

Radio Pageant of Maori Life---

Souvenir Number



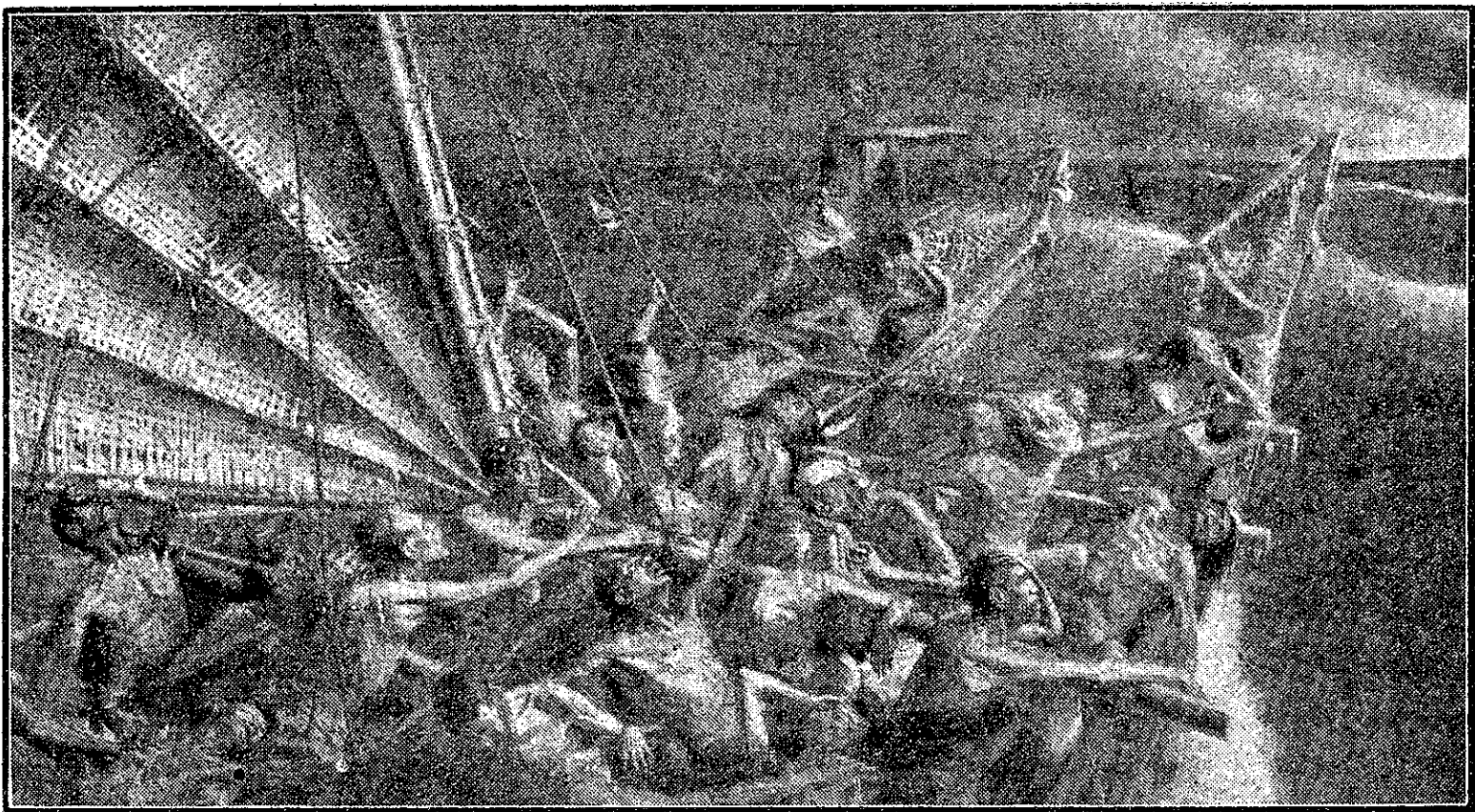
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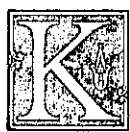
WELLINGTON, N.Z., FRIDAY, FEBRUARY 3, 1928.



"ARRIVAL OF THE MAORIS IN NEW ZEALAND."—This is a reproduction of the famous painting under this title by C. F. Goldie and J. Steele, which was presented to the citizens of Auckland under the will of Helen Boyd.

—S. P. Andrew, photo.

Romantic Life of the Maori Race Unfolded in Radio Pageant



NOW New Zealand! "Breathes there a man with soul so dead who never to himself hath said, 'This is my own, my native land?'" Then, "Know New Zealand!"

By birth or by adoption, it matters not which, it is your land, the land whereon you live and move and have your being, a beautiful land into whose lap Nature with bounteous hands has poured a rich abundance of her choicest gifts—a goodly land we all should know, and knowing, love more dearly as our own.

This is the thought and purpose behind the Radio Broadcasting Company's presentation of this wireless pageant commemorative of the signing of the Treaty of Waitangi, which, in the form of a unique informative entertainment, is to be broadcast from 2YA on the evening of the anniversary of the consummation of that historic pact. What more appropriate than an event of such signal significance and importance to Maori and Pakeha alike could have been chosen to initiate a sustained effort to bring home to the people of the Dominion, and especially to the young folk of both races, a deeper knowledge of the affairs of their country, a clearer conception of its worth as one of the brightest gems of the Empire, and a more vital realisation of the obligations of our individual citizenship?

Plotting together for the common weal, Human Genius and Science have worked many wonders since that far-off day when Maori and Pakeha penned their signatures to the Treaty of Waitangi; but by far their most beneficent gift to the world has been the adaptation of the miracle of wireless telegraphy to the broadcasting of music, song and story into the homes of the people. As did the Bards of old attune legend and tradition to the facts of history and with melodious song and winsome story endow their hearers with knowledge and appreciation of their country's glories so in these later days shall not the Bard of Radio, whose voice ranges triumphant over the limitless leagues of space, make informative entertainment the medium whereby every New Zealander shall be enabled to "Know New Zealand" as New Zealand deserves to be known.

AND so, in fitting complement to this modern miracle, you are to hear from the representatives of a noble race, a race deep-rooted in an ancestry of dauntless warriors, the story of a people's emergence from the rugged simplicity of their natural state into a full partnership in all that European civilisation means to the world.

The Wanganui Maori Party, to whom has fallen the honour of broadcasting this entrancing tale, will not weary you with a tiresome narrative. They will present the pages of their history in melodious song and piquant story—and 'tis common knowledge that the melody of the Maori is as the fragrance of the rose, a natural heritage. Indeed, as Mr. Hamiora Hakopa will tell you, in order to assist in creating the right atmosphere for the presentation of their entertainment, the organisers have drawn upon the Hon. Sir Apirana T. Ngata's great poem, "Scenes from the Past," and it is in the fine poetic spirit of that work that the six phases of this remarkable programme have been framed. It is a very clever, a very appropriate classification, entailing, we have no doubt, much studious preparation. It gives us the Maoris, as they were, if not literally from Genesis to Revelation, then assuredly from their Advent to these shores right up to this happy era of Maori-Pakeha brotherhood, with adequate, eloquent and picturesque Revelation of the intervening episodes. Phase One portrays

THE COMING OF THE MAORIS

to these shores. Let it be noted here that this most interesting beginning of a wholly interesting tale, as also the five subsequent instalments, will be told by a Maori in English language. Just as he has written it, so shall listeners hear it from his lips. This is in itself pleasantly significant. Interpret its significance in conjunction with the fact that others who are to speak to you on this memorable occasion are also Maori gentlemen of high academic and political distinction, ranking in full equality with the foremost scholars and statesmen of their Pakeha brethren, and you will realise how full of absorbing interest must be the story of a race which within the brief span of one hundred years has stepped completely out of primitive savagery into full and intimate equality with the Pakeha.

Following the introductory narrative, the members of the Party will reproduce for listeners as correctly as possible the scenes of the historic landing of the Maoris—or shall we say the Polynesian pioneers—on Aotea Roa, the Long White Cloud. They will endeavour to bring before your mental vision the picture of the frail craft—the canoe—with its human freight away in the distance, making towards the shore, the solemnity of the actual landing, and the subsequent ceremonial of thanksgiving.

Here, though you cannot see what is taking place, you will hear the thud, thud, thud of dusky feet keeping fierce but rhythmic time to the lusty chanting of the Haka of Thanksgiving—and whether it be that you have never heard a haka before, or that you are familiar with its awesome spectacle, your heart will be ice cold if it is not thrilled by this radio presentation of an incantation which is aflame with the indomitable spirit of warriors who even in their savagery were wont to fight and die like gentlemen.

In the next phase 2YA will introduce you to **THE MAORIS AT HOME IN THE EARLY DAYS**, and as you sit in the quietude of your homes there will unfold a vision of primitive industry in a setting of primeval beauty. You will visualise the old-time Maori village, or pa, with its wharepuni, or meeting-house, standing out in imposing contrast to the more humble dwellings of the inhabitants, and you will find the inhabitants themselves spending their time usefully, interestingly, and, not infrequently, strenuously. You will actually hear some of the boys at play, their pastime at the moment you happen to be listening being "cats' cradle" and "mate mate." But suddenly the quietude and routine of village life is disturbed. A courier has announced the coming of visitors. What a commotion! The haka party must be mustered and hurried to the entrance of the pa to await the coming of the visitors; the rest of the people must be assembled in the marae ready to join in giving the coming guests a fitting welcome. Listen to that weird melody. The exchange of greetings! Which do we hear first, the visitors or the hosts? But no matter, 'tis good hearing—the chanting, the singing and counter-singing, the thud

(Continued on page 2.)

Romantic Life of the Maori Race--Continued

of the haka, what a time! what a time! for all concerned. Yet every step must be taken decently and in order—the welcome, the speeches, the feasting, all must be in strict accordance with an etiquette as rigid as ritual. In this phase you will hear the girls and boys of Wanganui in an ancient "Poi"; the men of the Party in the grand haka "Tua ka Tau," led by Rope Tamariki; instrumental music, songs, and perhaps some more stirring hakas. Then, in the third phase, comes

THE DAWN OF A NEW DAY,

the first of two scenes designed to depict the beginnings of great movements, spiritual and political, which were in the ensuing years to altogether revolutionise the conditions of life and conduct of the Maori people. Here we have the coming of the Missionaries, the sowing of the seeds of Christianity, followed, unhappily, by the misunderstandings which led to the tragedy of the Maori Wars. Happily the days of strife have long since passed away, and to-day the two races live as one in friendly relationship beneath the Union Jack, sharing the privileges and responsibilities of a common citizenship. It is in this phase that the Hon. Sir Maui Pomare, who as a Parliamentary representative of the Maori electorate holds Cabinet rank in the Government, will tell you about the Treaty of Waitangi. The fourth phase,

THE MAORIS IN THE GREAT WAR,

will be opened with an appropriate instrumental selection, and the chorus "Ope Tautahi." This will introduce the Prime Minister of the Dominion, the Right Hon. J. G. Coates, whose soldierly record must give the emphasis of sympathetic and appreciative comradeship to the eulogy he has so gladly consented to voice. His theme will be "The Maoris' Part in the Great War," and who better could pay tribute to their valour than one who saw service with them in the same grim arena and shared with them the perils and privations of those dreadful years? There is in the Dominion to-day probably no man burdened with a harder, more continuous, or heavier



TANA POTAE.
Denton, Photo.



MOREHU PEREPE.
Denton, Photo.

strain of duty than that which is pressed upon the shoulders of Mr. Gordon Coates. He has the reputation of being a tiger for work, and the seemingly unending claims upon his time and attention keep him going at high pressure early and late, day in and day out. That he should have seen fit to literally "make time" to voice this eulogy is evidence of the warmth and sincerity of his appreciation of the part so nobly played by the young men who in the hour of trial proved themselves worthy descendants of the warrior rangitiras from whom they sprang.

After the Prime Minister has spoken, listeners will hear one of the most impressive, as well as beautiful, items of the evening, the singing of the Memorial Hymn, "Piko nei te Matenga" ("When Our Heads Are Bowed With Woe"), which has been specially dedicated to the memory of those who fell. In more lightsome vein, the fifth phase will picture

THE MAORI IN SONG AND PLAY TO-DAY.

Here will be demonstrated, with music and song, something of the progress the Maori has made during the intervening years. Quite a number of very delightful items are to be presented during this stage—songs, choruses, elocutionary numbers, etc. By the way, in connection with the "Long Poi," if you will listen closely you will hear above the music the rhythmic motions of the poi balls as the performers manipulate them.

IN REMINISCENT VEIN.

The sixth phase provides an apt finale, its purpose being to help listeners to visualise in the peaceful happiness of our present day the handiwork, as it were, of the departed generations—the beneficent influence of the forces for good operating throughout the preceding phases of the evening's entertainment. Here, again, music and song will be the illustrating mediums, and what more apt than, following the concluding excerpt from Ngata's beautiful poem, the whole company should unite in the singing of "Home, Sweet Home," and the National Anthem.



THE Maori was always given to song. He had song for all occasions, great or trivial. He had war-songs, love-songs, watch-songs, and the various songs had their various styles, as distinctive as our own.

One very noticeable thing about their melodies is their very small compass; some are within one tone; few are more than four tones. The result is a certain monotony to ears accustomed to the wide range of tone in European songs; and in many of their melodies we can hardly detect melody at all.

The fact is, the Maori had no such thing as melody as we know it. He had no tune apart from the words. The words were the important thing, and the words were sung more or less in the natural speech tones, perhaps

exaggerated a little, perhaps little more than a monotone. Their kerekia, or incantations, were all in measured monotone, somewhat like our religious intoning, but more like the quantitative recitative of old Greek poetry.

The songs were so well known that all could join in, and did join in; and every orator would now and again break into apt song during the course of his speech, the listeners all joining in, for all were sure to be familiar with the song begun by him. Mr. Elsdon Best collected from one old man and his wife over four hundred songs which they knew, words and melody; and they were not reckoned a couple who knew much in the way

MAORI SONG AND MUSIC

(By JOHANNES C. ANDERSEN.)

of song. How many of us could sing a quarter as many?

The Maori had few musical instruments. Strange to say, with the exception of the great war-gong, he had no drums, and the drum is a favourite instrument with uncivilised, or little civilised people, helping, as it does, in the appreciation of rhythm; and the Maori had a superb sense of rhythm, far more exact than our own. He had a war-trumpet, and a shell-trumpet, but these were not used as musical instruments; rather as signalling instruments. He had two kinds of flute, and it is from these that we have gleaned what we know of their technique and melody. One, the Koanau, was an instrument somewhat like our flute, except that

it was blown from the end, and had only two to five side-holes. The tones produced differ in interval in all flutes examined, no two agreeing, so that one is forced to conclude that the Maori recognised no definite arbitrary intervals, as we do not in our speech tunes. Every flute was made to play a particular song; if it were wished to play another song on that flute the holes had to be altered, and many flutes are found with the holes so altered. Moreover, when the flute was played the words of the song were played on it; that is, the flute spoke; and on the Maori flute even the European ear is able to catch at least some of the words. This explains why the Jew's harp was a favourite instrument with the

Maori; he was able to speak on it; and two lovers would sit side by side, each with a Jew's harp, softly exchanging confidence on their instruments—actually saying it with music. There are stories which tell how lovers conveyed messages by means of flutes; and when Hinemoa swam to Tutanekei, it was because of what he was saying to her on the flute. So of song-birds, the Maori particularly liked the ones that seemed to be saying something, that is, the ones whose voices approached human speech.

It is well-known how readily the Maori took to our music, and how he excels in it; so that he enjoys two kinds of music: ours in addition to his own. An intermediate form has sprung up, too; European tunes taken by the Maori and altered slightly in melody and in tune, so that they are neither the one nor the other, but are extremely pleasing both to Maori and to European; and it is these tunes that often are regarded as Maori music, and are referred to as Maori music. Songs like Alfred Hill's "Waiata Poi" have used Maori rhythm, but not Maori melody; their restricted melody we cannot enjoy, nor can it be expressed in our musical notation; but their rhythms we can thoroughly appreciate and enjoy. To appreciate the delicacy of their laments and love-songs, many of which are pure poetry, needs as long and minute a training as it does to appreciate the highest classical music.

The instrumental music to be played by the Symons-Hillwood Quartet will be distinctly appropriate. The selections chosen are from the works of Alfred Hill, who has founded some of his most pleasing compositions on Maori folk songs. In the "Moderato-Allegro" the first violin enters immediately with a short, expressive theme which leads up to the Allegro and so on to the second subject, announced by the first violin and violoncello, cantabile. The movement is brought to a close by means of a beautiful ascending passage per violin, answered by the violoncello. "The Tangi" opens with a fine Maori lament played by the first violin, and viola in 6ths. Its limited compass of a third gives a feeling of monotony which is wonderfully expressive of deep sorrow. At the conclusion of most Maori folk songs there is usually a descending chromatic scale sung glissando. Mr. Hill has introduced this "wail of despair" with fine results at the conclusion of the tangi.

The loudest sound ever made by man, such, for instance, as that of some of the huge explosions in France during the war, is probably incapable of travelling much more than 100 miles, and to cover that distance it would take nearly nine minutes. In a single second, wireless waves travel seven and a half times round the earth.

In 1873 Clerk Maxwell showed from mathematical computations based upon observed physical phenomena that radio was possible. In 1886 Hertz carried out radio communication in his laboratory. But it was not until 1896, twenty-three years after Clerk Maxwell that Marconi effected the first experiments in practical radio; it was not until 1901 that he first obtained signals across the Atlantic.

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With Dealer and Customer

Getting Together To Solve Radio Problems

THE majority of loudspeakers on sale in New Zealand are marked with plus and minus signs, to denote correct polarity, and such loudspeakers are subject to damage if wrongly connected to the receiving set. Every dealer should stress this point when selling a loudspeaker of that type, and the buyer should be warned to ascertain how the 'phone jack in his set is wired up, as there are some emergencies from the standard method.

LONG LOUDSPEAKER CORDS.

NEW ZEALAND dealers should not experience any difficulty in selling long loudspeaker cords. Beginners are frequently unaware that these extra-long cords are obtainable, and they only require to have their attention drawn to them for a sale to be effected.

FIRST-AID TO DAMAGED VALVES.

THE glass bulb of a valve of even the best of makes will sometimes work loose from the valve base, through rough handling. Some valve sockets grip the valve prongs too tightly, and this is one of the causes of damage to a valve. When valves are being inserted or being removed from the socket the valve should be held by the base, and not by the glass bulb. Dealers sometimes have valves brought back to them with loose bulbs. The dealer can efficiently repair the valve by drilling a quarter-inch hole in the base, in the middle, between the four prongs. Sealing-wax can then be melted in an old spoon and poured through the hole into the base of the valve. When the wax cools a strong permanent repair is accomplished.

CONNECTING UP BATTERIES.

TURNING out radio valves is a costly accident. In a moment of abstraction a beginner can send two or three pounds' worth of valves up in smoke. The radio trader should not leave his customer until the latter is quite sure, and, furthermore, is able to demonstrate that he knows how to connect up his batteries properly. Only the other day a beginner in the city connected the wrong cords to his batteries, and five healthy valves were thereupon cut off in the prime of life. The dealer should emphasise the risk attendant upon putting the B battery current through a filament of the valves. "Stop and think" should be the slogan for beginners.

CORRECT TYPE OF VALVE.

IN New Zealand the market is well supplied with variety in valves. Beginners are slow to learn the fact that valves are now obtainable in the Dominion for every purpose practicable so that the greatest efficiency may be obtained by using the correct type of valve for the work that is required from it. Dealers who desire to increase their popularity should instruct their salesmen to render every assistance to purchasers when they desire to buy a valve. It is quite a frequent occurrence for a beginner to buy the wrong type of valve for the work required, and he expresses disappointment with the results he obtains. If the salesman had asked the buyer for what purpose he needed the valve the correct type would have been sold to him. The buyer would have obtained better results, and he would remember the assistance he had received in purchasing the valve. Many "power" valves have been sold through one city radio dealer ascertaining from his customers to what purpose the valve

was to be applied. In many instances the buyers needed a new valve for audio-frequency amplification. This was a good opportunity to sell a "power" valve, and thus to increase the enjoyment of the purchaser. An extra "B" battery or two, and a "C" battery were sold with the "power" valves. He states: "Purchasers on revisiting my shop have expressed appreciation of the improvement in tone and volume through my selling them the 'power' valves. They then look to me for other useful tips. This means extra business, and everyone is pleased."

NEW AMERICAN MOVE.

PLANS for co-operative research by the independent manufacturers in the radio industry were made at the first meeting of the new committee on Patents and Engineering of the Radio Protective Association, held at the Palmer House in Chicago during the past month.

This move is to enable independent manufacturers to build sets without conflicting with certain patent rights, which necessitate the payment of substantial royalties.

The committee decided to invite the assistance of the independent engineers and inventors of the industry, whether they are connected with manufacturers who are members of the association or not. A number of offers of new circuits and new radio devices had already been received at the Chicago headquarters of the association, and were referred to members of the committee for further investigation.

The work of the committee promises to be one of the most important factors in the campaign of the Radio Protective Association, according to Oswald F. Schuette, executive secretary of the new association.

"The purpose of our new committee on Patents and Engineering is to make the inventions of the independent laboratories available to all of our members."

The headquarters of the Radio Protective Association are at 181 South La-Salle Street, Chicago.

TEACH THE RETAILER TO SELL.

THE big job ahead of the radio manufacturer is to teach the retailer to sell, according to Lloyd Maxwell, president of Williams and Cunningham, Chicago.

"The public," says Mr. Maxwell, "knows more and demands more than it did a year ago. It will demand still more a year from now."

"Among the things the public is demanding and has a right to demand, is service. If you will also take the trouble to go into enough homes, you'll find thousands of sets out of commission, the owner too discouraged or disgusted to go through the bickerings so often necessary to secure service."

"With the new standardisation policy in force, the dealer situation should be improved. Elimination of the fear of getting caught with obsolete stocks will give the dealer greater confidence in his merchandise and its maker. It will give the manufacturer an opportunity to instill into the dealer's mind the fact that service is as important as selling."

"The standardization movement marks the opening of a new and saner era in the radio business."

TO SELL MORE SETS.

AN American radio trader makes the following statement showing how to increase business:—"The time when our customers are most interested in giving us the names of prospective buyers is right after they have bought sets from us. So we always make it

a point to call up new customers at least two or three times the first month for the ostensible purpose of seeing how their sets are working. Then, when calling them up, we ask them for the names and addresses of prospects and in this way get a lot of names and are often able to make sales to many of them."

Dealers can help their clients improve their knowledge of Radio by recommending

The Radio Record

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EXPLAIN SERVICE WORK.

WHEN a customer pays his good money for repairs or alterations to his set, it is up to the service dealer to let his client have a full detailed statement of what the work comprised. A Californian dealer states:—"Whenever we service a set for a customer we always explain in detail just what we have done. This helps to gain the confidence of the customer and makes him more friendly to us and is, therefore, of real aid in selling more sets."

USE COLOURED CIRCULARS.

NEW ZEALAND traders who are planning the issue of circulars should take a hint from the following statement by an American expert. He says:—"While single colour circulars (printed in black) will suffice and cost less money, it pays in the end to use highly coloured circulars (lithographed), because of universal eye-attraction and buying appeal, and because they compel a reading more quickly than the drab monotone single colour black. At the same time they have an instantaneous appeal through pictorialisation and colour. The child's zest for gaily coloured pictures persists all through life, and the radio dealer might as well cash in on this frailty in human nature, by paying a trifle more for two or three tone colour combinations in his advertising circulars."

ELECTRIFIED RECORDS.

