ingredients.—Line some small patties with thin puff paste, then mix 2oz. grated cheese, 2oz grated heart of celery, yolk of 2 eggs, a little salt, cayenne, and pepper, 1 tablespoonful of cream.

Method.—Whisk the whites of the eggs to a stiff froth, and stir lightly into the above ingredients; put a little of this mixture into each lined patty-

pan and bake in a quick oven.—Jose Masterman.

Apple Pudding.

Ingredients.—One egg, 1 cup sugar, 3 tablespoons butter, 1 teaspoon baking powder, ½ teaspoon salt, ½ cup milk, 1½ cups of flour, 6 or 8 apples.

Method.—Beat egg and sugar until creamy, add melted butter and beat again. Sift dry ingredients and add alternately with milk. Place apples, peeled and quartered, in baking dish, and pour batter on top. Bake in oven 375 degrees, top element off, bottom element low. Time, one hour. Serve with cream or sweet sauce.—"Bethel."

Delicious Egg Junket.

Method.—Break 2 eggs into a glass dish, add 1 teaspoon sugar, and beat till foaming. Heat 1 pint milk as for junket, stir in 1 teaspoon rennet and ½ teaspoon vanilla essence, and pour in with the eggs. Put aside to set.—Miss E. Francis.

Queen of Tarts.

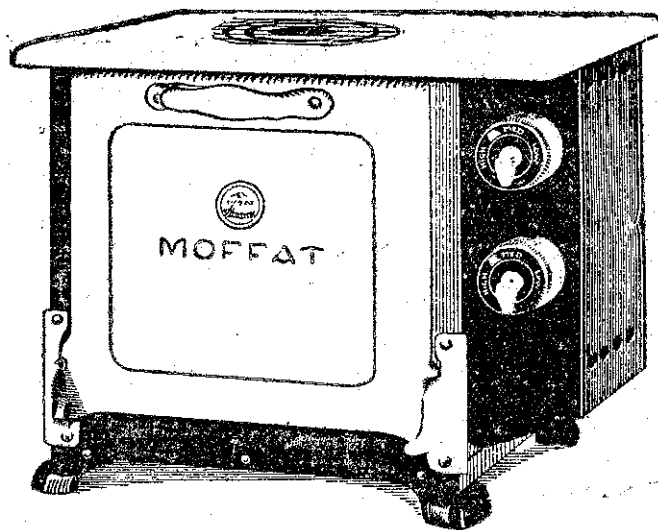
Method.—Line a sandwich tin with short pastry. Melt 1oz. of butter, beat the yolk of an egg well, and mix these together with about ½lb. of orange marmalade, beating them together for a few minutes. Spread this on the pastry and bake in a moderate oven. When the mixture is set let it cool a little, then whip the white of egg to a stiff froth, stir in a little castor sugar lightly, spread this on the tart, return to the oven and let brown lightly. Serve hot or cold.—"Nuomi."

ADDITIONS to knowledge about the vitamins, or accessory food factors, are being made with great rapidity. A few years ago, for example, it was believed that vitamin A served the double function of promoting growth and preventing the onset of rickets. Evidence has since become available that vitamin A is the agent responsible for maintaining bodily resistance. It is shown that rich supplies of vitamin A are present in the livers of a large number of animals, and further that carrots, green vegetables, butter and egg-yolk contain supplies.

The study now has been pursued from a different angle. Experiments with the substance known as "carotene" favour the view that the efficacy, as sources of vitamin A, of carrots, green vegetables, and even butter and egg-yolk, depends on the presence of carotene, and that it should prove valuable both as a prophylactic and a therapeutic agent. It is much easier to administer than liver-fat and may be expected to act more quickly.

Incidentally, the popular belief in the value of carrots and green vegetables finds a new justification. These articles of diet it would appear, play an important, and even essential, part in fortifying the body against infection. Carrot and other vegetable soups and dishes ought, on this showing, to occupy an important part in the food of children.

Plug in this Moffat Range where you like.



Neatly enamelled for permanent, easy cleaning, it will look in keeping with any surroundings. It will cook well for four or five persons.

On top is the boiling element which, at high heat, will send water steaming hot so quickly and at low heat it will broil gently for hours without using much electric energy.

Lift the door handle to get to the oven, and the two steel hinges at the bottom hold the door level with the floor, so handy. The interior is all enamel one-piece welded steel. No corners to tarnish, and the elements are top and bottom, out of the way, and placed to direct most heat to the centre of the oven. The thermometer registers the heat at this spot, e.g., the centre of the oven.

Between the inner and the outer casing of the range is the lagging which keeps the heat in the oven. This scientific lagging is a feature to ensure economy for ever.

All wiring connections are made outside the lagging so that heat is kept away from the insulations.

The elements are made the same as elements for enamelling furnaces where they hold a temperature 1600 deg. Fah. day and night.

In domestic service the elements do not go above 500 deg. Fah., so they are stronger than they need to be.

The length of fully-armoured flexible connection ends in a plug for any heat point. This may be connected to an iron point.

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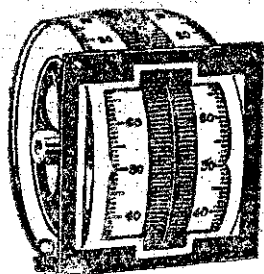
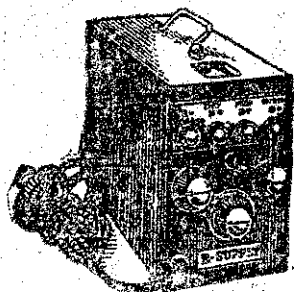
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SECTIONAL CONTENTS

SECTION 1.—Yesterday, To-day and Tomorrow: The story of broadcasting in New Zealand, told from an interesting angle—illustrated with photographs.

SECTION 2.—Beyond the Controls: Tells when the switch is turned how music and entertainment come from afar. The language is simple, yet nothing essential is left out. Deals with the modern set, and goal—selectivity, sensitivity and quality. There is a section on speakers covering four pages and illustrated by ten diagrams and pictures—and all new matter.

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SECTION 4.—Learning by Doing: The constructor's section. Knick-knacks that every constructor will delight to make. Transformers for every purpose; wavetraps and another crystal set. "A" eliminator; a pushpull to

amplifier; home-built "B" accumulators; the two-valve A.C. Brown-Drake with power detection; the D.C. Hammarlund Roberts brought up to date.

SECTION 5.—From Near and Far: The short-wave section, containing an A.C. adaptor and a D.C. receiver that will bring in 5SW (England) on the speaker.

SECTION 6.—Within the Vacuum: Explaining all about valves, with full tables.

SECTION 7.—Searching the Ether: Call-signs of every station—broadcast short-wave and amateur likely to be heard in New Zealand.

SECTION 8.—When the Set Goes Wrong: Tracking troubles with condensed schedules for immediate location of troubles.

SECTION 9.—Facts & Figures: Handy and unusual tables, with a gramophone speed indicator, all ready to clip out (there is nothing on the back).

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