THE inevitable has occurred. A Chicago company is now marketing a compact unit comprising a phonograph motor and turn-table and an electric pick-up unit, all in one. It amplifies gramophone records through a radio set and the radio loudspeaker. Many radio listeners in New Zealand do not possess gramophones, and those who would wish to reproduce radio records through their sets would prefer to buy a neat unit, as described above, to buying a complete gramophone.

LOUDSPEAKER SELLING.

WHENEVER possible, radio dealers should give prospective purchasers of loudspeakers a demonstration of the tonal qualities and sensitivity of their loudspeakers. Many an intending purchaser would buy a higher-priced loudspeaker if he was shown the relative differences between one line and another. Beginners are prone to buy any types of loudspeaker without regard to their efficiency. They soon discover that the quality of a loudspeaker means all the difference between musical enjoyment and otherwise. This, as previously stated, is all in favour of letting customers hear the differences between various loudspeakers.

EUROPE AND U.S.A.

ON his return to New York from a seven weeks' tour of Europe, L. R. Beardslee, treasurer of a big New York radio corporation, reports that in the design of radio receivers, designs for the broadcasting fan, there is little in the foreign market which can compare with the receiving devices being offered for general sale in the United States.

Mr. Beardslee declared that the home construction of radio receivers on the other side of the Atlantic seems to be of an entirely different nature than home construction in the United States. Most of the work of this character, he stated, is being done by folk who are not as much interested in receiving broadcast programmes as they are in making a study of the electrical characteristics of the receivers they make. Some of the more advanced home constructors, he says, are doing

a very fine job, but in most instances they are materially handicapped by reason of the fact that the quality of material it is possible for them to get does not in any way match up with the quality of the parts being sold in America.

"Even in the matter of completed receivers we find that the mechanical design is of somewhat different a nature from our own. There are, as a rule, a great many more dials and switches, and the tubes, which are called valves, usually protrude from the top of a flat case, instead of being completely concealed in the cabinet, as is the case with most of the receivers here. There are, of course, some exceptions to this rule. The workmanship on some of the foreign receivers is nothing short of magnificent."

"Then, too, broadcasting on the other side of the Atlantic is meeting with a few obstacles. An effort is being made to confine the broadcasting to a range somewhat similar to the range of wave-lengths obtaining in this country. Wave-lengths, or frequencies, which are the same, have been assigned to quite a group of stations well within a thousand miles of each other. The wave-length of Liverpool, for instance, is duplicated by four or five more stations on the Continent, and interference with reception from Liverpool is quite noticeable at any great distance from the station itself."

"I do not want," Mr. Beardslee stated, "to be in a position of criticising our European neighbours, and it means that some of the work being done in some of their important laboratories is at least on a par with the most advanced work being done in this country. There is, however, a marked difference between the general run of radio material offered to the European public and the material offered to the public in this country."

S.O.S.

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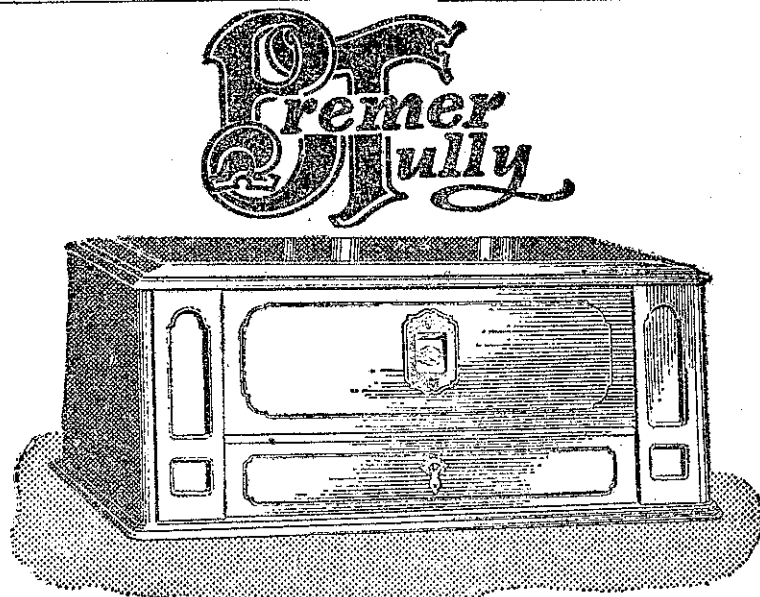


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D. A. Morrison & Co., Wanganui.
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M. J. Dobbing, Papakura.
Turnbull & Jones, Ltd., Auckland.
Horne's Garage, Opoitiki.
Ivan O'Meara, Gisborne.
J. I. Small, Colombo Street, Christchurch (Also Greymouth).

J. Kilkenny, Westport.
Wireless Supplies, 94 Main Street, Palmerston North.
Davies' Electrical Supplies, Hawera.
Radio House, Victoria Street, Hamilton.
Superadio, Ltd., Herald Buildings, Auckland.
James, Ltd., Whangarei.
Barnett's Radio Supplies, Upper Octagon, Dunedin.

Brabant Bros., Stafford Street, Timaru.
W. Wood & Co., Winton.
G. Page & Sons, Nelson.
W. J. Port & Co., Cheltenham.
Giles Bros., Tunkia.
George Court & Sons, Karangahape Road, Auckland.
C. H. Wilson, Ltd., Kaikohe.
G. T. Gillies, Thames Street, Oamaru.
Hutton's Garage, Temuka.

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A. J. HEIGHWAY,
Managing Editor,
"The N.Z. Radio Record,"

P.O. Box 1032,
Dominion Buildings, Mercer Street, Wellington.

WELLINGTON, FRIDAY, FEBRUARY 3.

VOICES ACROSS THE SEA.

The nights of February 6 and 7 promise to make broadcasting history in New Zealand. Then, for the first time on a considerable scale, will a radio pageant be put on the air from 2YA and be re-broadcast by the other stations. Suitably enough, the first big scale pageant will be associated with the Maori race, whose poetic and musical genius, in association with their romantic past, promise an informative and entertaining evening. This enterprise marks the inception, we believe, of a comprehensive policy on the part of the company to explain New Zealand to New Zealanders in the most entertaining and informative fashion possible. That policy continued throughout 1928, as opportunity offers, will consolidate the interest of listeners in the medium of broadcasting.

Apart from the interest that will be taken within the Dominion in the programmes of the forthcoming pageant, those events will make wireless history, more particularly in that Australians will be given the special opportunity of listening at an hour suitable to themselves to a whole programme of special value from the Dominion. Special measures have been taken to inform the Australian Press and the public of the event and the probability is that some, at least, of their stations will, if conditions are favourable, re-broadcast the programme in whole or part. Not only will this be of intense interest to those New Zealanders who are resident in the Commonwealth, but it will certainly interest Australians themselves in the Dominion and our romantic native race. In thus sending the voice of 2YA across the sea in a special programme some reciprocity is being accorded Australia for the entertainment derived from her shores by our listeners over a long period. Further, interest may be excited on the part of many to visit our shores and see for themselves those Maori singers in their own haunts whose voices are to be sent so melodiously forth. The capacity to cover the whole of the Dominion by daylight and bridge the southern Pacific by night was one of the reasons for 2YA's power and we look forward with interest to the outcome of the first staged effort to interest Australia.

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Sporting

NEXT WEEK'S FIX- TURES

GREAT TROTTING RACE

Feb. 11—N.Z. Metropolitan Trotting Club's summer meeting at Ad-dington.

CONSIDERABLE interest will attach to this relay because on this occasion Great Bingen and Native Chief meet in a match over one mile from a flying start. Already all Christchurch is divided into two camps over the merits of these two horses which are probably the two most brilliant pacers ever seen in New Zealand. While Great Bingen has been the greater stake winner of the two, and at the same time the idol of the public, the brilliancy of Native Chief has never been in doubt. Owing, however, to the vagaries of this horse at the barrier his racing career has been somewhat marred. On this occasion, with an even dispatch which a flying start will ensure, there should be a real test between the two. The totalisator will not be opened for the test as the rules of trotting prohibit any race being started with a flying start, and so the event will be included in the programme as an exhibition of pac-

Edison Evening on February 7

A SPECIAL MESSAGE FOR NEW ZEALAND

The outstanding feature of the programme on Saturday, February 11, "Edison Evening" being the 81st anniversary of the birthday of the famous American, will be the broadcasting per medium of the gramophone of a personal message from Mr. Edison.

Sir Fredrick Chapman, President of the English Speaking Union, and the American Consul-General, Mr. W. L. Lowrie, will deliver short addresses. The musical programme will be for the most part American. The Studio Trio will render standard works of modern American composers, and the Melodie Four will render American national and popular songs. The American Colony in Wellington will be well represented, and will take part in a "community sing," presenting items that are familiar to all the English speaking races, although peculiarly American.

A number of the first items to be recorded on an Edison phonograph record by Billy Williams will be performed by Mr. Billy Hart. Some humour from Mark Twain will be given, and the band will play favourite American marches.

TRAVELOGUES AT 3YA

VOICE QUARTET ON TOUR.

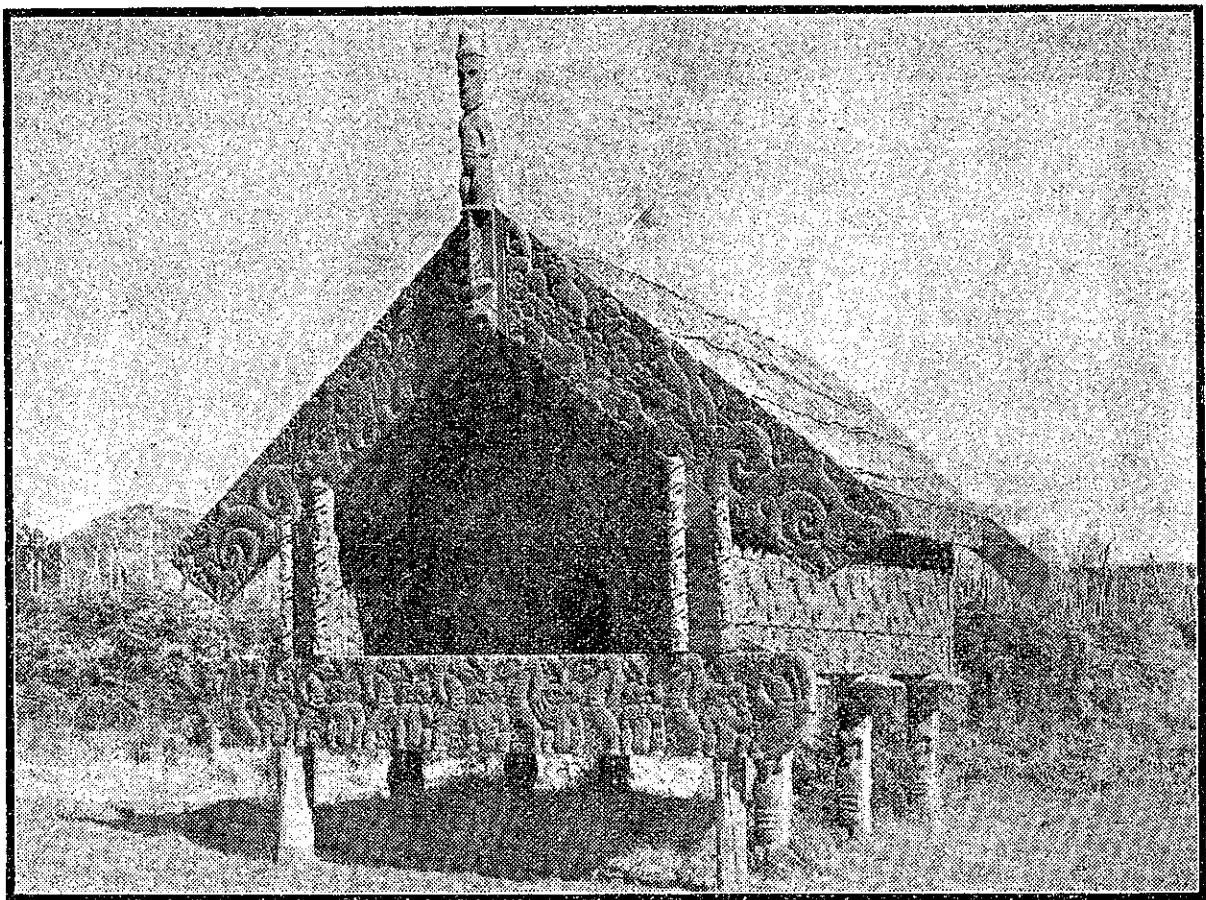
The Dulcet Quartet (of which Mr. A. G. Thompson, B.A., is the leader, and other members are Misses Nellie Lowe, Mary Shaw, A.R.A.M., and Mr. T. G. Rogers) has adopted a type of programme which should prove a great attraction.

Mr. A. G. Thompson is working out a series of tours through various countries—these tours to be of special musical significance with regard to the origin of traditional and other songs. It may be an incident in a certain town or suburb, a battlefield, mountain scenery, or a river, that has inspired the author to a certain composition, and from this point of view travelogues

"FOR THE MAN ON THE LAND"

THURSDAY EVENING LECTURETTES.

In ready and willing co-operation with the Radio Broadcasting Company, the Department of Agriculture has accepted the company's invitation to make the big Wellington station, 2YA, render even more valuable service to the man on the land. Although the broadcasting of market reports and the daily weather forecast is recognised by the farming community as a service of great value. Commencing on February 16, this service will be supplemented by a series of weekly lecturettes to be broadcast by the experts of the Agricultural Department. The course,



Beautifully carved Maori storehouse, showing great native craftsmanship. Photo: Publicity Department.

ing, with £250 to the winner and £50 to the loser. Both horses are reported to be training on well and it is safe that there will be a tremendous attendance of the public.

The last occasion that a match took place in New Zealand trotting was when Emmeline met the imported American mare Lovelock at New Brighton many years ago. Previously the historic match between Ribbonwood (N.Z.) and Fritz (Australia) created tremendous interest and gave the sport of trotting one of the biggest fillips it had received up to that time. This match resulted in a win for Ribbonwood who set a New Zealand mile record which stood for many years. The winner afterwards went to the stud in Australia where he was as great a success as he had previously been on the race track.

Both the contestants in the forthcoming match are New Zealand bred, though both sires were imported from America, and there is a strong American strain in their respective dams. Great Bingen is an aged horse by Nelson Bingen—Bertha Bell, and Native Chief is a five-year-old gelding by Logan Pointer—Regina de Oro.

Those who are unable to attend will be able to hear an account of the race by the Broadcasting Company's sports announcer, Mr. Allardyce.

are prepared on London, Scotland, Ireland, England, and Wales.

Naturally, London is treated from the historic point of view, with a leaning to literature and its past celebrities, and the old town places they visited—Lincoln's Inn and its quiet garden, St. Paul's Cathedral, Fleet Street, Vauxhall Gardens, the street sellers, and May Day, all play their part in the city visit.

In the country tours, however, the quartet will travel far afield, and will illustrate the travel by songs suited to the position in the country visited.

These tours will occur fortnightly, and the final of the visits will be that to God's Own Country—our glorious New Zealand.

which is being arranged through Mr. Hooper, editor of "The New Zealand Journal of Agriculture," will cover every phase of agricultural and pastoral activity. Instructional talks will be given by the representatives of the live stock division, the dairy division, the horticultural division, and the chemistry section. This is sufficient to indicate the wide range of subjects which will be dealt with, and as each talk will be specially prepared with a view to affording really useful advice to the man interested in the particular topic, the net result should prove highly beneficial to the primary producers as a whole. To suit the convenience or country listeners-in, the lecturettes will be broadcast at 7.40 o'clock every Thursday evening.

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Some Features of Next Week's Programmes

1YA NOTES

At 1YA on Monday the programme will of course be the rebroadcast of the Maori Radio Pageant at 2YA. This is usually the Auckland station's silent day, but for this exceptional occasion 1YA will be "on the air."

The Maori Radio Pageant, to be broadcast next week, seems to deepen the interest in the series of lectures now being given by Mr. A. B. Chappell, M.A., on "Old New Zealand." The seconds of the series will be given on Tuesday. It is entitled "European Discoveries."

A fine miscellaneous programme comprises the first half of the evening's entertainment on Tuesday. It will be supplied by the Madame Ainsley Quartet, assisted by Mr. Hal McLennan (flute soloist with the Municipal Band) and the Bosworth-Hemus-Towsey Trio. There will also be a vocal interlude from the Majestic Theatre.

The Auckland Artillery Band, assisted by the Hazell-Sutherland Duo will supply the programme at 1YA on Wednesday. The band has arranged a particularly fine and varied programme of selections, and Miss Hazell and Mr. Sutherland will be heard in some of their best solos and duets.

A well assorted programme will be presented at 1YA on Thursday. It is the night when the Snappy Three take over the microphone for a period and test it with all manner of bright ditties; the Premiere Quartet will be there with an assortment of favourite songs; Mr. T. Harris, the elocutionist, has also been engaged, and the Bosworth-Hemus-Towsey Trio will be supplying some of their exquisite music.

The Waiata Quartet—Madame Mary Towsey, Miss Lola Solomon, Mr. J. Simpson, and Mr. Frank Sutherland—will present a varied programme of vocal items on Friday.

Mr. J. F. Montague, elocutionist, whose voice at 1YA is always looked forward to on Friday evenings, has three splendid contributions for next week. He will give a Shakespearian recitation, a group of New Zealand poems and some "Meanderings."

"The Edison Evening," which is to be the attraction at 2YA on Saturday will also be the feature at 1YA.

After the church service on Sunday evening a studio concert provided by the St. Andrew's Quartet and the Bosworth-Hemus-Towsey Trio will be broadcast.

"AIDA" AT 1YA

Excerpts from Verdi's famous opera "Aida" will be given at 1YA on Tuesday under the direction of Madame Irene Ainsley.

The cast of characters will be:—
Aida Miss Nancy Hanna.
Amneris Madame Irene Ainsley.
Radames Mr. Birrell O'Malley.
Amonasro Mr. Trevor Lewis.

The scene of the story is laid in Ancient Egypt, and concerns Princess Aida, daughter of the Ethiopian King Amonasro. She has been taken prisoner by the Egyptians and given by Pharaoh as a slave girl to his daughter, Princess Amneris. Amneris has cast her eyes on Radames, a handsome young officer, but Radames is in love with Aida. The advent of an Ethiopian army, its defeat by Radames, the intrigue by Amneris against her rival, Aida, the punishment of Radames as a traitor and the death of Radames and Aida in their living tomb, form the basis of the plot.

In the scenes to be given from 1YA Radames will sing his adoration of Aida. When Radames sets out to give battle to the advancing Ethiopians, Aida joined in the chorus calling on Radames to return victoriously, but when left alone, she realises that her father leads the oncoming army which is intended to rescue her and, with torn feelings, she sings "Ritorna Vincitor" ("Return Victorious"). The duet "Tremate in coi ti jessi" ("Tremble! Thou art discovered") is sung by

HAZELL-SUTHERLAND DUO

NEW COMBINATION FOR 1YA

THE latest duo engaged by 1YA, consisting of Miss Phyllis Hazell and Mr. Frank Sutherland, will appear for the first time on Wednesday, February 1, when their items will be interspersed in the programme to be given at the Municipal Band concert in Albert Park. The Radio Broadcasting Company is certainly fortunate in obtaining the services of Miss Hazell, who has come to reside in Auckland, and who has frequently performed from 2FC, Sydney, where letters were often received from New Zealand listeners requesting the repetition of many of her items.

Miss Phyllis Hazell is a prominent Sydney contralto. She has made very successful appearances in Sydney and Melbourne on the concert platform,

and in 1924 was engaged by the Auckland Royal Male Choir and other New Zealand musical societies to tour New Zealand and sing at the various subscription concerts. So successful was this tour that extra concerts were arranged in the various centres, and the patronage went to show that Miss Hazell possesses a voice of exceptional merit.

Miss Hazell's performance at the Royal Auckland Choir concert was the subject of the following comment which appeared in the "New Zealand Herald":

"The society has made a happy choice in securing as an additional attraction for their concerts the services of Miss Phyllis Hazell, the young Australian contralto. Not only is the visitor the possessor of a fine natural voice, which has evidently been well trained, but she has that rare gift, imagination, which enables her to visualise the possibilities of everything she sings. Her intonation is exceptional, while her cultured diction is an object lesson to vocal students. Last night Miss Hazell made no less than four programme appearances, after the last two of which she secured double recalls."



Mr. Frank Sutherland, the Auckland bass-baritone, needs no introduction to listeners-in. Their solo numbers will consist of solo items and duets selected to suit the tastes of all. The Hazell-Sutherland Duo should prove of outstanding merit, and their regular appearance should be very acceptable to listeners.

Amneris and Aida when Amneris has tricked Aida into confessing her love for Radames. With Radames on trial as a traitor, he and Amneris sing the duet "Ga i Sacerdot." The final duet is sung by Aida and Radames, "Farewell to Earth," when, happy in each other's arms in the darkness of the tomb, their voices blend in an ethereal song of love.

2YA NOTES

There is plenty of variety in the programme arranged by the Clarion Quartet for Thursday evening, February 9. The quartets to be sung include an arrangement of Tate's popular song, "Somewhere a Voice is Calling," and there is that favourite amongst male quartets, "Spin, Spin," which tells of the maiden who spins all day, but yet sighs for a lover who does not come at all. On the lighter side is "Old Mother Hubbard," with canine effects, and then an arrangement of the popular fox-trot, "Of, if I Only Had You." Mr. James Cooke, bass, will sing "Line-house," telling of the sights to be seen in London's underworld round Limehouse. "My Pretty Jane" will be given by Mr. Frank Skinner. This song was a favourite of the years gone by, but has not lost its beauty with the passage of time. Mr. Will Hancock is singing "I Heard You Go By," and there will be a fine, cheery song by Mr. Ray Kemp, "When Good Fellows Get Together." The training of the Clarion Quartet is in the hands of Mr. Len Barnes.

The musical portion of the evening's programme will be provided by the

Artillery Band, under Captain T. Herd, while Billy Hart will also entertain with songs at the piano.

"At Evening Hour" was presented to Mr. Barnes by the composer, Mr. J. Brookes, a Wellington musician, for the use of the Orpheus Quartet. It is a delightful number, and should prove of interest to the public. Mr. Brookes has written several other works, and it is to be hoped they will be heard over the air.

"The Queen of France" is a beautiful gavotte—a rhythm that is always appealing, and "Cribiribin" is a vocal waltz, very bright and melodious. The duets are "A Summer Night"—to be sung by Miss Mackie and Mr. Barnes, and "Maying," to be sung by Mrs. Harris and Mr. Coe. Mrs. Harris sings "The Flower Song" from Faust, a number for which she was highly praised by the Press in a recent production of the opera by the Royal Wellington Choral Union. The other members are singing solos which are sure to please.

Following the concert programme the Maori Radio Pageant commemorative of the signing of the Treaty of Waitangi, will be repeated chiefly for the benefit of listeners overseas. The broadcast of this unique programme is timed to commence at 11 p.m.

On Sunday, February 12, the Ariel Singers will broadcast another excellent programme from 2YA. It includes the two biggest airs from Joseph Haydn's oratorio "The Creation," whilst that beautiful example of part writing, "Lead Kindly Light," by Sir Arthur Sullivan, should make a direct appeal.

The instrumental music will be provided by the Symons-Ellwood String Quartet, and, as a special contribution, Mr. Frank Crowther, at the piano, will play his own arrangement of Nevin's "Rosary." A brilliant interpretation of an exquisite composition is assured.

3YA NOTES

A LONDON PROGRAMME

TRAVELOGUE AT 3YA.

The first of the travelogues by the Dulcet Quartet, of which Mr. A. G. Thompson, B.A., is the leader, will be given at 3YA on Wednesday. London will be the scene of the first musical meanderings. The historic places in the great Metropolis, the heart of everything that is British, with their old memories and old associations entwined around some of the most popular old songs of the nation, will be visited. By means of a running dialogue listeners will be taken to these places whose names are perpetuated, even if not hallowed, by song.

For instance, when the famous legal quarter is visited and described, the raconteur is inspired to sing "The Nightingale of Lincoln's Inn." Then when Vauxhall is reached, "Vauxhall Way," will be sung, telling of "When Lady Betty Walks Abroad" in Vauxhall in the Morning. Other songs which have associations, both grave and gay, will follow as the quartet visits the many spots of interest.

The personnel of the Dulcet Quartet is: Miss Nellie Lowe, Miss Mary Shaw, A.R.C.M., Mr. T. G. Rogers, and Mr. A. G. Thompson. All the members are from the Old Land. Mr. Thompson himself being particularly well acquainted with London. The London travelogue will conclude with the Coster song, immortalised by Chevalier, "My Old Dutch." This will be sung by Mr. Thompson.

"MERRIE ENGLAND"

At 3YA on Thursday there will be a special studio presentation of Edward German's delightful comic opera, "Merrie England," by the Madame Gower-Burns Grand Opera Quartet. The rendering of the items from this work will occupy the whole of the first half of the evening's programme.

In the second half of the programme a miscellaneous concert will be given by the same artists, augmented by pianoforte solos by Miss Bessie Pollard, humorous sketches by Miss Lucy Cowan and Mr. J. F. Cannell, and instrumental items by the Broadcasting Trio.

PRINCIPAL CHARACTERS.

Queen Elizabeth ... Miss Jessie King
The Earl of Essex ... Mr. Bernard Rennell
Sir Walter Raleigh ... Mr. Harold Prescott
Miss Bessie Throckmorton
Jill-All-Along ... Miss Jessie King
The May Queen ... Madame Gower-Burns

The story of "Merrie England" is laid in the glorious days of Queen

Elizabeth, who, together with those famous personages of her reign, the Earl of Essex and Sir Walter Raleigh, appear in the opera, the scene of which is laid in the heart of mediaeval England, by the Thames, near Windsor.

Act I opens to the strains of the May Day revels. The Queen of the May and her supporters are chosen, and Raleigh, disguised as Robin Hood, appears upon the scene. His lady, love, Bessie Throckmorton, Maid-of-Honour to the Queen, comes forward to meet him. The witch, Jill-All-Along, finds an acrostic which Raleigh has given to Bessie, and which she has lost. The Earl of Essex, to whom Jill brings the lost property, sees that it is addressed to "Bessie," and believes that Queen Bess is the object of Raleigh's attentions. He shows the acrostic to the Queen, who is not displeased, until she hears from Raleigh's lips that the verses were intended for Bessie Throckmorton, whom he loves. In anger the Queen banishes Raleigh, orders Bessie into imprisonment, and has Jill-All-Along thrust within the castle walls to be burned for a witch.

In Act II the Queen goes hunting in Windsor Forest, where the forest folk give a performance for her entertainment. Essex causes the apparition of Herne the Hunter to appear before the Queen, tradition having it that the ghost is only seen when the Sovereign meditates a wrong. The Queen relents, and all are pardoned. To the strains of Raleigh's and Bessie's wedding music this delightful opera draws to a close.

A GOOD CONCERT.

A programme of the usual high standard set by the Melodious Quartet will be broadcast on Friday at 3YA. The concerted and solo items comprise a fine collection of pretty melodies, notably those in which the ladies' voices, Misses Hamerton and Renaut, participate. Messrs. Sumner and Williams have selected songs of a more virile nature for their particular voices.

Among Mr. Sumner's items is "Red Devon by the Sea," while Mr. Williams's baritone voice will be heard in such items as Elgar's "War Song," "Devonshire Cream and Cider," and "The Desert."

3YA listeners will remember the

glorious renderings which Mr. T. D. Williams gave of "The Desert" a few months ago. This song by Emanuel, now very rarely heard owing to being so difficult to do justice to, is descriptive of being lost in the desert, with vultures flying overhead waiting for their prey; but just when the traveller is exhausted and giving up all hope, he hears the faint tinkle of caravan bells. Mr. Williams and 3YA have received many requests for this item to be repeated.

Mr. H. Instone, whose entertaining abilities are now well known, will give some more samples of his own humour at 3YA on Friday. This item will refer to house painting.

For an after-church studio concert on Sunday evening, following the relay of the service in St. Luke's Church of England, a capital programme has been arranged. Instrumental music will be supplied by the Trio, and vocalists will be the ever-popular Mr. D. W. Stallard and Mr. P. Angus.

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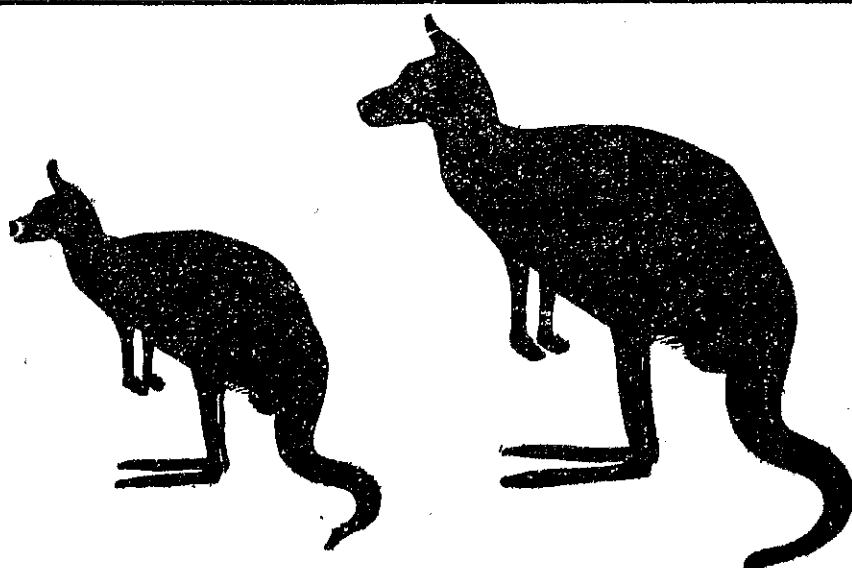
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Full Programmes for Next

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NOTES AND COMMENTS

(By "Switch.")

There is now a new studio orchestra at 2FC, Sydney, which is playing on two nights each week from 2FC. It is hoped by the management that the studio orchestra will mainly play request numbers, and to this end listeners are invited to communicate with the studio, stating what types of music they would like the orchestra to render. Believing that the time has arrived when the star artists from 2FC should be accompanied by a full orchestra, the management has now asked Raymond Ellis, the British National Opera baritone, and Hubert Carter, the eminent New Zealand tenor, to arrange a series of programmes in which they are to be accompanied by the orchestra. This series is to be continued at later dates when other 2FC artists will arrange programmes.

It is reported from Parkes, N.S.W., that a young man was listening with his receiving set to a Sydney broadcasting station when a centipede seven inches long bit him on the leg. The incident is recorded in the "Lithgow Mercury," which heads the paragraph "Dangers of Listening-in." The "Mercury" does not explain precisely the nature of the danger incurred by the unfortunate listener (who, by the way, is quite well again), but it may be assumed that the risk lies in the radio enthusiast becoming so absorbed in the programme that he does not notice the dangers that surround him. Fortunately in this particular case it was only one centipede, and not a herd of wild elephants, that advanced upon the wire-less fiend.



L. KAHUKURA.
Denton, Photo.

The huge clock in the tower of the British Houses of Parliament in London, known as "Big Ben," is broadcast from London and all stations at 11 a.m., 1 p.m., and 7 p.m., and from London and all stations at 9 p.m. whenever possible. When it is not possible to broadcast Ben the Big at 9 p.m., the announcers give the correct time in a dulcet voice and correct "spoken English," as closely to 9 p.m. as possible. On Sundays Big Ben booms broadcastwise at 8.30 p.m., if the programme begins then, and at 9 p.m. if possible.

For soldering connections in a radio set it is advisable to use resin instead of an acid flux. An acid flux is easier to work with, and for this reason is more commonly used, to the detriment of any connection where fine wires are employed. The acid, besides corroding the wire, has a bad habit of "creeping" which often provides a high resistance leakage path between connections. This is particularly noticeable when soldering connections to jacks. An excellent flux, having resin for its base, may easily be made by the experimenter. It is non-corrosive, does not "creep," and leaves a neat-looking joint. This flux is made by dissolving resin in a small quantity of denatured alcohol. If the resin is powdered it will be dissolved much more quickly. This flux should be kept in a corked bottle and when used can be applied with a toothpick.

"The term 'good' music is often abused," says Mr. Chapple, a young Sydney pianist who is rapidly coming to the fore. "Much agitated argument has centred on the desirability of excluding jazz from broadcasting programmes, on the ground that it is a low order of harmony. Yet, Gershwin's 'Rhapsody in Blue' is just as much a classic of its kind as the 'Unfinished Symphony.' The trouble of it is," he says, "so many people emphasise their preference for the masters because it is considered the correct thing to do. They have probably listened to compositions which bored them unutterably, but because of their alleged classic origin, so far from voicing a protest, they express hy-

Sunday, February 5th

1YA AUCKLAND (333 METRES)—SUNDAY, FEBRUARY 5.

- 3 p.m.: Afternoon session—Selected Studio items.
4.0: Literary selection—Mr. Culford Bell.
4.30: Close down.
6.0: Children's hour—Uncle Leo; song service conducted by Uncle Leo, assisted by cousins from the Beresford Street Sunday School Choir.
6.55: Relay of church service from St. Matthew's Church. Preacher, Rev. Canon Grant Cowan; organist, Mr. W. Philpott.
Special concert from Studio.
8.30: Vocal quartet—St. Andrew's Quartet, "Rock of Ages."
8.34: Bass solo—Mr. Arthur Colledge, "Light in Darkness" (Cowan).
8.38: Vocal duet—Mrs. Richards and Miss Phyllis Gribben, "O, Lovely Peace" (Handel).
8.42: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Scherzo and Finale, Trio, Op. 21" (Dvorak).
8.52: Tenor solo—Mr. Robert Peter, "The Soft Southern Breeze" (Barnby).
8.56: Vocal quartet—St. Andrew's Quartet, "Call to Remembrance."
9.1: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Peer Gynt Suite" (Greig).
9.12: Contralto solo—Miss Phyllis Gribben, "O, Divine Redeemer" (Gounod).
9.17: Vocal quartet—St. Andrew's Quartet, "At Even, ere the Sun was Set" (Turner).
9.21: A thought.
9.23: God Save the King.

2YA WELLINGTON (420 METRES)—SUNDAY, FEBRUARY 5.

- 6 p.m.: Children's session, conducted by Uncle Ernest.
6.55: Relay of evening service from St. Gerard's Redemptorist Church, Hawker Street, Wellington. Order of service:—Organ solo, "Andante from Fourth Organ Sonata" (Mendelssohn); Rosary with choral responses; Antiphone, "Ave Regina" (Witska); sermon, Motets, "Ave Maria Stella" (Carso), "Sweet Sacrament Divine" (Rev. F. Stanfield), "Cast Thy Burden" (Mendelssohn); organ solo, "Parane," 16th century (Bryd). Benediction. Motets, "O Salutaris Hostia" (Elgar), "O Sacrum Convivium" (Farrant), "Tantum Ergo" (Verdusson), "Divine Praises" (Oakes), "Adoremus and Laudate Dominum" (Allegri); chorus, "Sanctus" (Weber); organ solo, "Finale Grand March from Aida" (Verdi). Conductor, Mr. Frank J. Oakes; organist, Mr. Henry Mount.
8.30 (approx.): Studio concert:—
Vocal quartet—The William Renshaw Quartet, "Friend of the Friendless" (Wheeler).
Instrumental quartet—Symons-Ellwood-String Quartet, "Allegro and Dumka from Quintet" (Dvorak), (with assistance of Mr. Gordon Short).
Bass solo—Mr. Wilbur Davies, "The King's Minstrel" (Pinsuti).
Soprano solo—Mrs. Amy Dunn, "Thank God for a Garden" (Dei Riego).
Instrumental quartet—Symons-Ellwood-String Quartet, "Largo from Quartet in E Major" (Haydn).
Tenor solos—Mr. William Renshaw, (a) "I Know of Two Bright Eyes" (Clutsam); (b) "Jane" (Barker).
Contralto solos—Miss Nora Greene, (a) "To Music" (Schubert); (b) "The Blind Ploughman" (Clarke).
Vocal duet—Mr. William Renshaw and Mr. Wilbur Davies, "Under the Desert Star" (Temple).
Instrumental quartet—Symons-Ellwood-String Quartet, "Serenade" (Widor).
Vocal quartet—The William Renshaw Quartet, "When Evening's Twilight" (Hatton).

3YA CHRISTCHURCH (306 METRES)—SUNDAY, FEBRUARY 5.

- 5.45 p.m.: Children's song service from 3YA Studio by Uncle Sam, assisted by New Brighton Methodist Sunday School.
7.0: Relay of evening service from Trinity Congregational Church. Preacher, Rev. D. Gardner Miller.
The following after-service concert will be given from 3YA Studio by Derry's Military Band, under the conductorship of Mr. E. C. Derry.
8.15: Grand Coronation Waltz—The Band, "La Prophete" (Meyerbeer).
8.20: Morceau—The Band, "Salut d'Amour" (Elgar).
8.25: Baritone solo—Mr. C. L. Richards, "The Lord Is My Light" (Alltisen).
8.29: Grand overture—The Band, "1812" (Tchaikowsky).
8.45: Piccolo solo—Bandsman Hutton, "Through the Air" (August).
8.50: Baritone solo—Mr. C. L. Richards, "Droop Not, Young Lover" (Handel).
8.54: Overture—The Band, "William Tell" (Rossini).
9.8: Characteristic intermezzo—The Band, "In a Monastery Garden" (Ketelby).
God Save the King.

4YA DUNEDIN (463 METRES)—SUNDAY, FEBRUARY 5.

- 5.45 p.m.: Children's song service, conducted by Big Brother Bill.
7.0: Relay of evening service from the St. Andrew's Street Church of Christ. Preacher, Pastor W. D. More; choirmaster, Mr. W. Hickey; organist, Miss E. Stokes.

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WELLINGTON.

8.10: Studio concert.
9.10: Close down.

Monday, February 6th

1YA AUCKLAND (333 METRES)—MONDAY, FEBRUARY 6.

8 p.m. to 11 p.m.: Circumstances permitting, Station 1YA will rebroadcast the special Maori Pageant from 2YA, Wellington.

2YA WELLINGTON (420 METRES)—MONDAY, FEBRUARY 6.

- 3 p.m.: Afternoon session—Selected Studio items.
5.0: Close down.
6.0: Children's hour.
7.0: News session, market reports, and sports results.
8.0: Concert session.

Maori Radio Pageant

SPECIAL PROGRAMME IN COMMEMORATION OF THE SIGNING OF THE TREATY OF WAITANGI ON FEBRUARY 6, 1840.

History of the Maoris' Broadcast in Speech and Song.

- Chimes of the Wellington General Post Office clock.
8.1: Overture—Symons-Ellwood String Quartet, "First Movement from Maori Quartet" (Alfred Hill).
8.6: Address—Hamiora Hakopa, greetings and introductory remarks.
Oration—Henare Poananga, LL.B., prologue from "Scenes from the Past" (Sir Apirana Ngata).
8.10: String quartet—Symons-Ellwood Quartet, "Tangi" from "B Flat, Maori Quartet" (Hill).
First Phase.
8.16: Oration—Henare Poananga, LL.B., "The Coming of the Maori" (Ngata).
8.24: Chant—"Thanksgiving Incantation of High Priest" (Ope Whanare).
8.25: Haka—Ropu Tamariki (Maori young people of Wanganui), "Thanksgiving Haka."

Second Phase.

- 8.27: Address—Hamiora Hakopa, "Maoris at Home in the Early Days." Oration—Henare Poananga, LL.B., "The Marae and Hui" from "Scenes from the Past" (Sir Apirana Ngata).
8.38: Poi—Ropu Wahine Tane (girls and boys), "Ancient Poi."
8.40: Haka—Ropu Tamariki, "Tau Ka Tau."
8.41: Koauau solo—Ope Whanare, selected.
(Note.—The koauau (flute) is the original and only Maori musical instrument, and was played by Tutaneke for Hinemoa.)
8.44: Song—Ope Whanare and party, "E Pa Te Hau."
8.48: Haka—Ropu Wahine Tane, "Haka Poi."
8.49: String quartet—Symons-Ellwood Quartet, "Maori Lament" (Alfred Hill).
8.54: Haka—Ropu Tamariki, "Haka Whakapapa."

Third Phase.

- 8.55: Address—Hamiora Hakopa, "The Dawn of the New Day"; "Coming of the Missionary."
8.59: String quartet—Symons-Ellwood Quartet, "Waiata Maori" (Alfred Hill).
9.5: Speech—Sir Maui Pomare, "The Treaty of Waitangi."

Fourth Phase.

- 9.17: String quartet—Symons-Ellwood Quartet, "Ka Mate, Ka Mate" (Te Rangihikiroa).
9.23: Chorus—Ropu Wahine Tane, "Ope Tuatahi."
9.25: Speech—Rt. Hon. J. G. Coates, Prime Minister of New Zealand, "The Maori's Part in the Great War."
9.37: Memorial hymn with string accompaniment—Mangu Tahana, with Ropu Wahine Tamariki, "Piko Nei Te Matenga" (When our heads are bowed with woe).

Fifth Phase.

- 9.40: Address—Hamiora Hakopa, "The Maori in Song and Play To-day."
9.43: Solo and chorus, with string accompaniment—Raina Kahukura, "Hoki Hoki Tani Mai."
9.47: Song, with string accompaniment—K. Takarangi, "Home, Little Maori, Home" (Hill).
9.50: Chorus—Ropu Wahine Tamariki, "Po-ata Rau."
9.52: Chorus—Ropu Wahine Tamariki, "Haere Haere ra e Hine" (Hill).
9.55: Solo—K. Takarangi, "Waiata Poi."
9.58: Chorus with string accompaniment—Ropu Wahine Tamariki, "E Pari Ra."
10.0: Solo and chorus, Mei Perepe, "Hoea ra pe waka."
10.4: Oration—Henare Poananga, LL.B., "Maidens Welcome" (from "Scenes from the Past"), (Ngata).
10.5: Chorus and short double poi—Ropu Wahine, "Ta Hine Taru Kino."
10.9: Male chorus—Tona Potae and Ropu Tamariki, "Karoo Karoo."
10.12: Solo and chorus—Ka Winiata and Ropu Wahine Tamariki, "Pekarekare."
10.12: Solo and chorus—Ka Winiata and Ropu Wahine Tamariki, "Pekarekare."
10.18: Solo with string accompaniment—Ka Winiata, "Hine e Hine."
10.21: Chorus—Ropu Wahine Tamariki, "Te Taniwha."

Sixth Phase.

- 10.25: Address—Hamiora Hakopa, "In Reminiscent Vein."
10.27: Solo, with string accompaniment—Ka Winiata, "Dream Boat."
10.30: Oration—Henare Poananga, LL.B., "The Warriors' Welcome" from "Scenes from the Past" (Ngata).
10.31: Haka—Ropu Wahine Tamariki, "Ka Mate, Ka Mate."
10.32: Solo with string accompaniment—Mangu Tahana and Ropu Wahine Tamariki, "Home, Sweet Home."
10.35: National Anthem.

3YA CHRISTCHURCH (306 METRES)—MONDAY, FEBRUARY 6.

- 3 p.m.: Afternoon session—Selected Studio items.
6.0: Children's hour—Uncle Jack and Aunt Edna. Bedtime stories and birthday greetings.
7.15: News and reports.
7.55: Circumstances permitting, a rebroadcast will be conducted of 2YA, Wellington, from which station a programme of outstanding merit is being broadcast in commemoration of the signing of the Treaty of Waitangi.
(See detailed programme for 2YA, Wellington, February 6, 1928.)

4YA DUNEDIN (463 METRES)—MONDAY, FEBRUARY 6.

8 p.m. to 11 p.m.: Circumstances permitting, 4YA will rebroadcast the special Maori Pageant from 2YA, Wellington.

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Week - All Stations - to Feb. 12

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Tuesday, February 7th

1YA AUCKLAND (333 METRES)—TUESDAY, FEBRUARY 7.

- 3 p.m.: Afternoon session—Selected Studio items.
4.0: Literary selection, by Mr. Culford Bell.
4.30: Close down.
6.0: Children's hour—Uncle Leo. Bedtime stories, songs, and birthday greetings.
7.15: News and reports.
8.0: Chimes. Relay of orchestral overture from Majestic Theatre Orchestra, under the direction of Mr. J. Whiteford-Waugh.
8.11: Baritone solo—Mr. Trevor Lewis, "Where My Caravan Has Rested" (Lohr).
8.16: Flute solo—Mr. Hal McLennan, "Valse Caprice" (Howe).
8.20: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Op. 42 in F—First and Second Movements" (Gade).
8.30: Contralto solo—Madame Irene Ainsley, "Love Smiles but to Deceive" from "Bohemian Girl" (Balfe).
8.34: Relay of orchestral selections from Majestic Theatre.
8.39: Baritone solo—Mr. T. Lewis, "Maire, My Girl" (Aitken).
8.43: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Rosaline" Nocturne (Rubner).
8.50: Relay of vocal interlude from Majestic Theatre.
9.0: Weather forecast.
9.1: Second of a series of talks on "Old New Zealand," by Mr. A. B. Chappeil, M.A., "European Discoveries."
9.17: Violin solo—Miss Ina Bosworth, "Minuet" (Paderewski).
9.21: Soprano solo—Miss Nancy Hanna, "Vale" (Kennedy-Russell).
9.25: Flute solos—Mr. Hal McLennan, (a) "Dainty Dance" (Lemmone); (b) "A Mountain Idyll" (Lemmone).
9.33: Contralto solo—Madame Irene Ainsley, "My Prayer" (Boosey).
9.37: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Opus 42 in F—Third and Fourth Movements" (Gade).
9.46: Scene from "Aida" (Verdi), produced under the direction of Madame Irene Ainsley.
Cast: Aida, Miss Nancy Hanna; Amneris, Madame Irene Ainsley; Radames, Birrell O'Malley; Amonasro, Trevor Lewis.

Act I.
Aria—Radames, "Celeste Aida." Radames, who has hopes of being made general of the army, pictures himself returning a conqueror, and laying the fruits of his victory at the feet of his beloved one. He sings her praises and longs to take her back to her native land, and there place a diadem on her brow.

9.51: Aria—Aida, "Ritorna Vincitor." Aida is torn between her feelings for her lover, who leads the Egyptians, and for her father, who commands the Ethiopians. She had joined in the chorus calling to Radames to return victorious, but now, left alone, she repeats the last words of the people, "Return victorious," and, with breaking heart, appeals to Heaven for pity.

Act II.
9.56: Duet—Amneris and Aida, "Trena." Aida, on her knees, begs her mistress to take pity on her. She reminds the all-powerful daughter of Pharaoh that for her, the slave, there is naught to hope for but the love she bears for Radames. Amneris bids her tremble. She threatens vengeance if Aida dares to be her rival.

Act IV.
10.0: Duet—Amneris and Radames, "Gia I Sacerdoti." Amneris, having brought Radames to his present fate through her terrible jealousy, makes a last effort to induce the soldier to give up Aida. Though the priests are waiting for the trial, she promises to save him. Radames refuses. He declares that he was no traitor to his country.

10.4: Duet—Radames and Aida, "O Terra, Addio." Happy in each other's arms, the lovers say farewell to life. Their voices come from the darkness of the tomb blended in an ethereal song of love. This mingles with the chant of the priestesses invoking Ptaha.

10.8: A thought.
10.10: God Save the King.
11 p.m. to 1 a.m.: Circumstances permitting, Station 1YA will rebroadcast the special Maori Pageant from 2YA, Wellington.

2YA WELLINGTON (420 METRES)—TUESDAY, FEBRUARY 7.

- 3 p.m.: Chimes of the General Post Office clock, Wellington.
3.1: Selected gramophone items.
4.0: Lecturette—Dr. L. A. Line, "First Aid."
4.15: Selected gramophone items.
5.0: Close down.
6.0: Children's hour.
7.0: News session, market reports, and sports results.
8.0: Chimes of the General Post Office clock, Wellington.
8.1: Overture—"Praeludium."
8.5: Vocal quartet—The Orpheus Quartet, "The Queen of France" (Schartau).
8.9: Humorous song—Mr. Doug. Stark, "The Rich Man Drives By" (Lee).
8.15: Soprano solo—Mrs. Alice Harris, "Flower Song" from "Faust" (Gounod).
8.18: Instrumental trio—Symons-Ellwood-Short Trio, "Andante from C Minor Trio" (Mendelssohn).
8.28: Vocal duet—Miss Lily Mackie and Mr. Len. Barnes, "A Summer's Night" (Thomas).
8.32: Cello solo—Mr. Geo. Ellwood, "Ave Maria" (Schubert).
8.36: Tenor solo—Mr. Arthur Coe, "Tell Me, Charming Creature" (Wilson).
8.40: Humorous sketch—Messrs. Len. Barnes and Doug. Stark, "Five Minutes' Sketch."
8.45: Vocal quartet—The Orpheus Quartet, "At Evening Hour" (Brookes).
8.49: Hawaiian guitars—Berthold and Bent, (a) "Hilo March"; (b) "Kalima Waltz" (M.S.).
8.57: Weather forecast.
8.58: Lecturette—Mr. Stanley W. Fearn, A.R.I.B.A., "Architecture."
9.10: Organ recital—Mr. H. Temple White, (a) "Prelude and Fugue in E Minor" (Bach); (b) "At Evening" (Kinder); (c) "Pastorale and Allegro" (Plumpton).
9.25: Contralto solo—Miss Lily Mackie, "Lullaby" (Chisholm).
9.28: Instrumental trio—Symons-Ellwood-Short Trio, "Scherzo and Finale—C Minor Trio" (Mendelssohn).
9.38: Vocal duet—Mrs. Alice Harris and Mr. Arthur Coe, "Maying" (Smith).
9.43: Cello solo—Mr. Geo. Ellwood, "Arlequin" (Popper).
9.47: Baritone solo—Mr. Len. Barnes, "When the Sergeant-Major's on Parade" (Longstaffe).
9.50: Humorous song—Mr. Doug. Stark, "Old Flames" (Wilcock).
9.53: Hawaiian guitars—Berthold and Bent, (a) selections from "Il Trovatore" (Verdi); (b) "Kawahou Waltz" (M.S.).
9.59: Vocal quartet—The Orpheus Quartet, "Ciribiribin" (Pestalozza).
10.4: Selected gramophone recital.
11.0: Repeat performance of Maori concert, given on February 6, 1928.

3YA CHRISTCHURCH (306 METRES)—TUESDAY, FEBRUARY 12.

11 p.m. to 1 a.m.: Circumstances permitting, the special programme which is being presented by 2YA, Wellington, in commemoration of the signing of the Treaty of Waitangi on February 6, 1840, will be received and rebroadcast.
(See detailed programme for 2YA, Wellington, February 6, 1928.)

4YA DUNEDIN (463 METRES)—TUESDAY, FEBRUARY 7.

- 3 p.m.: Town Hall chimes.
3.1: His Master's Voice recital.
3.15: Address on "Fashions," by a representative of the D.I.C.
3.30: Studio music.
4.0: Address on "Domestic Uses of Electricity," by a representative of Turnbull and Jones, Ltd.
4.15: His Master's Voice recital.
4.30: Close down.
6.0: Town Hall chimes. Children's hour—Big Brother Bill, assisted by young entertainers.
7.15: News session.
7.30: Address on the "Otago Province," by Mr. W. B. Seel, secretary of the Otago Expansion League.
8.0: Town Hall chimes. Band concert by the St. Kilda Band, under the conductorship of Mr. James Dixon, also assisting artists.
8.1: March—St. Kilda Band, "The Exile" (Warren).
8.6: Humorous monologue—Miss Anita Winkel, "His First Long Trousers."
8.11: Humorous songs—Mr. Chas. Rowand, (a) "The Mice Have Been at it Again" (Crawley); (b) "Whooch for the Dee Dough" (Earle).
8.18: Cornet duet—Messrs. G. Christie and W. Smith, with band accompaniment, "Besses o' the Barn" (Carrie).
8.24: Recital—Mr. J. B. McConnell, "Periodicals" (Squire).
8.29: Tenor solos—Mr. Alfred Walmesley, (a) "My Nannie's Awa"; (b) "Take a Pair of Sparkling Eyes" (Sullivan).
8.36: Selection—St. Kilda Band, "Parsifal" (Wagner).
8.50: Recital—Miss Anita Winkel, "The Lure of the Little Voices" (Service).
8.55: Baritone solo—Mr. Reg. Richards, "Let Us Forget" (White).
8.59: Waltz—St. Kilda Band, "Syringa" (Taylor).
9.10: Monologue—Mr. J. B. McConnell, "A Bunch of Roses" (Paterson).
9.15: Humorous song at the piano—Mr. Chas. Rowand, "Ragtime Jockey" (Rowand).
9.19: Trombone fantasia—St. Kilda Band, "The Firefly" (Moss).
9.26: Humorous recital—Miss Anita Winkel, "The Culprit."
9.31: Tenor solo—Mr. Alfred Walmesley, "Venetian Song" (Tosti).
9.35: Hymn—St. Kilda Band, "Nearer, My God, to Thee."
9.40: Recital—Mr. J. B. McConnell, "Crossing the Bar" (Tennyson).
9.45: Baritone solos—Mr. Reg. Richards, (a) "When the Swallows Homeeward Fly" (White); (b) "A Memory" (White).
9.50: Overture—St. Kilda Band, "The Bohemian Girl" (Balfe).
10.0: March—St. Kilda Band, "Mount Hobson" (Sutton).
10.4: God Save the King.
11 p.m. to 1 a.m.: Circumstances permitting, 4YA will rebroadcast the special Maori pageant from 2YA, Wellington.

Wednesday, February 8th

1YA AUCKLAND (333 METRES)—WEDNESDAY, FEBRUARY 8.

- 3 p.m.: Afternoon session—Selected Studio items.
4.0: Literary selection—Mr. Culford Bell.
4.30: Close down.
6.0: Children's session—Uncle Tom. Uncle Tom will sing some of his own original ditties, and tell stories, and answer letters. Recitations from Cousin Ruth.
7.15: Talk, by Mr. F. E. Powell.
7.30: News and reports.
8.0: Chimes. Concert by Auckland Artillery Band, under the direction of Mr. E. Tregilgas.
8.1: Overture—Auckland Artillery Band, "Lustspiel" (Kela Bela).
8.7: Contralto solo—Miss Phyllis Hazell, "Hindoo Song" (Bemberg).
8.12: Fantasia—Auckland Artillery Band, "Abyssinian Expedition" (Pridhas).
8.20: Baritone solo—Mr. Frank Sutherland, "Less Than the Dust" (Woodford-Finden).
8.24: Selection—Auckland Artillery Band, "Le Prophete Selection" (Meyerbeer).
8.36: Vocal duet—The Hazell-Sutherland Duo, "O, Lovely Night" (Ronald).
8.40: Novelty—Auckland Artillery Band, "Carmencita" (Durone).
8.47: Contralto solo—Miss Phyllis Hazell, "Omio Firnando" from "Roberto le Diabole" (Meyerbeer).
8.52: Relay of orchestral selections from Rialto Theatre Orchestra, under the direction of Mr. Henry C. Engel.
9.7: Weather forecast.
9.9: Selection—Auckland Artillery Band, "To-night's the Night" (Kern).
9.24: Baritone solo—Mr. F. Sutherland, "Il Balen" from "Il Trovatore" (Verdi).
9.29: Auckland Artillery Band—"Bohemian Suite," (1) "The Appeal," (2) "The Caravan," (3) "The Tarantella."
9.42: Vocal duet—Hazell-Sutherland Duo, "The Voyagers" (Sanderson).
9.47: Selection—Auckland Artillery Band, selections from "The Mikado" (Sullivan).
9.57: March—Auckland Artillery Band, "Honest Toil March."
10.2: A thought.
10.4: Close down.

2YA WELLINGTON (420 METRES)—WEDNESDAY, FEBRUARY 8.

SILENT DAY.

3YA CHRISTCHURCH (306 METRES)—WEDNESDAY, FEBRUARY 8.

- 3 p.m.: Afternoon session—Selected Studio items.
4.30: Close down.
6.0: Children's hour—Uncle Peter and Mother Hubbard. Bedtime stories and birthday greetings.
7.15: Addington stock market reports.
7.30: News and reports.
8.0: Chimes. Relay of orchestral selections from Grand Picture Theatre Orchestra, under the direction of Mrs. K. Black.
London travelogue concert by Mr. A. G. Thompson, B.A., and his quartet, in old songs at Old London places, with dialogue introducing each locality.
8.15: Baritone solo—Mr. A. G. Thompson, "The Nightingale of Lincoln's Inn" (Oliver).
8.19: Instrumental trio—Christchurch Broadcasting Trio, "Romance Intermezzo and Saltarello" (Bridge).
8.29: Tenor solo—Mr. T. G. Rogers, "Vauxhall Way" (Oliver).
8.32: Humorous recital—Mr. Albert Spicer, "The Introduction" (M.S.).
8.38: Soprano solo—Miss Mary Shaw, A.R.C.M., "Tatters" (Lane).
8.42: Vocal quartet—The Dulcet Quartet, "Drink to Me Only" (Button).
8.46: Cello solo—Mr. Harold Beck, "Melodie" (Purcell).
8.51: Sacred quartet—Messrs. Mary Shaw, A.R.C.M., Nellie Lowe, Messrs. Rogers and Thompson, "Come, Holy Ghost" (Atwood).
8.56: Soprano solo—Miss Mary Shaw, A.R.C.M., "May Day at Islington" (Oliver).
8.58: Weather forecast.
9.0: Relay of orchestral selections from Grand Picture Theatre.
9.15: Baritone solo—Mr. A. G. Thompson, "Who'll Buy My Lavender?" (German).
9.22: Contralto solos—Miss Nellie Lowe, (a) "Who'll Buy My Strawberries?" (Oliver); (b) "London Spring Song" (Oliver).
9.25: Instrumental trio—Christchurch Broadcasting Trio, (a) "Cantabile" (Franck); (b) "La Coquette" (Translatour).
9.37: Tenor solo—Mr. T. G. Rogers, "Sally in Our Alley" (traditional).
9.43: Cello solo—Mr. Harold Beck, "Minuetto" (Becker).
9.49: Humorous recital—Mr. Albert Spicer, (a) humorous stories; (b) "Is Pipe."
9.56: Coster song—Mr. A. G. Thompson, "My Old Dutch" (Ingle).
God Save the King.

4YA DUNEDIN (463 METRES)—WEDNESDAY, FEBRUARY 8.

SILENT DAY.

(CONTINUED ON PAGE 10.)

RADIO Accessories

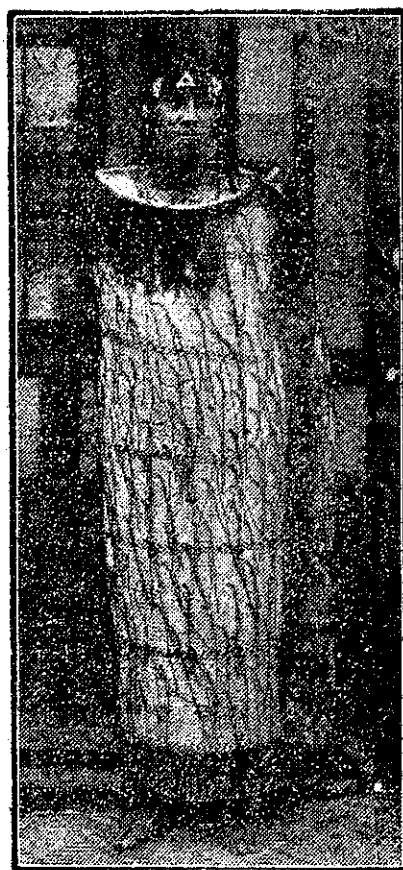
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MEI PEREPE.
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critical appreciation. With unsympathetic treatment, good music can degenerate into very bad music. Through interpretation the artist creates an honest response to his audience, despite the formidable obstacles of catholic taste and limited musical education. To which we may add, "It all depends."

Personally, "Switch" can appreciate all types of music, down to jazz. But there are some jazz composition which possess neither harmony nor melody, but resemble more a pitched battle between the saxophone and the muted cornet, with the other instruments endeavouring to act as mediators.

The natural wavelength of the average aerial can be approximately calculated by multiplying by 4 to 4.5 the total length of the aerial and lead-in. Thus, if an aerial and lead-in total 100 feet: 100ft. x 4.5, equals 450ft., equals 137 metres. A metre is equal to nearly 39½ inches.

The functions of a broadcast receiving system are (a) to collect the radio wave energy in its antenna, in the form of high-frequency currents; (b) to select, to the exclusion of other channels, the currents lying in the band of frequencies occupied by the station to which it is desired to listen and then, (c) to amplify these currents, and (d) to convert them into audio-frequency (telephonic) currents, which are in turn amplified and delivered to the telephone receivers or a loudspeaker.

It is good practice to keep a radio wet battery always well charged. If the owner has a home-charger it would be better for the battery to be recharged after two or three nights' operation. No wet battery should be permitted to become more than two-thirds exhausted.

An English authority says that when a person is speaking through a microphone, good enunciation is of vital importance; every word should be clearly pronounced, and the last syllables must not be slurred or clipped, nor must the voice be allowed to drop towards the end of sentences. It is not necessary to speak loudly—pitch is far more important than volume—nor should the delivery be very rapid. When the performer cannot be seen, the hearers require more time to grasp the meaning of what is said, or sung, than when they can both see and hear the speaker or singer.

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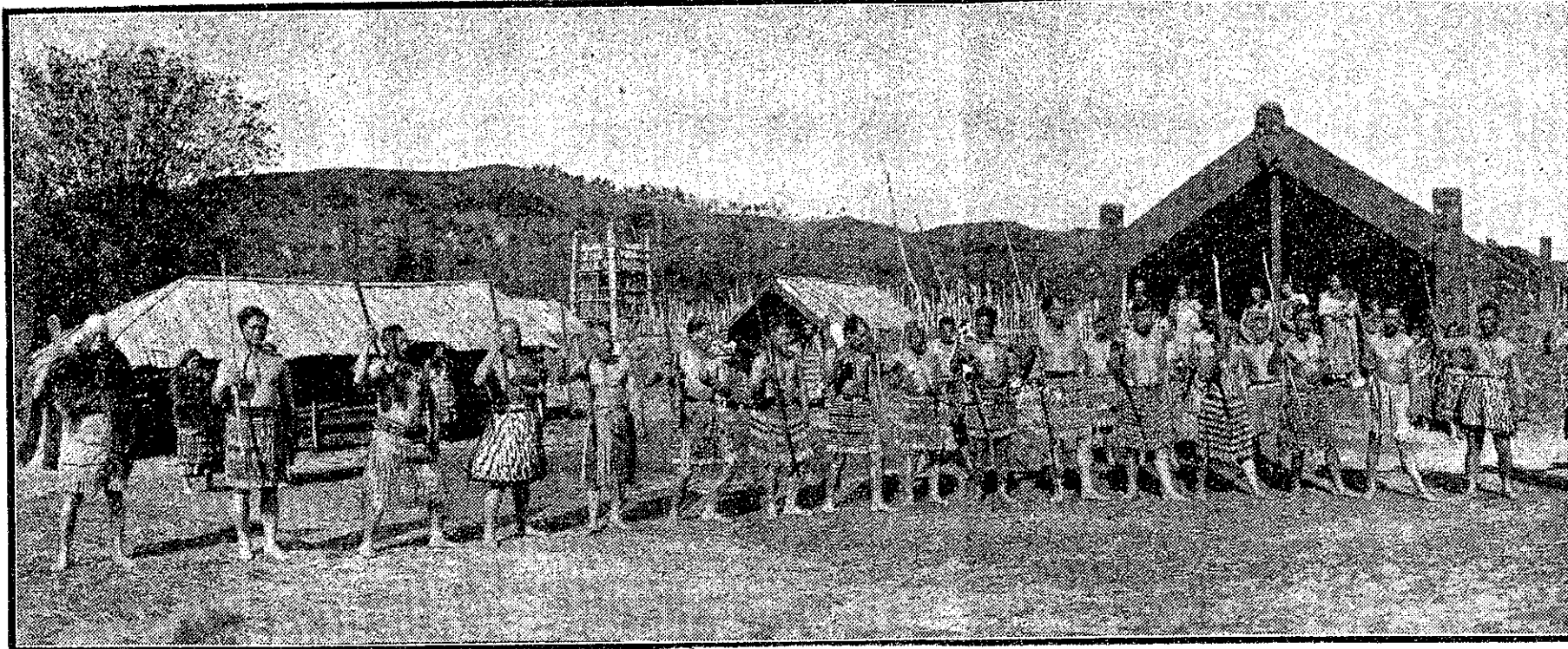


HAMIORA HAKOPA.
Denton, Photo.

February 6, 1840

On February 6, 1840, there was concluded the famous Treaty of Waitangi, under which the sovereignty of Queen Victoria was accepted by the Maori chiefs signatory thereto. That document was a very simple one, and has been the charter since of Maori freedom and equality with the pakeha.

In commemoration of the occasion a Radio Maori Pageant is being given on February 6 and 7 from 2Y.A. In this the coming of the white race and the signing of the Treaty are incorporated as one of the six phases into which Maori life in New Zealand divides.



MAORI WARRIORS RANGED IN LINE FOR THE HAKA OF WELCOME



A GROUP OF SOME OF THE PERFORMERS IN THE RADIO PAGEANT.



A MASSED ASSEMBLY OF POI DANCERS (AND OTHERS) IN A MAORI VILLAGE, NOTE THE COSTUMES OF THE MAORI MAIDENS AND THE RAUPO "POIS," THE OF THIS DANCE,

and Life of the Maori Race in New Zealand



LINE FOR THE HAKA OF WELCOME

R. P. Moore, Photo.

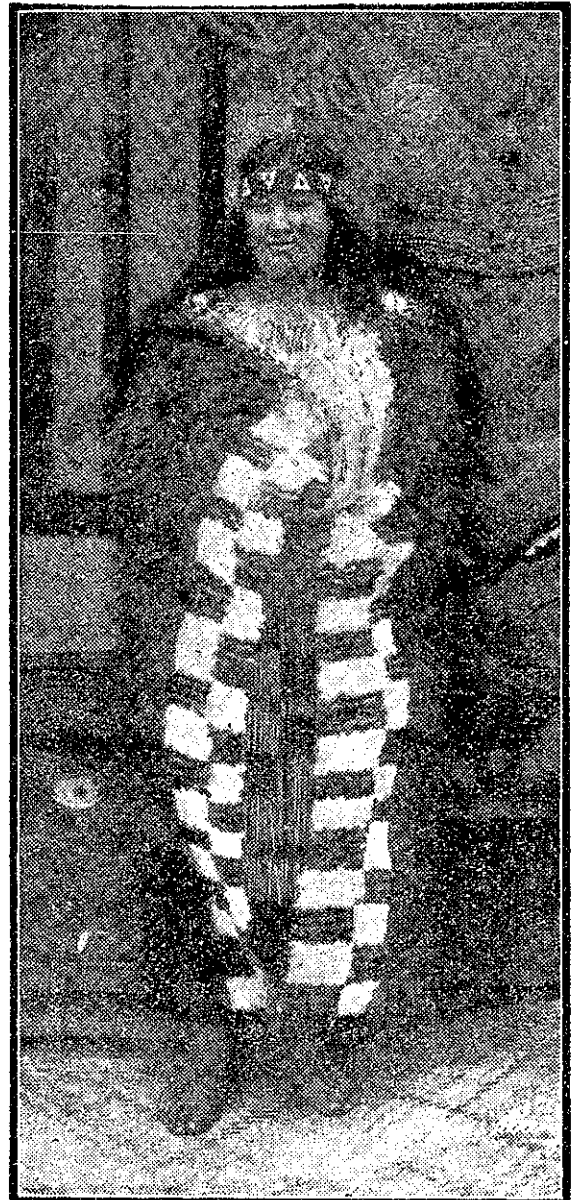


FORMERS IN THE RADIO PAGEANT.

Denton, Photo.

Feb. 6-7, 1928

The pageant to be broadcast on these two evenings—on the latter for the special benefit of Australia and overseas listeners—will constitute one of the most effective measures ever taken for informing the pakeha public of the romantic past and present adaptability of the Maori race. The beauty and rhythm of their music will be demonstrated to a circle the extent of which it will be hard to estimate. The reception of this performance in Australia will be eagerly looked for and its success will be a triumphant vindication of the establishment of 2YA in its present power and strength.



MRS. RANGI TAKARANGI.

Denton, Photo.



OF THE MAORI MAIDENS AND THE RAUPO "POIS," THE MANIPULATION OF WHICH IS SUCH A FEATURE DANCE.

R. P. Moore, Photo.

Programmes Continued

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According to modern and present-day views, the chemical atoms of which material objects are built up are each composed of a nucleus, which is itself a compact of protons, or particles of positive electricity and electrons, which are particles of negative electricity, and around this nucleus are grouped and revolve a certain family of electrons, like planets around the sun.

It will probably be an old story to hear what dire results may come from trying to use the valves in the radio receiver to light up the room or to illuminate the interior of the cabinet. The modern valves are made to operate properly with but little illumination coming from the filaments. Nothing is gained by burning the filaments brightly; on the contrary, much may be lost. Remember that when the voltage on the filament of a valve is even as little as 10 per cent. above the voltage it was designed for, the life of the valve may be cut in half.

Much success has been achieved recently in Australia in the rebroadcasting of transmissions from the British station, 8SW, Chelmsford. Owing to the fact that the British announcer speaks rapidly, and seldom announces the call of the station, many listeners have been puzzled to know what station was being rebroadcast. It has been noticed on several occasions that commercial wireless telegraph stations have interfered with reception of the British programmes. As 8SW, England, did not go on the air until 1 a.m., New Zealand time, it has not been practicable for that station to be relayed in the Dominion.

Thursday, February 9th

1YA AUCKLAND (333 METRES)—THURSDAY, FEBRUARY 9.

- 3 p.m.: Afternoon session—Selected Studio items.
4.0: Literary selection, by Mr. Culford Bell.
4.30: Close down.
6.0: Children's hour—Peter Pan. Peter Pan takes the Radio Family a trip through a newspaper office, and explains the printing of a newspaper. Letters and birthday greetings.
7.15: News and reports, book review.
8.0: Chimes.
8.1: Relay of orchestral overture from Strand Theatre Orchestra, under the direction of Eve Bentley.
8.16: Vocal quartet—Premiere Quartet, "The Sands of Dee" (Clay).
8.20: Baritone solo—Mr. H. Barry Coney, "Silent Noon" (Vaughan Williams).
8.25: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Trio No. 4 in C—Allegro" (Mozart).
8.34: Contralto solo—Miss Mina Caldwell, "Oh, Love from Thy Power" (Saint-Saens).
8.39: Cello solo—Miss Lalla Hemus, "Romance" (Goltermann).
8.44: Recital—Mr. Thomas Harris, "Little Irish Mother."
8.49: Vocal trios—The Snappy Three, (a) "Russian Lullaby"; (b) "Lucky Day."
8.57: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Humoresque" (Hansen).
9.2: Weather forecast.
9.4: Soprano solos—Miss Christina Ormiston, (a) "Orpheus with His Lute" (Allitsen); (b) "Down in the Forest" (Ronald).
9.12: Tenor solo—Mr. Birrell O'Malley, "A Spirit Flower" (Campbell-Tipton).
9.16: Relay of orchestral selections from Strand Theatre.
9.21: Baritone solo—Mr. H. Barry Coney, "Alleluia" (O'Connor).
9.25: Recitals—Mr. Thomas Harris, (a) "The Goebung Polo Club"; (b) "Tangalangaloo."
9.32: Contralto solo—Miss M. Caldwell, "Here in the Quiet Hills" (Carne).
9.36: Vocal trios—The Snappy Three, (a) "Star of the Desert"; (b) piano, "Popular Medley"; (c) "Go, Wash An Elephant."
9.44: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Trio No. 4 in C—Andante and Finale" (Mozart).
9.53: Tenor solo—Mr. B. O'Malley, "Nirvana" (Adams).
9.57: Vocal quartet—Premiere Quartet, "O, Hush Thee, My Baby" (Sullivan).
10.1: A thought.
10.3: God Save the King.

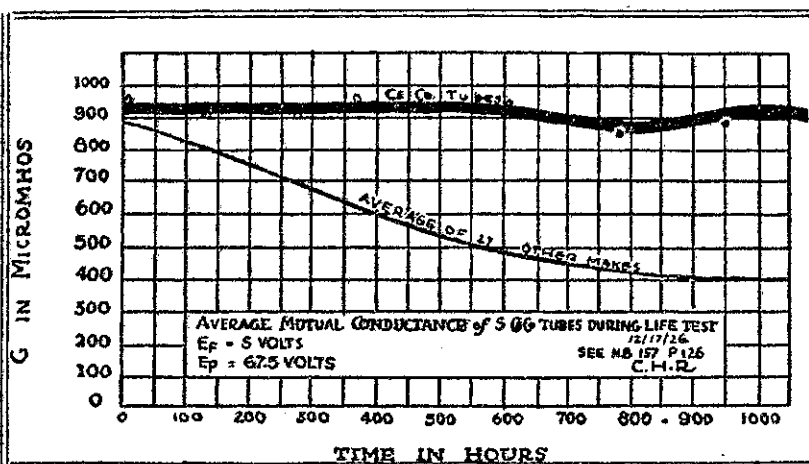
2YA WELLINGTON (420 METRES)—THURSDAY, FEBRUARY 9.

- 3 p.m.: Chimes of the General Post Office clock, Wellington.
3.1: Selected gramophone items.
3.30: Mrs. M. Thomas, representative of Messrs. Kirkecaldie and Stains, Ltd., on "Fashions."
3.45: Selected gramophone items.
5.0: Close down.
6.0: Children's hour.
7.0: News, information, and reports.
7.40: Lecturette—Mr. C. O. Jorgenson, "Care of the Feet."
8.0: Chimes of the General Post Office clock, Wellington.
8.1: Overture—Wellington Artillery Band, "Givenchy March" (Kivins).
8.6: Vocal quartet—Clarion Quartet, "Somewhere a Voice is Calling" (Tate).
8.10: Intermezzo—Wellington Artillery Band, "Aisha" (Lindsay).
8.16: Bass solo—Mr. Jas. Cooke, "Limehouse" (Hayden).
8.20: Descriptive selection—Wellington Artillery Band, "A Sunday Parade" (Hawkins).
8.26: Song at the piano—Mr. Billy Hart, "Somebody Said" (Woods).
8.30: Cornet solo—Sergeant W. H. Bowman, "The Amateur" (Greenwood).
8.34: Tenor solo—Mr. Frank Skinner, "My Pretty Jane" (Old English).
8.38: Serenade—Wellington Artillery Band, "Sweet Dreams to Thee" (Evans).
8.43: Vocal quartet—Clarion Quartet, "Old Mother Hubbard" (Wheeler).
8.47: Variations—Wellington Artillery Band, "Welsh Melody" (Rimmer).
8.54: Baritone solo—Mr. Ray Kemp, "When Good Fellows Get Together" (Bullard).
8.58: Weather forecast.
8.59: Lecturette—Representative Birds' Protection Society, "Native Birds."

ASTOUNDING PROOF!!

THE LONGER LIFE AND STEADIER PERFORMANCE OF "CECO" VALVES

GRAPHICALLY ILLUSTRATED IN COMPARISON WITH TWENTY-SEVEN OTHER MAKES.



YOU WILL NOTE THAT

CECO VALVES

PROVED TO BE AS EFFICIENT AFTER 1000 HOURS OF USE AS WHEN NEW.

This test was conducted by one of the best known set manufacturers (name on request).

ALSO

CECO VALVES

Improve the TONE CLARITY and VOLUME of any set to such an extent that they are recommended by the most famous Radio authorities.

"THERE'S A CECO VALVE FOR EVERY RADIO NEED."
TRY THEM AND BE CONVINCED.

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OPE WHANARERE.
Denton, Photo.

About 28 years ago a Danish inventor, Poulsen, devised what is known as the telegraphone. He showed that speech and music may be magnetically recorded on a steel wire. Such a record can be almost of any desired length, and the reproduction given is extremely faithful. One of these "records" was broadcast in New Zealand, when broadcasting was in its infancy.

Apparently 7ZL, Hobart, is not regarded as a "fairly powerful station" in Australia. The Melbourne "Argus," of January 10, states: "Reports from Tasmania indicate that at least one fairly powerful station will shortly be broadcasting in Hobart. Owing to the small population of Tasmania, and therefore the low revenue that can be collected from license fees, it has been found difficult to provide an effective service for the State. Reports from Tasmania listeners received by 3AR state that, in spite of the prospect of an improved local service, the doings of the stations on the mainland still claim the attention of many Tasmanian listeners."

Station WSYR, Syracuse, U.S.A., is using with success a new radio synchronisation plan, which will permit more regional stations per wave without a heterodyne whistle, according to O. H. Caldwell, Federal Radio Commissioner. The new system, he says, has increased the coverage of transmitter 100 per cent., according to reports received from the station. The method used is to have an operator at Liverpool, N.Y., about six miles from the station. He tunes out any heterodyne howl caused by the station. The receiving set is connected by land wire with the WSYR transmitter, and as he tunes he keeps the Syracuse transmitter at a frequency which will not cause interference with any other station.

"Reaction" consists of feeding back the energy, or part of the energy, proceeding from the plate of a valve on to the grid of the same or another valve. In this way the original energy applied to the grid is considerably magnified, and signals are correspondingly increased in volume.

- 9.11: Cornet duet—Sergeant Bowman and Bandsman Houchen, "Panorama" (Greenwood).
9.15: Vocal quartet—Clarion Quartet, "Spin, Spin" (Jungst).
9.19: Fantasia—Wellington Artillery Band, "Venetian Carnival" (Walton).
9.26: Song at the piano—Mr. Billy Hart, "Baby Face" (Kahn).
9.30: Tenor solo—Mr. Will. Hancock, "I Heard You Go By" (Wood).
9.34: Waltz—Wellington Artillery Band, "Sweet Memories" (Greenwood).
9.41: Vocal quartet—Clarion Quartet, "Oh, If I Only Had You" (Friend).
9.47: Baritone solo—Mr. Ray Kemp, "Go to Sea" (Trotter).
9.53: Two-step—Wellington Artillery Band, "Uncle Tom's Birthday" (Raynor).
God Save the King.

3YA CHRISTCHURCH (306 METRES)—THURSDAY, FEBRUARY 9.

- 3 p.m.: Afternoon session—Selected Studio items.
4.30: Close down.
6.0: Children's hour—Chuckie and Aunt Pat. Bedtime stories, songs, and birthday greetings.
7.15: News and reports.
8.0: Chimes. Relay of orchestral selections from Everybody's Picture Theatre Orchestra, under the direction of Mr. Albert Bidgood.
8.5: A special studio presentation by Madame Gower-Burns's Grand Opera'ic Quartet, of "Merrie England," a comic opera, by Edward German. Cast: Miss Bessie Throckmorton, Madame Gower-Burns; Jill-all-alone, Miss Jessie King; Sir Walter Raleigh, Mr. Harold Prescott; the Earl of Essex, Mr. Bernard Rennell; the May Queen, Madame Gower-Burns; Queen Elizabeth, Miss Jessie King.
Act I.
Opening chorus—The Quartet, "Sing a Down, a Down, a Down."
Contralto solo and quartet—Jill-all-alone and the Quartet, "O, Where the Deer Do Lie."
Tenor solo and quartet—Raleigh and the Quartet, "That Every Jack Should Have his Jill."
Quartet—"Love is Meant to Make Us Glad."
Ballad—Bessie Throckmorton, "She Had a Letter from Her Love."
Soprano and tenor duet—Bessie Throckmorton and Raleigh, "When True Love Hath Found a Man."
Baritone solo and quartet—Essex and the Quartet, "Who Were the Yeomen?"
Contralto solo and quartet—Queen Elizabeth and the Quartet, "O, Peaceful England."
Soprano solo and quartet—Bessie Throckmorton and the Quartet, "It Is a Tale of Robin Hood."
Act II.
Instrumental trio—Christchurch Broadcasting Trio, "Gavotte" (Gluck).
Chorus—The Quartet, "In England, Merrie England."
Contralto and tenor duet—Jill-all-alone and Raleigh, "The Merry Month of May."
Tenor solo—Raleigh, "Dan Cupid Hath a Garden."
Soprano solo—Bessie Throckmorton, "O, Who Shall Say that Love is Cruel?"
Baritone solo—Essex, "When Cupid First This Old World Trod."
Finale—The Quartet, "Now, Who'll Come? said Robin Hood."
Weather forecast.
Relay of orchestral selections from Everybody's Theatre.
9.15: Baritone solo—Mr. Bernard Rennell, "The Rebel" (Wallace).
9.19: Instrumental trio—Christchurch Broadcasting Trio, "Allegro Moderato from Trio in A Flat" (Haydn).
9.29: Soprano solo—Madame Gower-Burns, "Tell Me, My Heart" (Bishop).
9.33: Humorous sketch—Mr. J. F. Cannell and Miss Lucy Fullwood, "Cricket" (Sims).
9.39: Pianoforte solo—Miss Bessie Pollard, "Finlandia" (Sibelius).
9.44: Tenor solo—Mr. Harold Prescott, selected.
9.48: Instrumental trios—Christchurch Broadcasting Trio, (a) "Andante in A Major" (Papini); (b) "Polacca" (Thomas).
9.57: Contralto solo—Miss Jessie King, selected.
10.0: Pianoforte solo—Miss Bessie Pollard, "Andante Finale" (being a left-hand study, improvised from "Lucia di Lammermoor") (Liszt).
10.4: Humorous sketch—Mr. J. F. Cannell and Miss Lucy Cowan, "The Proposal" (Herbert).
God Save the King.

4YA DUNEDIN (463 METRES)—THURSDAY, FEBRUARY 9.

- 7 p.m.: Town Hall chimes.
7.1: Request gramophone concert.
7.30: News session.
8.0: Town Hall chimes.
8.1: Light orchestral numbers relayed from the Octagon Theatre Orchestra, under the direction of Mr. L. D. Austin.
8.11: Contralto solos—Miss Dorothy Skinner, (a) "Life and Death" (Coleridge-Taylor); (b) "Drink to Me Only With Thine Eyes" (traditional).
8.17: Pianoforte solo—Miss Marjorie Watts, "Jardins Sous La Pluie" (Debussy).
8.22: Baritone solo—Mr. L. M. Cachemaille, "Dream Merchandise" (Bantock).
8.26: Cello solo—Mr. Malcolm Robilliard, "Keltic Lament" (Foulds).
8.31: Mezzo-soprano solos—Miss Agnes Guy, (a) "Like to a Damask Rose" (Elgar); (b) "You've Got Your Mother's Eyes" (Drummond).
8.38: Relay of orchestral music from the Octagon Theatre.
8.48: Bass solo—Mr. F. C. Cooper, "Dream of Life" (Lohr).
8.52: Pianoforte solo—Miss Marjorie Watts, "Liebestraume No. 3" (Liszt).
8.56: Address by Pastor W. D. More.
9.12: Contralto solo—Miss Dorothy Skinner, "Still as the Night" (Bohm).
9.16: Cello solo—Mr. Malcolm Robilliard, "Barcarolle" (Fitt).
9.21: Baritone solos—Mr. L. M. Cachemaille, (a) "Ah! Weep No More" (Tchaikowsky); (b) "I Will Not Grieve" (Schumann).
9.28: Relay of orchestral music from the Octagon Theatre.
9.40: Mezzo-soprano solo—Miss Agnes Guy, "A Japanese Love Song" (Brahe).
9.43: Pianoforte solo—Miss Marjorie Watts, "Valse No. 7 in C Sharp Minor" (Chopin).
9.48: Bass solos—Mr. F. C. Cooper, (a) "The Riderless Steed" (Hussell); (b) "Auld Scotch Mither o' Mine" (Stevens).
9.55: Cello solo—Mr. Malcolm Robilliard, "Plaint d'Amour" (Tellier).
10.0: Close down.

Friday, February 10th

1YA AUCKLAND (333 METRES)—FRIDAY, FEBRUARY 10.

- 3 p.m.: Afternoon session—Selected Studio items.
4.0: Literary selection—Mr. Culford Bell.
4.30: Close down.
6.0: Children's hour—Nod. Bedtime stories, letters, and birthday greetings. Cousins will sing and recite.
7.15: Talk on "Motoring" by Mr. Geo. Campbell.
7.30: News and reports.
8.0: Chimes.
8.1: Relay of orchestral overture from Princess Theatre Orchestra, under the direction of Mr. Howard Moody.
8.16: Vocal quartet—Waikato Quartet, "The Lost Chord" (Sullivan).
8.20: Cornet solo—Mr. Reg. Davies, "At Dawn" (Code).
8.25: Mezzo-soprano solo—Madame Mary Towsey, "So We'll Go No More a-Roving" (Valerie-White).
8.29: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Allegro Con Spirito" (Fesca).
8.38: Tenor solo—Mr. James Simpson, "Sally in Our Alley."
8.42: Recital—Mr. J. F. Montague, "The 'Crispin' Speech" (Shakespeare).
8.47: Soprano solo—Miss Lola Solomon, "Birthday" (Woodman).
8.50: Pianoforte solo—Mr. Cyril Towsey, "To the Sea" (Schubert-Liszt).
8.55: Baritone solo—Mr. Frank Sutherland, "Kashmiri Song" (Woodford-Finden).
9.0: Weather forecast.
9.2: Relay of orchestral selections from Princess Theatre.
9.17: Vocal duet—Madame Mary Towsey and Miss Lola Solomon, "Sainted Mother" from "Maritana" (Wallace).
9.22: Cornet solos—Mr. R. Davies, (a) "At Sunset" (Code); (b) "Stars in a Velvety Sky" (Clarke).
9.29: Tenor solo—Mr. J. Simpson, "Youth and Spring."
9.33: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Bouree" (Bach).
9.42: Baritone solo—Mr. F. Sutherland, "Brian of Glenaar" (Graham).
8.46: Recital—Mr. J. F. Montague, (a) a group of New Zealand poems; (b) some "Meanderings."
9.58: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Scherzo and Finale" (Fesca).

Programmes Continued

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10.5: Quartet—Waiata Quartet, "Brightly Dawns Our Wedding Day" from "The Mikado" (Sullivan).
10.9: A thought.
10.11: God Save the King.
9.54: Vocal duet—Messrs. Simpson and Sutherland, "Watchman, What of the Night?" (Sargeant).

2YA WELLINGTON (420 METRES)—FRIDAY, FEBRUARY 10.

3 p.m.: Chimes of the General Post Office clock, Wellington.
3.1: Selected gramophone items.
4.0: Lecturette—Miss M. Christian, of the Wellington Gas Company, on "Gas Cooking."
4.15: Selected gramophone items.
5.0: Close down.
6.0: Children's hour.
7.0: News session, market reports, and sports results.
8.0: Chimes of the General Post Office clock, Wellington.
8.1: Overture—"Sextet from Lucia di Lammermoor" (Donizetti).
8.5: Vocal quartet—Celeste Quartet, "Dance Durdan" (Dicks).
8.9: Recital—Miss Mavis Rolls, "The Ballad of a Barber" (Beardsley).
8.14: Soprano solo—Miss Myra Sawyer, "Spring's Awakening" (Sanderson).
8.18: Instrumental trio—Symons-Ellwood-Short Trio, "First Movement, F Major Trio" (Saint-Saens).
8.28: Vocal duet—Miss Myra Sawyer and Mr. William Boardman, "Come, Sing to Me" (Thompson).
8.32: Italian mandolin—Mr. Lad Haywood, "There's Everything Nice About You."
8.36: Song at the piano—Mr. H. Montgomery, "Let's Grow Old Together" (Bob Nelson).
8.40: Pianoforte solo—Mr. Gordon Short, "Berceuse" (Chopin).
8.44: Contralto solo—Miss Mabel Dyer, "Look Down, Dear Eyes" (Fisher).
8.48: Hits and harmonies—The Glad Idlers, (a) "There's a Trick in Picking a Chicken" (Robinson); (b) "Under the Bazunka Tree" (Lee).
8.56: Weather forecast.
8.57: Lecturette—Editor-Announcer, "Imperial Affairs."
9.10: Vocal trio—Soprano, tenor and baritone members of Celeste Quartet, "Ever of Thee."
9.14: Instrumental trio—Symons-Ellwood-Short Trio, "Finale from Bache Trio" (Bache).
9.22: Tenor solo—Mr. Edgar Swain, "Here's to Love" (Reubens).
9.26: Humorous recitals—Miss Mavis Rolls, (a) "Little Wild Baby" (Jouvier); (b) "Father's Dress Suit" (Roberts).
9.34: Italian mandolin—Mr. Lad Haywood, (a) "Kiddie Land" (Johnson); (b) "On the Curb" (Johnson).
9.40: Song at the piano—Mr. H. Montgomery, "Poor Papa" (M.S.).
9.44: Bass solo—Mr. William Boardman, "Shipmates o' Mine" (Sanderson).
9.48: Hits and harmonies—The Glad Idlers, (a) "Take Your Finger Out of Your Mouth" (M.S.); (b) "Medley of Popular Hits."
9.56: Vocal quartet—Celeste Quartet, "Killarney" (Balfie).

3YA CHRISTCHURCH (306 METRES)—FRIDAY, FEBRUARY 10.

3 p.m.: Afternoon session—Selected Studio items.
4.30: Close down.
6.0: Children's hour—Big Brother Bedtime stories, songs, and birthday greetings.
7.15: News and reports.
8.0: Chimes. Relay of orchestral selections from Crystal Palace Picture Theatre Orchestra, under the direction of Mr. A. J. Bünz.
8.15: Vocal quartet—The Melodious Four, "The Sea Hath Its Pearls" (Fin-suti).
8.19: Tenor solo—Mr. Russell Sumner, "Red Devon by the Sea" (Clarke).
8.23: Instrumental trio—Christchurch Broadcasting Trio, "Adagio and Rondo from Trio in A Flat" (Haydn).
8.33: Contralto solo—Miss Belle Renaut, "Ferry Me Across the Water" (Romer).
8.37: Humorous recital—Mr. H. Instone, "The Braes System" (Wood).
8.42: Soprano and contralto duet—Miss Frances Hamerton, L.A.B., and Miss Belle Renaut, "I Loved a Lass" (Williams).
8.46: Violin solo—Miss Irene Morris, "Valse Triste" (Sibelius).
8.51: Baritone solos—Mr. T. D. Williams, (a) "War Song" (Elgar); (b) "Devonshire Cream and Cider" (Sanderson).
8.58: Weather report.
9.0: Relay of orchestral selections from Crystal Palace Theatre.
9.15: Soprano solo—Miss Frances Hamerton, L.A.B., "The Blackbird's Song" (Scott).
9.18: Violin solo—Miss Irene Morris, "Souvenir" (Drdla).
9.23: Tenor solo—Mr. Russell Sumner, (a) "I Know of Two Bright Eyes" (Cadman); (b) "When My Ships Come Sailing Home" (Doret).
9.29: Humorous talk—Mr. H. Instone, "House Painting" (own version).
9.34: Contralto solos—Miss Belle Renaut, (a) "In Summer Fields" (Brams); (b) "An Indian Lullaby" (Morgan).
9.40: Instrumental trios—Christchurch Broadcasting Trio, (a) "Reverie du Soir" (St. Saens); (b) "Humoresque" (Widor).
9.50: Soprano solos—Miss Frances Hamerton, L.A.B., (a) "Over the Mountains" (Quilter); (b) "How the Holly Got Its Thorns" (Besley).
9.55: Baritone solo—Mr. T. D. Williams, "The Desert" (Emanuel).
9.59: Vocal quartet—The Melodious Four, "I Saw Lovely Phyllis" (Bevan).
10.2: Tenor and baritone duet—Messrs. Russell Sumner and T. D. Williams, "Love and War" (Cooke).
God Save the King.

4YA DUNEDIN (463 METRES)—FRIDAY, OCTOBER 10.

3 p.m.: Town Hall chimes.
3.1: His Master's Voice recital.
3.15: Afternoon tea music from the Savoy.
3.30: Studio music.
4.15: His Master's Voice recital.
4.30: Close down.
6.0: Town Hall chimes. Children's hour—Big Brother Bill, assisted by youthful entertainers.
7.15: News session.
7.30: Talk on books by Mr. H. Greenwood, librarian of the Dunedin Athenaeum.
8.0: Town Hall chimes.
8.1: Bass solos—Mr. J. B. Macpherson, (a) "Invictus" (Huhn); (b) "Long Ago in Alcala" (Messager).
8.8: Pianoforte solo—Miss A. D. Allan, "Introduction and Fugato" (Harris).
8.13: Tenor and solo—Mr. L. E. Dalley, "Lolita" (Buzzi-Peccio).
8.17: Recital—Miss Sheila Neilson, "The Norman Baron."
8.22: Soprano solo—Miss Roma Buss, "The Wind" (Spross).
8.26: Pianoforte solo—Miss A. D. Allan, "Romanze" (Sibelius).
8.32: Mezzo-soprano solos—Miss Mollie Andrews, (a) "All Through the Night" (Somerville); (b) "Love's Garden of Roses" (Wood).
8.38: Recital—Miss Sheila Neilson, "Old Perriot."
8.43: Pianoforte solo—Miss A. D. Allan, "Sonata" (Scarlatti).
8.48: Bass solo—Mr. J. B. Macpherson, "Prologue, from Pagliacci."
8.53: Soprano solos—Miss Roma Buss, (a) "Yet, Ah, That Spring Should Vanish" (Whiting); (b) "Sing, Joyous Bird" (Phillips).
9.0: Recital—Miss Sheila Neilson, "The Serial Story."
9.5: Tenor solos—Mr. L. E. Dalley, (a) "O, Mistress Mine" (Quilter); (b) "Fair House of Joy" (Quilter).
9.12: Mezzo-soprano solos—Miss Mollie Andrews, "Scottish Bluebells."
9.16: Dance music relayed from the Savoy.
10.0: Close down.

Saturday, February 11th

1YA AUCKLAND (333 METRES)—SATURDAY, FEBRUARY 11.

3 p.m.: Afternoon session—Selected Studio items.
4.0: Literary selection—Mr. Culford Bell.
4.30: Close down.
6.0: Children's hour—Cinderella. Bedtime stories, letters, birthday greetings. Nursery rhyme competition. Talk and jokes by Genial Jimmy.
7.15: News and sports results.
8.0: Chimes.
8.1: Relay of orchestral selections from Rialto Theatre Orchestra, under the direction of Mr. Henry C. Engel.
8.16: Vocal quartet—Lyric Quartet, (a) "Lovely Night" (Chantal); (b) "My Banjo" (Parkes).

8.23: Tenor solo—Mr. Arthur Ripley, "Bird of Love Divine" (Chadwick).
8.27: Instrumental—Penny's Orchestra, (a) "Tripoli"; (b) "Hawaiian Eyes."
8.34: Bass solo—Mr. Ernest Thomas, "Tally Ho" (German).
8.39: Humorous recital—Mr. Alan McElwin, "Humorous Diversion."
8.44: Relay of orchestral selections from Rialto Theatre.
8.59: Weather forecast.
9.1: Vocal quartet—Lyric Quartet, (a) "Oh, Miss Hannah" (Adams); (b) "Deep River" (Parkes).
9.7: Tenor solo—Mr. Herbert Richards, "Pagan" (Lohr).
9.11: Instrumental—Penny's Orchestra, (a) "Pau o Lulu"; (b) "Hawaiian Selections."
9.16: Humour—Mr. Alan McElwin, "More Merry Moments."
9.21: Vocal quartet—Lyric Quartet, (a) "Aloha Ou" (Fennell); (b) "Honolulu Eyes" (Fennell).
9.27: Relay of dance music from Dixieland Cabaret. The Internationals, under Mr. Clyde Howley.
11.0: God Save the King.
Circumstances permitting, a portion of the above programme will be omitted, and will be replaced by a rebroadcast of a special programme from 2YA, Wellington.

2YA WELLINGTON (420 METRES)—SATURDAY, FEBRUARY 11.

SPECIAL EDISON EVENING.

3 p.m.: Afternoon session—Selected Studio items.
5.0: Close down.
6.0: Children's hour.
7.0: News session, market reports, and sports results.
8 p.m.: Chimes of the General Post Office clock, Wellington.
8.1: Overture—First Battalion, Wellington Regiment Band, "Stars and Stripes Forever" (Sousa).
8.5: Introductory announcement.
8.6: Quartet—Melodie Four, (a) "Doan Ya Cry, Ma Honey" (traditional); (b) "Cornfields Medley" (traditional).
8.13: Trio—Symons-Ellwood-Short Trio, "Characteristic" (Hadley).
8.20: Chorus—Wellington Orpheus Musical Society, "Battle Hymns of the Republic"; (b) "Hail, Columbia" (Phyla).
8.28: Violin—Miss Ava Symons, "Alabama" (Spalding).
8.32: American humour—Mr. Vernon Oswin, "Melodrama," by Dr. Oliver Wendell Holmes; and "Sargasso Sea," by McIntosh.
8.39: Song at piano—Mr. Billy Hart, "Where Does Daddy Go?" (Williams).
8.43: Selection—Wellington Regiment Band, "American Airs" (Greenwood).
8.47: Speech—Sir Frederick Chapman, president of the English-Speaking Union, "An Eulogy of Thomas Edison, the Great Inventor."
9.0: Soprano solo—Miss Gretta Stark, "At Dawning" (Cadman).
9.4: March—Wellington Regiment Band, "Manhattan Beach" (Sousa).
9.9: Speech—Mr. W. L. Lowrie, American Consul-General, "Response to Sir Frederick Chapman."
9.20: Chorus—Wellington Orpheus Musical Society, "Swrod of Deliverance." Solo—Miss Lily Mackie, "Agnus Dei." Chorus—"Song of the Marching Men" from "The New Earth" (Henry Hadley).
9.32: Address, with musical honours—Mr. Thomas A. Edison, "Message specially recorded for New Zealand listeners on the occasion of his eighty-first birthday."
9.36: Quartet—Melodie Four, "Yankee Rose" (arr. Frank Crowther).
9.40: Piano—Mr. Gordon Short, "Keltic Sonata" (McDowell).
9.49: Humour—Mr. Byron Brown, "Our Guide in Rome" from "The Innocents Abroad" (Mark Twain).
9.56: Song at piano—Mr. Billy Hart, "And a Little Child" (Harris).
10.0: Reverie—Wellington Regiment Band, "Bells at Sunset" (McKenzie).
10.6: Chorus—Wellington Orpheus Musical Society, "Dixie."
10.12: Cello solo—Mr. Geo. Ellwood, "Serenata" (Baron).
10.17: Massed voices—"Yankee Doodle" (traditional).
10.22: March—Wellington Regiment Band, "Double Eagle" (J. F. Wagner).
(At the conclusion of the above programme, prominent American residents will give a series of old-time songs and choruses.)

3YA CHRISTCHURCH (306 METRES)—SATURDAY, FEBRUARY 11.

6 p.m.: Children's hour—Uncle Sam and Aunt May. Bedtime stories and birthday greetings.
7.15: News and reports.
7.30: Sports results.
7.55: Circumstances permitting, the special programme which is being broadcast from 2YA, Wellington, in celebration of the eighty-first birthday of Thomas A. Edison, the world-renowned inventor, will be received and rebroadcast.
(See detailed programme for 2YA, Wellington, February 11, 1928.)

4YA DUNEDIN (463 METRES)—SATURDAY, FEBRUARY 11.

7.15 p.m.: News session.
7.30: Address on "Interior Decoration," by Miss M. Puchegud.
8.0: Town Hall chimes.
8.1: Light orchestral music relayed from the Empire Theatre Orchestra, under the direction of Mr. Chas. Farnell.
8.11: Tenor solos—Mr. Dan Fogarty, (a) "Green Isle of Erin" (Roehel); (b) "Mother Machree" (Ball).
8.18: Violin solo—Miss Eva Judd, "Andante and Allegro from Sonata in B Minor" (Bach).
8.23: Pianoforte solo—Miss Muriel Caddie, "Chant Polonaise No. 5" (Chopin-Liszt).
8.28: Soprano solo—Miss Edith Morrison, "Waltz Song" from "Tom Jones" (German).
8.33: Cornet solo—Mr. George Christie, "Shylock" (Lear).
8.39: Humorous songs—Mr. Percy James, (a) "I Think of You" (Weston); (b) "The Egg" (Newman).
8.46: Relay of orchestral music from the Empire Theatre.
8.56: Mezzo-soprano solo—Miss Mollie Vickers, "Fierce Flames are Soaring" from "Il Trovatore" (Verdi).
9.1: Violin solo—Miss Eva Judd, "Serenata" (Moscovich).
9.5: Tenor solo—Mr. Dan Fogarty, "Macushla" (Macmurrrough).
9.8: Pianoforte solo—Miss Muriel Caddie, "Minuet" (Grieg).
9.13: Cornet solo—Mr. George Christie, "Intermezzo" (Mascagni).
9.17: Soprano solo—Miss Edith Morrison, (a) "On the Banks of Allan Water." (b) "I've Been Roaming."
9.24: Violin solo—Miss Eva Judd, "Minuet" (Vientempo).
9.31: Humorous song—Mr. Percy James, "On the Piano" (Arthur).
9.35: Pianoforte solo—Miss Muriel Caddie, "Sonata in E Flat, Op. 27, No. 1" (first movement) (Beethoven).
9.41: Cornet solo—Mr. George Christie, "Lucille" (Code).
9.48: Mezzo-soprano solos—Miss Mollie Vickers, (a) "Sigh no More, Ladies" (Keel); (b) "Song of Thanksgiving."
9.54: Relay of orchestral music from the Empire Theatre.
10.0: Close down.

Sunday, February 12th

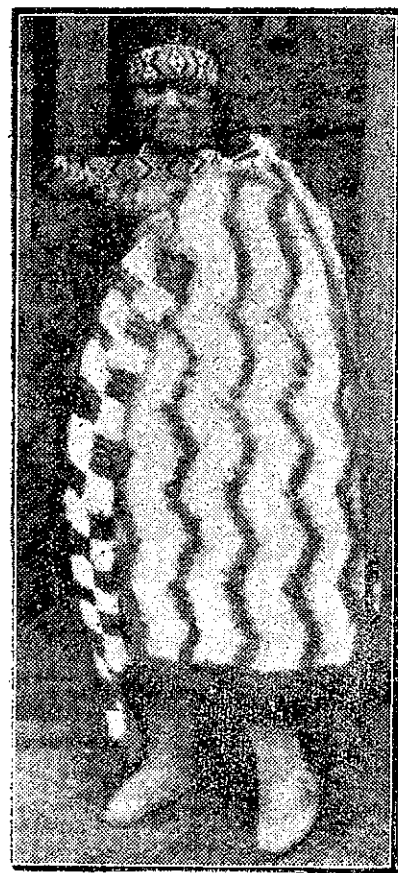
1YA AUCKLAND (333 METRES)—SUNDAY, FEBRUARY 12.

3 p.m.: Afternoon session—Selected Studio items.
4.0: Literary selection by Mr. Culford Bell.
4.30: Close down.
6.0: Children's song service, conducted by Uncle Lea, assisted by scholars of the Auckland Baptist Sunday School Choir.
6.55: Relay of church service from St. David's Church. Preacher, Rev. D. C. Herron; organist, Mr. E. C. Craston.
8.15: Vocal quartet—St. Andrew's Quartet, "Abide With Me" (Thompson).
8.19: Tenor solo—Mr. Robert Peter, "Believe Me If All" (traditional).
8.24: Contralto solo—Miss Phyllis Gribben, selected.
8.28: Instrumental trio—Bosworth-Hemus-Towsey Trio, "Trio, Op. 56—Allegro and Andante" (Reissiger).
8.37: Vocal Quartet—St. Andrew's Quartet, "God So Loved the World" (Stainer).
8.42: Bass solo—Mr. Arthur Colledge, "The Lord Worketh Wonders" (Handel).

(CONTINUED ON PAGE 15.)

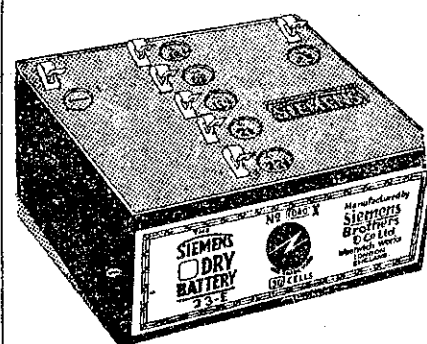
Radio engineers are continuously investigating the mysterious causes of the variation of signal strength in broadcast reception. The intensity of radio signals is affected by temperature conditions, according to conclusions reached over a year ago by Dr. L. W. Austin and Miss Wymore, of the Bureau of Standards. In order to eliminate as far as possible the influence of meteorological phenomena, stations between 125 and 190 miles distant were chosen for the experiments. A greater distance would be subject to the influence of other conditions which would complicate the analysis, while a shorter distance, on the other hand, would not show the influence of weather changes to a sufficient degree to make for reliable observation. A study of extensive data revealed that, when the temperature rises along the signal path, there is a tendency for the signal strength to fall and, conversely, a falling temperature produces a stronger signal. It should be recognised, however, that this is only one of the many influences which determine signal strength.

Radio waves travel through space with the speed of light—300,000,000 metres, or about 186,500 miles per second. Sound travels through the air at the speed of a little less than 1100 feet a second. Through water sound travels four times faster, and through iron or steel nearly fifteen times as quickly.



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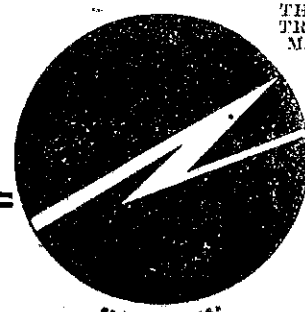
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OUTPUT FILTER CHOKES

LOW cost of production probably accounts for the large number of receivers in which no provision is made to keep the D.C. component out of the loudspeaker. Of sets manufactured in Britain during the past year, 88 per cent. provided for direct coupling to the speaker, 9 per cent. had a built-in choke filter, and 8 per cent. were fitted with an output transformer.

Where the output of a set is not large, H.T. voltage low, and only a few milliamps being passed by the last valve, there is no great need for a filter, but the speaker must be connected with the correct polarity. But when the output of the last valve is from 10 to 20 milliamps and over 90 volts some means of protecting the speaker windings is very necessary.

The output of the last valve of a receiver is composed of direct current from the high-tension battery, and a superimposed alternating current which actuates the loudspeaker.

In order to get sufficient turns of wire on the speaker magnets so that they may be influenced by the small alternating current, the wire used must be very fine—too fine to properly carry even a small direct current without offering heavy resistance. And as the direct current component does no useful work in the speaker portion of the circuit, it may be shunted or by-passed back to the battery without traversing the speaker windings. This is accomplished by means of a low-frequency iron-cored choke coil of many turns of fine wire. This coil allows direct current to pass fairly easily provided that its resistance is not made too high by having the wire of too great a length or too fine a gauge. This coil, consisting as it does of a large number of turns of wire over an iron core, has the property of "choking" back or stopping the progress of alternating current, which must therefore pass through the speaker windings and by influencing the strength of the magnets, actuate the diaphragm. A fixed condenser of large capacity is also included in the circuit.

If an output filter is necessary, then it is because the output of the receiver is comparatively large, so that the direct-current component will be large, and must not be unduly retarded in its path, otherwise the plate voltage on the last valve is unnecessarily reduced. A choke coil such as is under discussion is measured in two different ways, firstly there is the resistance in ohms offered to the passage of direct current, and consistent with the number of turns necessary, this factor must be kept down by not employing too fine a gauge of wire. Secondly, there is the value of the coil as an inductance, which is expressed in "Henries." Inductance is the value of the tendency to produce "back voltage" due to the action between the turns of wire and the magnetic flux surrounding them. This intersection of turns and lines of force produces a voltage in the coil that tends to resist the change in current, and this "back voltage" is always opposed to the applied E.M.F., and by opposing any rapid change in direction, stops the progress of alternating current.

Another factor demanding, within reason, the limitation of turns is that of "saturation." For every case there is a number of turns that will produce magnetic saturation of the core, and once this saturation point is reached, it cannot be exceeded, but it is important to note that when this point is being approached, the impedance or "choking" qualities of the coil are greatly impaired. In purchasing a choke coil, it is as well to know, if possible, the amount of direct current it will carry without saturation. As the number of turns to be employed is necessarily large, saturation by a small current is avoided by making one or more "gaps" in the core, and although such gaps may be less than one sixteenth of an inch, with them much more current may be carried without saturation of the core.

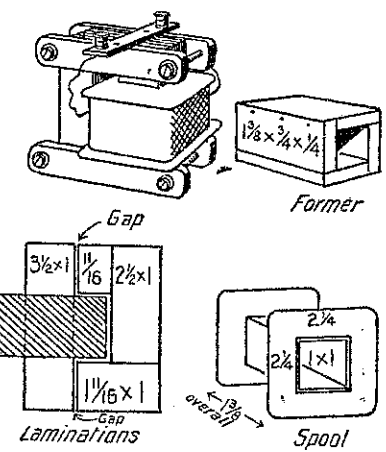
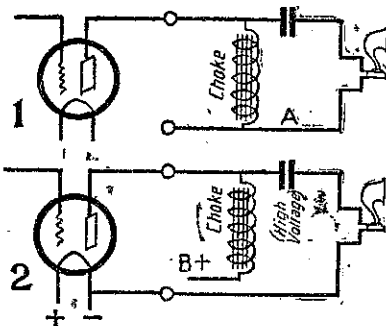
CHOKE FILTER CIRCUITS.

Three regular methods of coupling are in general use. No. 1 being the

most popular, as shown in the diagram, in which a low-voltage condenser of two microfarads may be used, as there is little danger of it breaking down, as the only voltage impressed across it is the drop in the choke.

The second method is a variation of the first, effected by placing an additional 2 mfd. condenser in series at A. This method cuts the speaker from any direct connection with the set, and is good where long leads are in use to other rooms or the garden.

The third method, shown in figure 2 is a good circuit, and is particularly recommended where a B eliminator is in use, as the grounding by connection to negative A assists in eliminating hum. In this circuit the loudspeaker has no high voltage upon it,



but as the full B potential is only prevented from shorting through the speaker by the fixed condenser, this latter must be of a guaranteed high voltage type.

The value of coupling condensers may be from 2 to 6 microfarads, but the former is usually quite sufficient capacity. It is not wise to go below this value as the larger the capacity, the more will the low audio frequencies be heard.

VALUES OF CHOKE COILS

Although choke coils of as high an inductance as 100 henries have been used in filter circuits, such a high value is not recommended, as the direct current resistance will probably be much too high. On the other hand a value as low as 15 henries may be very successfully used, and 20 henries is quite a regular standard value. This type of choke coil is essentially one of low inductance, and the employment of those intended for impedance coupling in amplifiers will not necessarily be successful. Values up to 30 and 50 henries will in many cases be quite suitable for the purpose, provided the winding is not unduly fine.

MAKING A CHOKE COIL.

A good filter choke is easily made of galvanized strips one inch wide, costing 3s. 6d. per dozen in 3ft. lengths (Messrs. Johns, Ltd., Chancery Street, Auckland). About 16 lengths will be required. The core is built up one inch in thickness. Nothing is gained by cutting down the cross-section of the core, as much more wire must be used to obtain the same inductance value.

The galvanized is cut with ordinary snips, but as this process is inclined to curve the ends where cut, this curve should be tapped out on an iron surface with a hammer. Four sizes of strip must be cut, 3, 2, 1 1/2, and 1 1/4 long respectively. Sufficient of each must be cut to form a pile one inch high when compressed. For clamps four pieces of wood are required 4in. long, 1in. wide, 1/2 thick, drilled at each end, centres 3 1/2 in. apart. The spool ends are cut from millboard, 2 1/2 in. square, with a centre hole just over one inch square in order to glue over the ends of thin card used for centre of spool, and bent round former. A handy winding former may be built up as shown, or made of a small block drilled through the centre or as convenient for mounting on a winding spindle.

The spool is wound with three-quarters of a pound of 36's s.w.g. enamelled

wire, winding irregularly in groups, putting a tissue-paper in occasionally. When winding is complete, with the two ends of the wire through the spool ends, the 3 1/2 in. strips are packed in to fill the centre of the spool. Then the other three sizes of strips are assembled as shown, brick-wise, so that joints do not coincide in adjacent layers. The ends AA are butted against BB with a piece of visiting card or slightly thicker card, separating the point of contact. The pair of clamps is then placed upon each end and the whole held together with four brass bolts 2in. long by 3-16 thick. A small piece of ebonite is then screwed to the top clamps, projecting each side to take terminals for the two leads. This is a good choke for average conditions, voltages from 90 upwards.

The theoretically correct gap for a stalling iron choke is 0.005 (5-1000ths) of an inch for every inch of core length, but the best amount can only be properly determined by trial upon the work for which the choke is intended, but in the case of a filter is not usually very critical. The inductance of the choke coil is proportional to the cross-section of the core, to the square of the number of turns of wire, and inversely to the length of the air gap.

The alternative to choke-condenser coupling is the use of an output transformer of 1-1 ratio specially made for the purpose, passing only alternating current to the speaker, but it is important for good results that the impedance of the transformer secondary winding should be approximately equal to that of the loudspeaker.

(End of Construction Section.)

The latest, most authentic, and quite the newest book on the market is "Modern Wireless," by Robert W. Beare, with valuable introductions by Captain Eekersley and Arthur Burrows. Full-page plates, keyed diagrams, and helpful "how-to-do-it" illustrations.

This new work gives the knowledge many need. "Modern Wireless" shows how to make complete wireless sets. "While every print is made clear in plain language, it must not be concluded that it is intended only for the amateur. It covers the whole subject, and will be found exceptionally helpful to the practised experimenter and the wireless specialist.

This comprehensive work is now available in New Zealand, and may be obtained from James Johnston, Ltd., publishers, Dunedin. Easy terms of payments if desired.—Advt.

THAT RUSSIAN STATION

"RFM" LOCATED.

Some little mystery, it will be remembered, has attached to a Russian station heard frequently in New Zealand from 10.30 approximately onwards. Mr. W. A. Waters, of Palmerston North, who has particularly interested himself in the question, communicated by cable with the station, and has received a postcard from it giving the necessary information. This postcard shows that the station is "RFM," and it is described as a "crystal controlled short-wave radio telegraph and broadcasting station." The wave-length used is 60.12 metres, and it transmits regularly Greenwich mean time from 10 o'clock onwards all days of the week except Wednesday, on which day the transmission is described as not regular. The address of the station is Khabarovsk, Far East, U.S.S.R. Listeners in New Zealand who have heard this station have generally regarded the call sign as being RFN, and Mr. Waters says that he is positive that the announcer says RFN sometimes and sometimes a little later RFM. His suggestion is that the RFN is the broadcast band station and RFM is the 60 metre. Mr. Zotoff, of Bunnythorpe, who formerly lived at Khabarovsk and Vladivostok, and knows the original commercial station RFN, says that Khabarovsk is about 450 miles to 500 miles north of Vladivostok.

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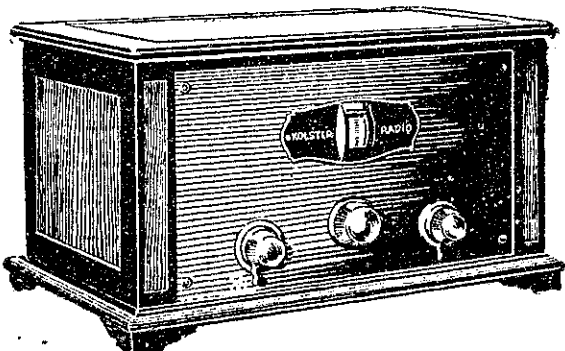
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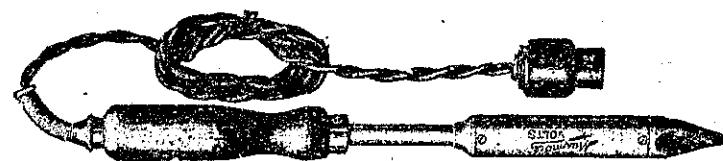
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SHORT-WAVE NOTES

A GOOD WEEK'S WORK

WEDNESDAY MORNING THE BEST.

Mr. F. W. Sellens (Northland), writes:

There has been some more English-American two-way telephony during the week, but not so good as last reported.

On Saturday afternoon, January 21, KDKA were relaying some music from a theatre, but reception was very weak. RFN was heard during the late evening.

KDKA was weak again on Sunday afternoon. 2XAF was also weak just before closing down at 5.30 p.m., when they were just audible on the speaker. 3AU, 3AJ, 4AB, and 2AQ of New Zealand, and RFN were also heard.

On Monday morning from 7 till 9 a.m., 3LO Melbourne, on 32 metre, gave their usual weekly test programme which was excellent speaker strength and very steady. KDKA was weak at 7 a.m., but after 3LO closed down, they were quite good on the speaker. During the evening 2LG, Goulburn, Victoria, and RFN were both well received.

Tuesday—both morning and evening, static was too bad for short-wave listening. I don't think static is heard so often on the short-waves as the broadcast band, but it makes plenty of noise when it does come.

At 5.50 a.m. on Wednesday a violin solo was heard from 5SW, Chelmsford, at good 'phone strength, then, "Hullo, 2XAD, 5SW calling. You are a little bit weak and fading a little. Would you like another gramophone record?" The same record was then played again. This time volume not quite as good. Reception was quite good, except for short jerky modulation. "Hullo 2XAD. That's better now! Alright—another record." Tried 2XAD but could only get the carrier wave fairly weak. At 6.15 a.m. 5SW were giving some figures, but were getting too weak to understand what they were about.

The queried Dutch station on 42 metres was heard again, but modulation still too rough to hear call. ANE on 31.96 metres with 2 of audio was as loud as I get 2YA with crystal, and 1 of audio—some station is ANE. A xylophone item at 6.38 was very good. The station calling "Au Japanese" was also heard call "Alloa—" "Alloa—" different foreign names following each Alloa."

PCJJ started at 6.30 a.m. at weak 'phone strength, and getting weaker as time went on. A morse station spoilt reception. At 7.40 a.m. both PCJJ and 5SW were only just audible.

2XAF were tuned in at 5.59 p.m. broadcasting the St. Buffalo Symphony Orchestra. They asked for request items for next week and the week after. The programme was being broadcast through four stations—WGY, WDL, WHA, and WMHA.

In signing off at 6.40 p.m., the announcer said: "We are signing off for the four stations and wish you good night or good morning, as the case may be." All was clearly heard on the speaker.

2LG, Goulburn and "An Japanese" were heard later on in the evening. On Thursday evening RFN was tuned

in just after 2YA closed down, when some very fine music was heard. On their first harmonic of 30 metres, reception was also very good, but, of course, not so loud.

ANE was again on the air on Friday morning, with their usual gramophone programme and talks. Reports were asked for, to be addressed to "Officer in charge, Radio Service, Bandoeng, Java, Dutch East Indies." The next transmission, it was announced, would be on Saturday, January 28, at 12.40 till 14.40 G.M.T. on 17 metres (early on Sunday morning here).

PCJJ started their test transmission at 6.28 a.m. with the Dutch National Anthem. This, and a next item or two, was fair speaker strength, but interference by morse spoilt reception. Volume gradually decreased, and at 7.30 a.m. the carrier wave only was audible. The same applied to 5SW, Chelmsford. After 2YA closed down on Friday evening, RFN was tuned in and then RCB8, Buenos Ayres was heard talking, fair 'phone strength, but not so clear as he might be. It was only because his call was repeated several times, that I was certain who it was.

I was not up early enough on Saturday to hear much of 5SW. At 6.15 a.m. he was talking, but not strong enough to understand. There was not any sign of 2XAD.

Wednesday morning appears to be the one to get up early for something to hear.

An Inquiry.

G. C. McDiarmid (Hamilton): Your short-wave column every week is very much appreciated. Can any of your readers tell me the identity of this station: I got a foreign station last night, January 20, on about 40 metres. Picked him up first about 10.45 p.m.; giving some speech, and then he announced very slowly, but static was so bad that I couldn't get the call sign, although he repeated the call a good many times. Sounded like 3 - K, and I could get the word radiotelegraphs once or twice.

Half-an-hour Later.

"Worker" (Newtown) writes: "I arrive home about five every evening and miss the afternoon sessions. A number of friends have been talking it over with me, and they all agree that the half-hour at the beginning could be easily placed at the end of the session. Half-past three, I believe, is the conventional time for paying social calls, and so afternoon tea parties would not be in any way disturbed. There may be other difficulties in the way of such an arrangement, but I feel sure that the Broadcast Company, which has always been agreeable to putting into practice any reasonable suggestion, will not entirely ignore this mild proposition."

The Children's Session.

"V.R." (Kilburne) writes: "During tea-time, my children are always interested in their special session, and follow the stories and birthday greetings eagerly. It keeps them quiet, so I have no fault to find with the wireless accompaniment to my meal. But I may say that Auntie Dot and Uncle Jasper, with their light banter and jollity, provide for both adults and children alike. My children's open delight in Uncle Jasper's bogus attempts to repeat Auntie Dot's 'tongue twisters' and their glee when Auntie Dot becomes so cutting is great to see. I wish these two every success, and trust they will continue to carry on in the same way as they have been doing."

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GOOD AERIAL MAIN SECRET

IN FAVOURABLE LOCALITY.

Norman E. Bull (Gisborne).—I notice on many occasions reports sent in by listeners who have picked up an odd American station or so. I thought it may be of interest to readers to know of the results that are obtained by the writer in this district.

Gisborne is well suited to reception and some excellent records have been put up in this district by Mr. Ivan O'Meara on short-wave work.

On the broadcast band overseas reception is also remarkable. The writer lives seventeen miles out in the country away from all interference. The set in use is a single control 6-valve operating on an aerial 12 feet high.

On Sunday, January 1, 1928, the following American stations were picked up from 6.30 p.m. onwards, all on the loudspeaker with volume that could be heard, without exaggeration, 100 yards from the loudspeaker. KFON was heard on that evening a quarter of a mile away. CNRV Vancouver, KFON Long Beach, KEX Portland, Oregon, KGO San Francisco, WBBM Chicago, WJBB Florida, WREN Kansas, KOA Denver, Colorado, KFSD San Diego, KFJY Iowa, KFWB Los Angeles, KFI Los Angeles, KFWM Oakland, KNRC Santa Monica, WDAE Tampa, Florida, KGW Portland, Oregon, KFRC San Francisco, KHQ Spokane, Washington, WBBH Chicago, KNX Los Angeles, KDKA Pittsburgh. (Apparently on high power, for volume was tremendous).

Last evening, as an experiment, Mr. Ivan O'Meara and the writer hooked an 8-valve on the same aerial and earth. KFON was tuned in at 8 p.m. simultaneously on the two machines, using two cones, and the volume obtained was enormous. It was certainly impossible to stand alongside the speakers, and Mr. O'Meara was of the opinion that it would have been possible to clearly hear it over a mile away.

WDAE Tampa, Florida, which one of your correspondents states he heard recently, can be received here practically every evening. On the evening when he was transmitting the "Tom Cat" concert as mentioned by you, we had the same station loud enough to be heard over 100 yards from the speaker. Mr. E. R. Boucher, of Auckland, was present with Mr. O'Meara at the time. On that evening most of the above stations mentioned were picked up and they can vouch for the results obtained.

Last Monday week, with Mr. O'Meara, we tuned in WGY on high power for a quarter of an hour. Many of the stations we have written to for confirmation. Numerous others were heard at different times, all on the speaker, but we have not troubled to note them all, as they are so numerous.

This letter is written mainly to show what can be obtained on a good machine using an efficient aerial away from all interferences. The tubes used are all of the tenth ampere type with 110 volts radio freq. and 135 volts audio plate potential, using wet B batteries. It is not freak reception, for any night when atmospherics are not bad anywhere up to thirty American stations can be received on the loudspeaker with good volume.

Mr. O'Meara's name is proof of the authenticity of these statements, of the strength of the signals received and the number of stations heard.

As a matter of fact, last evening KFON, when broadcasting an organ recital, was probably 25 per cent. louder in volume than any of the New Zealand stations at 7.30 p.m. Modulation was perfect.

The most nerve-racking ordeal one can experience nowadays is when endeavouring to extract musical entertainment from 4QG, Brisbane. This great station was exceptionally popular among New Zealand listeners in by-gone months, but for several weeks past the Brisbane station has sounded like a wild-cat fight.

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SPORTING BROADCAST

We have received a letter from a sporting enthusiast severely blaming the Broadcasting Company for not paying a money consideration to the Wellington Racing Club for permission to broadcast its recent racing meeting. As we understand the position, the question of a money consideration was not the issue in the Club's refusal, but rather the idea that broadcasting affected the Club's business.

We have no desire to thrash this matter which is really a matter for the club itself, but we mention it only to invite consideration on the part of this correspondent of the fact that there are hundreds of racing meetings held in New Zealand throughout the year, and that payment to one would involve payment for the same privilege to all other sports bodies, football clubs, etc., so creating an impossible position, and no fund, however big, could stand the drain. This assumes, too, that the Broadcasting Company is in the position (which is not the case) to pay for the news which the newspapers receive free of charge, and indeed with every facility placed at their disposal for the collection of same. Our whole public atmosphere has been built on the principle that "news" is free, and we can see no reason why a different principle should be introduced in Broadcasting.

Consideration of these points will, we think, show that the Broadcasting Company has taken the only possible stand in offering to broadcast race and sporting results freely where permission is given by the authorities concerned. In the absence of that permission, the Broadcasting Company does not wish to obtrude into a field where it is not wanted, but it stands ready to give the public the service the public desires. By so doing it can render a service greater than any individual newspaper, and it is for the public and the people concerned to say whether that service is desired. The revenue of the Company is amply taxed in providing the distributive broadcasting service and the payment of the artist's employed.

Our Mail Bag

Gramophone Items Appreciated.

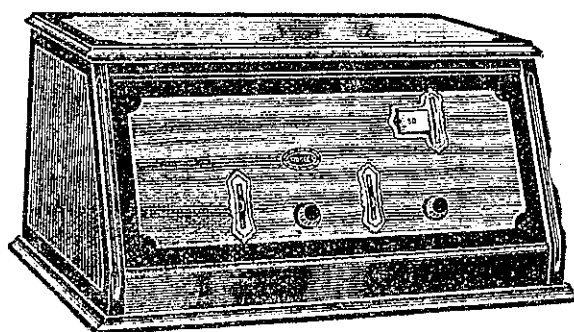
"Tiffin" (Island Bay) writes: "My family and I enjoy the afternoon gramophone sessions from 2YA more than we do most of the evening sessions. The world's best artists and orchestras, after all, are on quite a different plane from that of our own amateurish performers. Most of New Zealand's premier artists leave the country as soon as they can. Without prejudice, I might suggest that just a little more trouble might be given to the choice of the items. Popular numbers are quite all right, but when they are 'popular numbers' of the previous year they are apt to lose much of their interest. For instance, when I hear a new record—a good one—I promptly mail an order for one, but these old 'done-to-death' items prove only irksome to the listeners. I see no reason why records should not find a place in the usual concert sessions—no one can deny that they are quite as clear over the air as the ordinary studio broadcasts. Careful choice, should, however, be given to the same."

No More Sidey Time.

W. N. McNabb (Greymouth) writes: "Radio reception in this district has been vile until 9.30 p.m., and sometimes later than that. If Mr. Sidey was here he might alter his views on daylight saving. The average farmer rises between 4.30 a.m. and 5.30 a.m. What use is radio to him? He has to go to bed early; he can't be up until 10 p.m. every night for his enjoyment. I, for one, will be glad when winter comes for the sake of radio. I certainly don't want 'Sidey time' next year, and I think many country listeners will agree with me."

Wirth's Broadcast Appreciated.

"Molly S." (Wairarapa) writes:—"Last Saturday week my family and myself listened to the Wirths' Circus relay from 2YA, and I can safely say that a more original and entertaining performance has not been broadcast from any other station in Australasia. Up here in the country, miles from any big town, we find it hard to take the kiddies to see these rare pleasures, and now, through the medium of radio and an excellent staff at 2YA, we had the circus in our own house. It's years since I saw one myself, and, though I thoroughly enjoyed both the children's and adults' sessions, my delight was nothing to that of my children. Indeed, Auntie Dot and Uncle Jasper seem to be gifted with the admirable art of seeing life with the eyes of a child. They described the animals and the scene before them so vividly that I was brought back to the sawdust ring of many years ago, and was wandering from cage to cage viewing the animals with them. We are indeed lucky to have such entertainers at our big station."



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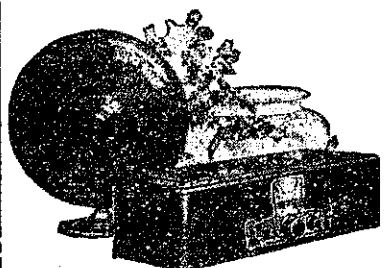
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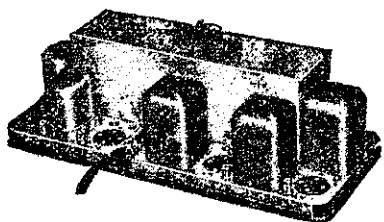


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From the Woman's Point of View.

By VERITY.

TO-DAY AND TO-MORROW

They Say:

That the annual conference of Professional Teachers of Music, held last week in the Training College, Christchurch, was an interesting gathering, very largely attended, the lectures given by talented members of the teaching profession being greatly appreciated. Particularly notable was an arresting address by Professor Shelley, full of fire and expression, with much that stimulated thought concerning art and individuality. It was regrettable that Dr. Galway could not get away from Stewart Island (where he is lecturing to a summer school) in time to attend the conference, Mr. Douglas Taylor also being unable to be there in time, and sending in his paper. Miss Corliss's lecture dealt with the psychology of teaching, and was listened to with keen appreciation, many expressing the wish that it might be preserved in permanent form. Mr. Parker and M. Cachemaille went down from Wellington, and several representatives tooted through from Dunedin by motor in a day. Welcoming speeches were made at the opening of the conference by Mr. Merton (president of the Christchurch branch) and Mr. R. Parker (president of the whole of New Zealand). The evening reception was a singularly pleasant function, being held in the symmetrical Chamber of Commerce Hall, and many well known and interesting people being present. Among the charming frocks were many black ones, while a well-known Wellington musician created a note of brilliant colour in a rose-coloured gown. Mr. Merton again spoke, and there was much music, Madame Gower-Burns contributing several items, a John Ireland duet was welcomed, and Mr. Cox sang charming songs in delightful fashion; his first, "Can This Be Summer?" provoking smiles, as the heat was intense in the hall, while through the open windows came the pleasant rippling and chattering of the Avon hurrying on its way.

Wireless in Schools.

The growth of wireless outfits in schools is a development in educational facilities which cannot be disregarded, says "The Schoolmaster." There are over 1500 "wireless" schools in London, 74 per cent. of which are elementary schools, and in the Midlands and East Midlands, as well as in the North, the weekly lecture by wireless is rapidly extending. The chief subjects dealt with are: Nature study, English literature, and music. Other courses by well-known experts have also been arranged. These are often followed by written work sent up regularly by some of the schools. It is said that the training in listening for at least thirty minutes a week to a reasoned train of thought, and the stimulus to the imagination of the children, have had a re-

FAREWELL

*Tread lightly, she is near,
Under the snow,
Speak gently, she can hear
The daisies grow.
All her bright golden hair
Tarnished with rust,
She that was young and fair
Fallen to dust.
Lily-like, white as snow,
She hardly knew
She was a woman, so
Sweetly she grew.
Peace, peace, she cannot hear
Lyre or sonnet,
All my heart's buried here,
Heap earth upon it.*

WOMAN AND HER HOME

Dainty Dinner Sweet.

Mix one heaped tablespoonful flour smoothly with one beaten egg, three tablespoonfuls sugar, and one gill milk. Boil one gill milk and half-pint strong coffee, and pour into egg gradually while stirring. Pour into double saucepan, and stir till custard thickens. Stir till cold (to avoid skin forming on top); pour into six custard glasses. Garnish with one gill cream, whipped, sweetened. Put half a glace cherry on each, and shake a teaspoonful of blanched, chopped, browned almonds over. Serve with "Casino" finger biscuits.

A Bacon Secret.

To prevent rashers of bacon from shrinking during the process of frying dip them in flour. This prevents the fat from running.

The Vogue of the Candle.

A dining-room table is more attractive, a dinner party more enjoyable lit by those tall, slim "Venetian" candles, now being manufactured in imitation of a form in use two centuries ago. The tall lights are well above the level of the eyes, and they shine without any unpleasant glitter. If you employ lace mats, which leave the best part of a highly-polished table bare, you will observe the flame thrown back in waves of luminous shadow from the bright surface.

Colour Scheme Enhanced.

Or, again, take a room in the Jacobean style, furnished and panelled in oak relieved by richly coloured silks or velvet, and with heavy cases of books round the walls. Suitable "period" candles, with the appropriate candlesticks, will then provide a setting entirely in harmony with the scheme of decoration.

In choosing your candles, you must bear in mind the prevailing colour-scheme. If there is much china, remember that its beauty will be enhanced by a candle that repeats the prevailing colour. Brass sticks require something bright—blue or red—while silver will take something of a more neutral tint—brown or violet—and pewter will often look best with a very bright scarlet or blue candle.

A New Vogue.

But the number and variety which can be obtained are almost without limit.

Candles are made to suit all tastes, and almost any fancy can be satisfied.

That the Queen appreciates the candle was shown on her recent visit to the Arts and Handicrafts Exhibition at the Central Hall, Westminster. Her Majesty then purchased a flat candlestick, hand-decorated by Miss

The Letters of Annabel Lee

My Dear Elisabeth,

One hears that beauty is out, and chic is the thing to beg, borrow or achieve at any cost. Yet we go worshipping at the old shrine, its call is as strong as ever it was. The brilliant author of "Jew Suss" has written a romance exemplifying the havoc wrought through the lack of it in the life of "The Ugly Duchess," a masterly and terrible presentment of Court life in Germany in the Fourteenth Century, in which are piled horror upon horror and a wealth of realism that makes the flesh creep.

Lion Feuchtwanger, the terrifying name of the author of this bewildering and enthralling novel, is being entertained in England by the socially Good and Great, all the mondaines who count for anything hastening to do him honour. Talking of smart entertainments, at the moment the cult is revived of the astrologer, the soothsayer, who, tucked away in some alcove of mystery, persuades willing credulity that he can "rede in the starres, clearer than in a glasse" the ups and downs of destiny.

Those clever and exasperating members of the English intelligentsia, the Sitwells, have written a play and act in it themselves, their joint effort producing an entirely different effect from that contemplated by the lofty authors, and aptly epitomised by a well-known critic:

*There were two bright brothers called Sitwell,
Of whom it was said that they writ well;
They concocted a play which made us cry, "Nay!"
They don't seem to do this a bit well!*

It is pleasant to hear of an exhibition of the historic art of embroidery given by clever Miss Constable in London. Her work, one is told, is of exquisite harmony and charm, with an acute perception of colour effect and a brilliant manipulation of her restricted materials. The genius that consists of an infinite capacity for taking pains is hers in a high degree, and the magic of her art has aroused tremendous interest and created a vogue for this most feminine of pastimes. In New Zealand I know one girl of sixteen or so, gifted with great artistic ability and that concentration essential for the work, who has achieved some quite delightful pictures of her own embroidering on a silken surface, with a splash here and

there of faint-toned water-colour, choosing for her subjects those quaint and beguiling cottages, with gardens of hollyhocks and sweetwilliams, that one associates with Dorsetshire.

After long slighting, hearts are again the fashion and very much to the fore. In fact, we wear them on our sleeves. I do not speak of the emotional organ that disappeared with Edward and Alexandra, but of heart-shaped signs and tokens of various sorts and sizes, sewn on an unexpected corner of a gown or decorously decking a dancing shoe. The good old chignon, too, is back again for the coiffure of evening. It is used to bridge the gap between the severe Eton crop (too tragically severe in some cases, causing one to ponder why the display of her ears should give some excellent women a suggestion of the criminal) and the Victorian tresses in which once we took a simple pride. What a delightful word, by the way, is chignon; as satisfying as Mesopotamia, and not so hard to spell.

Elsie, who has seen much of men and manners in England and abroad, and whose decided opinions are surprisingly at variance with her flowerlike face and gentle contours, does not think us hospitable! The vaunted New Zealand open-hearted generosity to strangers and pilgrims is to her a myth; or, if it ever existed, is now as extinct as the moa. So she says and thinks. Kind, kind and gentle are we to all and sundry, so we plume ourselves, as I explained to her carefully. It would seem, however, that a reputation, once made, is not always lived up to; and Elsie has been struck by the absence of those warm hearts and open doors, of which she has heard so often; finding much of the entertaining of a quite perfunctory nature, with a searching eye on the main chance—one good dinner deserves another, so to speak! The thought has sometimes suggested itself, one must admit, that the tale that is told of the rollicking hospitality of New Zealand people is a little exaggerated, like the story of Mark Twain's decease; especially when one hears of such spontaneous and unquestioning hospitality in many stately homes of England extended to wanderers from our faraway islands, some of them students with shallow purses and by no means shining stars in the social constellation. So we must look to our laurels.

I SHALL BE GLAD

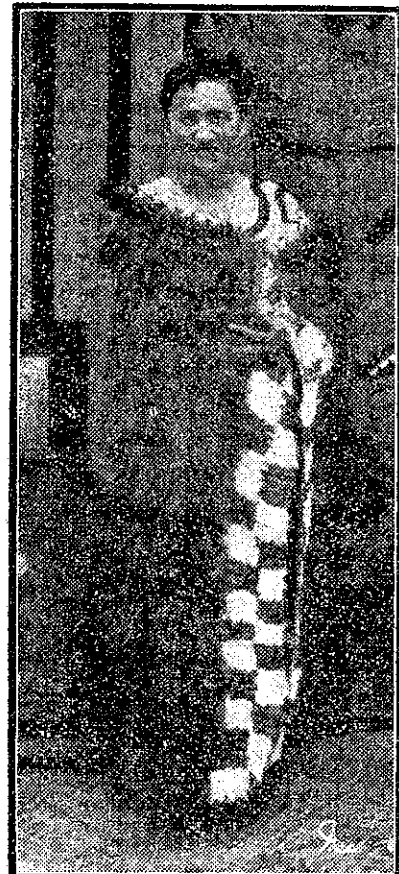
*If I should never see your face again,
Or feel your warm, strong hand
enclose my own,
Or watch the blessed shining of
your eyes,
Or hear the soft, deep richness of
your tone—
I shall be glad for having known you
once;
I shall thank God for giving such
as you
To make this sad old world a
sweeter place
In which to pray and love and
dream and do.*

Jeanne D'Arcy.

Turkish Delight.

Boil one pound of white sugar in a pan with one gill of water. When slightly cool, add 1oz. of dissolved sheet gelatine, and boil for twenty minutes. Add the juice of an orange and some finely chopped lemon and orange peel. Allow to stand near heat for ten minutes, then strain into a flat tin rinsed in cold water. Leave for twenty-four hours, and turn out, cut into squares and roll in icing sugar.

FOR SALE—Two-oven type "Rapid" Electric Wireless Cooker, in first-class order, as new; complete with all utensils; will bake, roast, stew, etc., as any range, but uses only half electricity. No special wiring; can use on iron or heater point. Ideal for country household. £12. Write to "Advertiser," 130 Tuam St., Christchurch.



KA WINIATA.

Denton, Photo.

"The Eternal Quest."

The desire to be beautiful is older and stronger than the desire to be either modest or comfortable. Witness Eve, and her lovely elder sister Lilith. Lilith and her beauty is a legend we would not be without; she is the glowing mystery that lies at the back of the beginning of the race. Lilith without beauty would be life without meaning, stars without light. Eve, we feel, must have been beautiful or that lovely lost garden "east of the Sun and west of the Moon" would not have evolved her as its crowning glory. Envious, creeping wisdom gliding along the apple branch to drive out Beauty, so that men might care only for knowledge, would not otherwise have found her worthy of his hate.

The Beauty of Woman.

Beauty is the shimmering high answer to the deep hunger of mortals. Beauty of living, beauty that is mystery and poetry and faith, beauty of line and colour. And like a garden is the beauty of woman. Tended, it sings with glory; one catches one's breath at the sight of it, one becomes a poet and life a poem. Neglected, weeds creep in and the garden is no longer a romance and a delight, and one grieves over it—that a rose should have a weed choking out its beauty.

To take a woman who has not been awake to her possibilities of beauty, and make of her a lovely, glowing creature, aware of herself, is not just cultivating the beauty of that woman, it is changing her whole life. Beauty is power. It opens doors that nothing else can open. It lets one out of the prison that shyness, awkwardness, self-consciousness build about one. It opens locked doors into romance, love, depth of living.

—Miss Buccleuch, 4YA.



MAKUINI TAMIKANA.

Denton, Photo.

Ruth Bannister, and a Venetian candle. A new vogue has sprung up in Christmas gifts—a box of candles. Inexpensive, very pleasing, really useful.

A Cleaning Ball.

A cleaning ball which may easily be made at home and will be found most useful for cleaning cloth and renovating clothes in general is made as follows: Mix together 1oz. powdered French chalk and 5oz. powdered pipe-clay, and add to it 2oz. spirits of wine. Form this into a paste and leave it to get hard. When required for use, moisten the article with warm water and rub it well with the ball.

Lapin a la Bourgeoise.

Put the rabbit (whole), with three large onions, into a baking dish half full of boiling water. Let it simmer for 20 minutes. Then remove rabbit and onions, pour off the liquor, wipe the tin, and put it into the oven with some good dripping. Whilst this is heating, make slits in the rabbit's back and insert small pieces of bacon. Replace it, with the onions, in the tin, and cook for 20 minutes in hot oven, basting frequently. Serve liquor, browned and thickened, separately as sauce. This makes a tasty and digestible dish.

Read Flowers.

Modern, distinctive, and decidedly ornamental are the newest bead flowers. Fine pliable flower wire and flat-sided satin beads are necessary if the flower is to have a professional look.

The actual method of making is just the same as the one our grandmothers employed, but the effect is far prettier. Raffia, tinfoil or silk go to cover the wire stems.

Programmes Continued

8.47: Instrumental—Bosworth-Hemus-Towsey Trio, "Trio, Op. 56—Finale" (Reissiger).

8.57: Soprano solo—Miss Adelaide Taylor, "For Every Day."

9.1: Vocal quartet—St. Andrew's Quartet, "O, Gladsome Light" (Sullivan).

2YA WELLINGTON (333 METRES)—SUNDAY, FEBRUARY 12.

6 p.m.: Children's service, conducted by Uncle Ernest.

6.55: Relay of evening service from Vivian Street Baptist Church. Preacher, Rev. F. E. Harry; organist, Mr. Chas. Collins; musical director, Mr. A. R. Don.

8.30 (approx.): Studio concert.

Contralto solo—Miss Jeanette Coster, "Cast Thy Burden" (Hamlin).

Instrumental quartet—Symons-Ellwood String Quartet, "Len'o from Quartet in F Major" (Dvorak).

Vocal quartet—The Ariel Singers, "This World Is All a Fleeting Show" (Waley).

Instrumental quartet—"Scherzo from Quartet in F Major" (Dvorak).

Tenor solo—Mr. Roy Hill, "In Native Worth" from "The Creation" (Haydn).

Cello solo with string accompaniment—Mr. Geo. Ellwood, "Russian Song" (Lalo).

Soprano solo—Miss Jeanette Briggs, "On Mighty Pens" from "The Creation" (Haydn).

Pianoforte solo—Mr. Frank Crowther, "The Rosary" (Mr. Crowther's own arrangement) (Nevin).

Bass solo—Mr. J. M. Caldwell, "To-morrow" (Keel).

Instrumental quartet—Symons-Ellwood String Quartet, "Marche Militaire" (Schubert).

Vocal quartet—Ariel Singers, "Lead, Kindly Light" (Sullivan).

3YA CHRISTCHURCH (306 METRES)—SUNDAY, FEBRUARY 12.

5.45 p.m.: Children's song service from 3YA Studio by Uncle Sam, assisted by scholars from St. Andrew's Presbyterian Sunday School.

7.0: Relay of evening service from St. Luke's Church of England. Preacher, Venerable Archdeacon F. N. Taylor; organist and choirmaster, Mr. G. E. Lomas.

The following after-service concert will be given from 3YA Studio:—

Cello solo—Mr. Harold Beck, "L'Agreable" (Marias).

Tenor solo—Mr. P. Angus, "The Village Blacksmith" (Weiss).

Instrumental trio—Christchurch Broadcasting Trio, "Russian Waltz, Hornpipe, and March Militaire" (Bridge).

Contralto solo—Mrs. D. W. Stallard, "Hold Thou My Hand" (Briggs).

Cello solo—Mr. Harold Beck, "Melody in F" (Rubenstein, arr. Beck).

Tenor solo—Mr. P. Angus, "Love's Coronation" (Aylward).

Instrumental trio—Christchurch Broadcasting Trio, (a) "Cantabile" (Widor); (b) "Hungarian Dance in G Minor" (Brahms).

Contralto solo—Mrs. D. W. Stallard, "Nearer, My God to Thee" (Carey).

God Save the King.

4YA DUNEDIN (403 METRES)—SUNDAY, FEBRUARY 12.

5.45 p.m.: Children's song service—Big Brother Bill and children's choir.

7.0: Relay of evening service from Hanover Street Baptist Church. Preacher, Rev. E. S. Tuckwell; choirmaster, Mr. H. P. Desmoulin.

8.15: Studio concert.

9.15: Close down.

Features Continued

4YA NOTES

The service from the St. Andrew's Street Church of Christ will be relayed on Sunday evening. The preacher will be Pastor W. D. More, who will deal further with questions submitted by listeners recently.

After the church service on Sunday evening, if the weather be fine, the concert by the St. Kilda Band will be broadcast.

During the afternoon session on Tuesday an address on "Fashions" will be delivered by a representative of the D.I.C., and a representative of Turnbull and Jones, Ltd., will discourse on the "Domestic Uses of Electricity."

At 7.30 p.m. on Tuesday Mr. W. B. Steel, secretary of the Otago Expansion League, will give another talk on the Otago province.

A really first-class programme has been arranged by the St. Kilda Band for Tuesday evening's concert. A selection from Wagner's beautiful "Parsifal" will be among the larger works. Several popular artists will assist with solo items, including Mr. Charles Rowland, an English comedian who has had considerable experience in the Old Country.

The programme at 4YA on Thursday evening will be provided by some foremost artists, who have not been heard recently. Miss Dorothy Skinner, a contralto with a wonderful voice, will sing some well-known songs. Miss Agnes Guy, one of Dunedin's leading mezzo-sopranos, will be heard in some modern compositions. Mr. F. C. Cooper, well-known vocal teacher, and possessor of a fine rich bass voice, will render "The Riderless Steed" and other songs. Mr. L. M. Cachemaille, a popular baritone from Wellington, with a most pleasant voice and execution, will present a group of classical songs. Miss Marjorie Watts, a clever young pianiste, will play Liszt's "Liebestraum No. 3," and other works, at the concert on Thursday, and Mr. Malcolm Robilliard will contribute several cello solos.

Pastor W. D. More is down for another humorous address on Thursday evening.

The programme for Friday night will include leading artists. Miss Maisie Macdonald, P.T.C.I., one of the most brilliant pianistes in Otago, will be heard, along with some notable vocalists.

Saturday's concert will be a rare treat of good artists and good music. Miss Edith Morrison (a most charming soprano), Miss Molly Vickers (one of Dunedin's leading mezzo-sopranos), will provide high-class songs. Mr. Dan Fogarty, Dunedin's Irish tenor, will present a group of Irish numbers.

Mr. Percy James, probably the most popular comedian in the southern city, will entertain with some really funny numbers on Saturday. Miss Eva Judd (violiniste), Miss Muriel Caddie (pianiste), and Mr. George Christie (cornetist), will contribute the instrumental items on the programme.

Our Mail Bag

Comedy Appreciated.

Listener (Petone).—Through your valuable paper I should like to congratulate Mr. Skedden and his partner on their breaking away from the classics. Their number, "The Orderly Room," must have been enjoyed by hundreds of listeners. I can assure you that the classics are getting very monotonous night after night, with no comedy to relieve it. I should be glad to know what has happened to Mr. Billie Hart. We have not heard him for some months now. His were very popular items, and thoroughly enjoyed. Trusting that the company will arrange some more lighter items. [Mr. Hart is again available, and will appear next week.]

Sidey Time Not a Success.

P. Purrell (Matamui). Daylight saving is not a success here. We miss quite half of the programmes from both 1YA and 2YA, as the reception is not good much before 9 o'clock on an average evening, and with regard to news items from these two stations, I cannot get them even on the headphones, except on very favourable occasions. 3YA is quite good usually at 8 o'clock on the speaker, and on favourable evenings the news session comes through on speaker strength. I must say I think your "Radio Record" is a great help to us country listeners, and I would not be without my copy now if it cost double the amount.

Objections Beyond Expression.

Radio (Picton). In regard to "Sidey time," time won't permit of a full account of my objections to the idea, neither would my purse stand the strain in meeting the cost for notepaper. Suffice it to say that I agree with everything said against the daylight saving scheme, and then a whole lot more on top of it. I can't adequately express myself otherwise. Many thanks for the very fine music over the air, but when are you going to cut out the silent night for 2YA?

The Children's Corner

By "ARIEL"

Dear Radio Boys and Girls,

Here we are with the holidays nearly at an end and school time getting very near. No doubt all of you are looking forward to beginning work again in real earnest, and some of you will be going away to school for the first time. How frightfully important you will feel when you leave home with your trunks well labelled and your belongings all bearing your very own name, sewn on well and truly by mother, and some of your most precious possessions tucked into the odd corners.

But how small and unimportant you will feel at the other end! Everybody but yourself seems to have been there years and years, and many will be the cold and calculating glances directed your way. But, thank goodness, the "new" feeling doesn't last long, and in a day or two everything loses its strangeness.

I always found the first few days at school after the holidays much more thrilling than all the rest of the weeks put together. There were pals to greet, and friendships to renew, confidences to exchange, and adventures to relate (often in long and noisy whispers!); new books and pens and clean blotting paper and everything feeling like a birthday.

Little brothers and sisters left at home have a thin time for a bit and miss you frightfully. I once knew a small girl who had a perfectly hectic time all the holidays. Her brothers bullied and teased her—shut her up in dark cupboards, made her climb trees for the fun of shaking her down; pulled her hair and subjected her precious dolls to all sort of indignities, yet she always did a quiet little weep to herself in a secluded corner after her tormentors had gone back to school.

Anyway, here's the best of luck to every one of you.—Yours,
ARIEL.



"ROSE MARIE."

Miss Harriet Bennet, "Rose Marie," will entertain the children at 3YA when the "Rose Marie" Coy. visits Christchurch.

A HIDDEN PROVERB

In each of the following sentences a word is hidden, but the letters are in their right order. Find each word and put them together to make a well known proverb:—

1. A naughty cat ran away.
2. They found a closely-written roll in gathering up the rubbish.
3. It is the best one I have ever seen.
4. The rug at her stairway is not a valuable one.
5. He is an old acquaintance of mine.
6. Amos soon saw through the stratagem.

Just to help you a little, I will tell you that No. 6 word is "moss"—the last three letters of "Amos" and the first letter of "soon." Now, I think you'll be able to find the rest.

A little girl was sent to school for the first time. When she returned she was asked by her family all about it. "I was the prettiest child there," she replied. "Who said so?" asked her mother. "Well," she said, "I was there. I could see the others."

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"DO YOU KNOW?"

1YA GENERAL KNOWLEDGE COMPETITIONS

The "Do you know?" general knowledge competition, the first of a series at 1YA, Auckland, closed on Saturday, January 21, and was a very great success. Hundreds of children from all parts of the North Island and some from the South Island competed, and many of the papers sent in were exceedingly good. The following were the questions:—

- (1) Who is Ethel Turner?
- (2) Who was the father of King George V?
- (3) In what play did Shylock appear?
- (4) What is the highest mountain in the world?
- (5) Who wrote "The Quality of Mercy"?
- (6) Who was Sir George Grey?
- (7) In what book does man Friday appear?
- (8) Who is the Minister of Education?
- (9) What is the height of Mt. Cook?
- (10) Which is the largest lake in New Zealand?
- (11) Which was the first capital of New Zealand?
- (12) What part of New Zealand is called "Wonderland"?

The winner of the competition was Josie Travers, of Te Kauhata, Waikato, who receives a beautiful book as her prize, and the runner-up was Selma Burrows, of Hobsonville, Auckland. The decision was announced by "Genial Jimmy" from 1YA on Saturday afternoon, the 21st instant, and he highly praised the work of these two girls, but also a number of others for excellent writing, and for specially good papers. He also advised the children in future contests to:—

- (1) Put their name and address at top left-hand corner of their paper.
 - (2) Write on one side of the paper only.
 - (3) Write in ink, if possible.
 - (4) Make the answers brief, while at the same time giving as much information as possible.
 - (5) Always be as neat as possible in their writing, and not to use torn, ragged pieces of paper.
- Other children's competitions are now going on, and later there will be another "Do you know?" paper.

CHILDREN'S HOUR AT 2YA

On Monday, February 6, a jolly evening will be spent with "Peter and Paul." They are novel and entertaining. "Peter and Paul" are well supported by a company of young artists.

On Tuesday the session is dealt with by Uncle Jasper. There will be fun and frolic for young and old. All little friends will join in the happy hour.

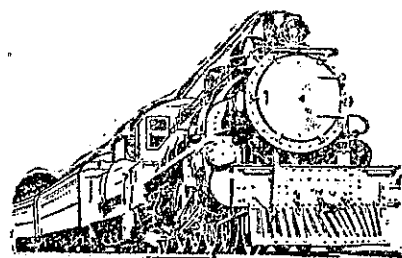
Haremail! Haremail! Uncle Sandy's hour on Thursday! Uncle Sandy rhymes by the hour—all for the little ones. There are little people, too, who will give him their help on Thursday. On Friday Uncle Ernest will have amusing incidents and stories to tell you. He also has a merry little army of entertainers under his command.

On Saturday Aunt Dot and Aunt Gwen will provide the fun. They will have something interesting and new tucked away secretly till that date.

UNCLE SAM'S BIRTHDAY

On Saturday afternoon, January 14, Uncle Sam, of 3YA, in full regalia—goatee beard, chimney-pot hat, claw-hammer coat, striped pants, and the inevitable cigar, but with a New Zealand flag in hatband and buttonhole—presented some six hundred prizes at the annual children's picnic of Washington (Men's) and Naioni (Women's) Oddfellows Lodges, held at the beautiful Addington Trotting Grounds, Christchurch. Nearly £10 worth of toys were disposed of, those remaining over after the picnic being sent to children absent through sickness. Uncle Sam was motored to the grounds by Mr. W. H. Simmons, secretary of the Men's Lodge, and was assisted in the prize distribution by Mrs. W. H. Simmons, secretary of the Women's Lodge. A triumphal entry to the grounds was made with the assistance of three Scottish pipers. The weather was fine, and Uncle Sam's nieces and nephews spent a happy day. Incidentally, it was Uncle Sam's birthday, and he thoroughly enjoyed his little party.

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The Nature and Origin of Static

What is the Real Remedy for this Radio Trouble?

By "M. R.E."

ONE of the most interesting subjects to the set owner is the question of the nature and origin of "static" and the possibility of eliminating it, or, at least, overcoming it to such an extent as to render it less harmless than it is at present, especially to those who have a hankering after distant stations.

The word "static" has now been more or less accepted, but in the days before broadcasting was introduced these parasitic noises were labelled also by the description of "atmospherics" and "X's," and the former of these two words seems to fit the bill more descriptively than "static" or "X's," because "X's" refers to "X," or an unknown quantity, and a good deal is known to-day concerning this type of interference. "Static" is short for "static discharge," and as the electrical discharge in question takes place in the atmosphere mainly, the origin of "atmospherics" is seen also.

However, "static" appears to have come to stay.

WHAT IS STATIC?

Static is as natural as the wind or the clouds. Clouds are formed through the concentration of moisture, due to different temperatures existing in the atmosphere. So are winds.

Whenever different temperatures exist in the atmosphere, or between layers of the atmosphere and the earth, electrical potentials are set up, which are discharging continuously, and serve to disturb the ether, thus setting up ether, or wireless, waves, to be cursed vigorously by all those listeners who are attempting anything in the nature of distant reception. Sometimes the electrical discharges grow so heavy that when they collapse quickly they do so with such visible violence as to be called lightning.

LOCAL DISCHARGES.

Static may appear very definitely when there is a blue sky. Often in the tropics, for instance, on a beautifully clear day, with apparently no wind, and the sea like glass, the aerial starts to rain sparks, and will continue to do so for twenty minutes or more. Sparks up to half an inch or more can be drawn off to earth. A ship running into a sudden squall or into sleet will always experience a long-drawn-out hiss, due to a discharge from the low-hung cloud representing the squall, and the earth. This hiss will invariably paralyse the receiver for several minutes.

Such discharges are local, of course, but they go to show the presence of energy, which, if discharged suddenly, would set up disturbances capable of affecting radio receivers many miles away.

On wavelengths above ten thousand metres static has been studied for years because it had to be overcome in order to carry on successful inter-continental telegraph services. It can be said to have been eliminated for telegraphic (not telephonic) purposes for wavelengths of this order upwards.

RESULT OF RESEARCH.

As a result of lengthy experiments carried on between England and Australia between 1918 and 1922, the static interference factor was so successfully coped with that it was decided to lay down a direct telegraphic radio service between these two countries on 30,000 metres. It was found that on this order of wavelength fading was of little consideration, and providing the static could be held in check the success of the service would be assured. The intense research carried out during these experiments, as well as, of course, the activities of engineers and physicists of other lands at that time, led to much information being made available, and a system of reception developed which

was capable of ensuring success. The England-Australia scheme was going into execution in 1923 when the "beam" system was developed, and this service is now operating on 25 metres wavelength.

However, the study of static on long wavelengths has enabled a lot to be learned, and although other factors enter into the problem on the broadcast wave band (220 to 550 metres), many of the effects still apply.

DEFINITE DIRECTION OF ARRIVAL.

Static arrives in the form of waves, just as do signals. This means consequently that both have a definite direction of arrival and therein lies the foundation of all successful methods of combat. If an aerial having a very definite directional effect is used and pointed in the direction of arrival of the signal it will respond to it, but will be oblivious to static arriving from a direction to which the aerial is unresponsive.

RESPONSIVE AERIALS.

As has been discussed in the last two issues of this column, aerials will show directional properties if they are of an L type and the flat-top portion is long compared to the down-leads. The Reveridge aerial used in the United States for trans-Atlantic reception is over ten miles long and 30 feet high, and is used on wavelengths of the order of 14,000 metres. Such an aerial is sharply responsive to signals arriving from the ends of the down-leads, and is scarcely responsive at all to signals arriving from elsewhere. Thus signals from Europe come in at the front door and static arriving from the west (which is the direction of prevailing static on the eastern seaboard of the United States) finds the back-door shut. So far as the receiver is concerned, therefore, on an ordinary aerial, the static from the west and the signals from the east would mix, and if of equal strength would leave little chance of steady and reliable reception. By making the aerial, say, ten times more selective towards the east than the west means a ratio of signal to static of ten to one, and therefore an easy proposition to receive the signals.

Naturally many means have been developed for taking advantage of this directional effect, and loop-aerials have been principally employed, especially in combination with aerials of orthodox design in order to get signal strengths of reasonable measure. Very definite directional effects are now being obtained for the purpose of navigation, such as steering ships in fogs, and these same principles are being employed by other engineers who are developing systems of concentration of signals to the discomfiture of brother static.

On wave-lengths above 10,000 metres the direction of static can be measured and its intensity recorded according to the hour of the day and the season of the year.

STATIC AT ITS WORST.

Static is at its worst at 3 p.m. and is at its worst when 3 p.m. is occurring over high land such as mountains. It will be appreciated that 3 p.m. is revolving round the earth. When 3 p.m. is over the sea, static is at its minimum. The worst time for static is when 3 p.m. is over the Andes mountains in South America. Naturally, the waves due to these static discharges travel strongest through the darkness following the 3 p.m. position, so that static is invariably from the west for twelve hours of the day, while at the position corresponding to 3 a.m. (i.e. at the Antipodes of 3 p.m.). The static will be coming round the earth both ways and will be east and west, but strongest towards the dark side of the globe, as the waves naturally travel with less resistance this way.

This effect can be checked up on a long wave direction finder at any time, and it will be found uncanny to note that it will infallibly point via the route of maximum darkness to 3 p.m., when the direction of maximum noise is arrived at. Actually 3 p.m. might be occurring 10,000 miles away!

Something of this nature occurs on short-waves of the order employed for broadcast purposes, but it is certain that the waves do not travel from such long distances, although static generated in mid-Atlantic on 600 metres has been recorded simultaneously in England and Canada. The reason that static becomes so much more troublesome at night than day is because, like man-made wireless waves, the distance traversed by waves is much greater due to absence of the sun. The static has less definitely defined directions of arrival with shorter waves, but will invariably be found to come off high land or else from the direction of the tropics.

RE-RADIATION FACTOR.

As the wave-lengths become shorter also, the re-radiation factor becomes very apparent. Thus signals from the east and static from the west cannot be efficiently separated because trees or buildings to the east of the receiver pick up the static energy and re-radiate it, thus causing re-radiated waves to come back from the east and mix with the signals.

On very short wavelengths (20 to 100 metres) such as are being used for

long-distance signalling at present, it is practically impossible to get directional effects except when the receiver and aerial system are erected in an absolutely bare, open space many acres in extent, and quite devoid of mineral deposits or even stunted vegetation. This is all due to this re-radiation effect.

THE REAL CURE.

It will thus be seen that for broadcast purposes it is desirable to have a directional receiving effect and a loop is the simplest design, but it can only be used effectively where there are no surrounding objects to allow it to pick up re-radiated effects.

The real cure which is employed to an extreme degree in England is the laying down of many medium-sized broadcast stations in order to so flood the ether with signals that the signals always predominate, or in other words, the signal to static ratio is well in favour of the signal. Naturally, the running of many stations means high costs and the income to run such a system is available in England owing to the population. Undoubtedly the broadcasting service in New Zealand will include the running of relay stations just as soon as funds permit.

People coming from England to New Zealand are frequently heard to remark that there is no static in England. If English listeners listened to Moscow or Rome like New Zealanders do to Sydney and Melbourne they would have to put in multi-valve receivers and discover that brother static is just as full of pep there as here. Listeners with small sets close-by our New Zealand stations have probably never heard static! Sounds incredible but it is a fact. The signals from the near-by stations flood the receivers and any static interference would be negligible and probably unrecognised by the uninitiated.

MORE NEW VALVES

FURTHER DISCOVERIES.

One of the interesting features of recent wireless development is the manner in which apparatus first designed for wireless reception or transmission has been transformed and adapted to other purposes. One of the most familiar of such cases is the development of the public address system from the wireless amplifier and loudspeaker. Two most valuable new instruments have recently been perfected by a big American company, as a result of investigations to improve wireless valves. Both have been the result of an accidental discovery that the electrical characteristics of certain valves under test varied from day to day. Further observations showed that the behaviour of the valves varied according to whether the weather was bright or dull.

AN INTERESTING DEVICE.

The outcome was the production of an interesting electrical device, which will allow a current to pass through it only if it is exposed to light. This device has many applications in general electrical engineering, and it is likely, moreover, to be of considerable value in television. From the development of this device arose another of equal importance. This is an instrument resembling a wireless valve in appearance, but lacking the heated filament. It is used as a control unit for many kinds of electrical equipment, and its most interesting feature is the fact that it can be controlled by an amount of energy equal to only one one hundred millionth part of the energy that is subject to the control; that is to say, one unit of energy impressed on it will cause it to start or stop the flow of an electric current equal to 100,000,000 similar energy units.

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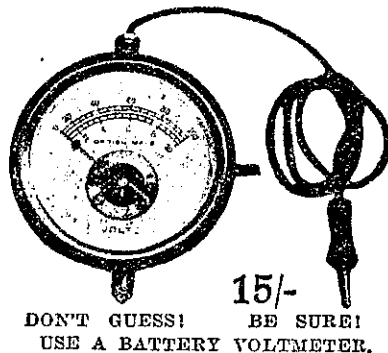
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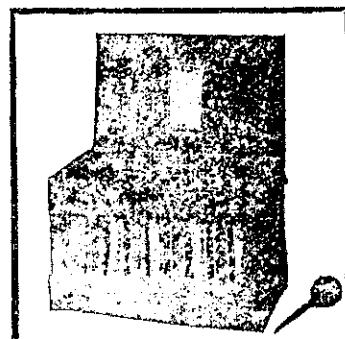
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