

PUBLISHED WEEKLY

THE RADIO RECORD

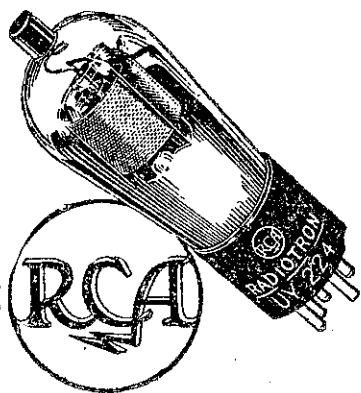
AND
ELECTRIC HOME JOURNAL

Vol. IV., No. 18.

WELLINGTON, FRIDAY, NOVEMBER 14, 1930.

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Markedly Devoid of Initiative

asserts

EDGAR H. FELIX

in summing up American Programmes
for 1930



THIS is the season for *premieres* on American broadcasting networks, when the programme originators bring forth their new wares to tempt the broadcast listener. In recent years, the months of September and October mean the launching of new features and the presentation of novel and original programme ideas. Great names are added to the list of radio stars, and new heroes and heroines for continuity skits and musical features make their bow.

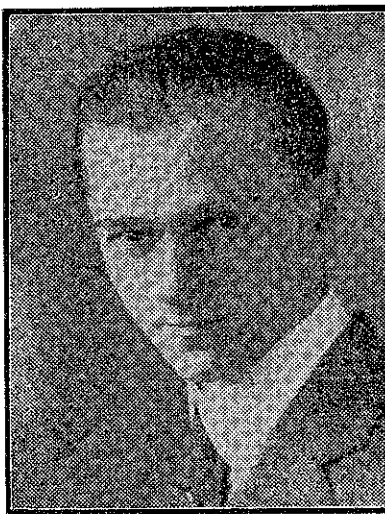
But 1930 has been markedly devoid of initiative. Nothing has rocked the radio firmament since the appearance of Amos n'Andy on the national network over a year ago. The casual analyst might ascribe this dearth of attention-winning events to business depression, but there has been little depression in the newest of mediums for reaching the public. Broadcasting revenues have surpassed last year in almost every report issued. I attribute the situation to lack of new blood in the field of programme development. Staffs have largely stabilised, and the few newcomers who appear become part of a machine-like routine.

THIS is not an unusual situation in creative arts. But no entertainment enterprise can thrive permanently on an established diet. We have had retrenchment, not in revenue, but in creative power. The public accepts the situation with a shrug; to them radio has merely lost its novelty. It is that feature of the listener attitude that contributes to the general lethargy.

In the field of receiver and transmitter development, however, commercial ambition has produced marked changes and improvements. The trend to greater selectivity is expressed by the appearance of an increasing number of low-priced super-heterodynes. One popular brand uses but a single stage of intermediate amplification, and justifies this relatively scant employment of the capacities of that circuit solely by the added selectivity gained. The Radio Corporation of America not long ago released to all of its licensees the rights to that circuit, which it had heretofore retained solely to its own use. The continued trend toward higher and higher power is making greater selectivity than can be gained with

tuned radio frequency receivers a service requirement.

Remote control tuning has been mechanically and electrically improved to the point that it is now a reliable and rugged device. But cost still restricts it to expensive receivers, although I believe it will ultimately become universally used. Tone controls, consisting



MR. EDGAR H. FELIX.

usually of a variable resistor and a series capacity in parallel with the primary of the first audio transformer secondary, are being featured in advertising, although there is still lively debate as to the value of such distorting devices. Accentuation of the lower frequencies is attained by passing the higher frequencies, an expedient obviously of a distorting character. The search for something new has not been constructively directed, at least in my opinion, by a development which is obviously intended to produce advertising copy. It has been noted that the average user, knowing nothing of the nature of sound and the contribution of the higher frequencies to clarity and fidelity, tends to adjust his receiver so as to produce the maximum of distortion.

ONE result, however, has been attained beyond question by all of these developments in receiving and transmitting equipment, such as high gain receivers, increased transmitting power, high percentage modulation, and means for reducing high fre-

quency response. It is the definite establishment of radio as an all-year service. This means increased listener support, and in that way justification of the extra cost of rendering that brand of service. The benefits resulting from all-year service have been of a widespread character.

Mr. Edgar H. Felix, the American consultant of the N.Z. Broadcasting Company, in this article reviews radio events during the last month. He looks upon radio from both the entertainment and technical points of view, and his conclusions are of vital importance to New Zealanders, as the trend of radio is thereby indicated. Mr. Felix is a prominent engineer, and his observations are particularly accurate. He finds that radio has to a great measure become stabilised, though the release of certain patents has introduced a difference in the design of radio receivers. Some of the new "selling" devices Mr. Felix condemns as merely introducing distortion.

A SLOWLY-SHAPING development is the availability of specially recorded broadcasting features, distributed to stations in the form of electrical transcriptions. This term is used to distinguish such recordings from ordinary commercial phonograph records. Although there have been numerous attempts to enter this field by many companies, so far the results have been meagre and unsatisfactory, except in the case of areas remote from population centres and from stations distributing network programmes. Here the improvement over local talent is so marked that the electrical transcription is hailed as a boon to better programme standards. But since the distribution of such features is limited to secondary stations remote from major population centres, the talent offered is, in general, of a standard substantially below that employed for making ordinary phonograph records for use on home phonographs. The fact that major station managements do not look upon the specially recorded electrical transcription with favour is retarding the day that superior features can be procured in recorded form. Obviously, that day means the availability of high quality programmes everywhere, and a decided benefit to countries like New Zealand, which are limited by their population and relative remoteness in their choice of talent.

The outstanding programme event of the month of September was the broadcasting of the America Cup races off the coast of Rhode Island. I hope that short-wave listeners had the opportunity to hear some of the descriptions of this series of events directly from the United States. Yacht racing did not prove an ideal subject for the announcer. It lacks the rapid fire action of football or polo. But this inherent deficiency in the races as a broadcasting subject was overlooked in view of the exceedingly elaborate means used to secure a comprehensive description of them. The networks employed portable short-wave transmitters to feed the various descriptions of the events in their re- (Concluded on page 29.)

FOR several months negotiations have been proceeding between the IYA programme organiser and the bands on several overseas steamers which call at Auckland regularly, but something has always cropped up to prevent the fixing of a date for the visiting musicians to play over the air. However, a date has now been arranged for the band of the s.s. Rangitiki to appear from IYA, and listeners will hear them on December 29.

THE relay of the Melbourne Cup given by IYA was most successful and was greatly appreciated by a large number of listeners. The description was clear, and the cheering and shouting at the finish made it quite realistic. Some of the Auckland radio dealers placed loudspeakers in their shop entrances and attracted large audiences. Listeners with short-wave receivers were able to pick up the broadcast from Australia direct.

IN continuation of the series of full evening programmes presented from IYA by leading local teachers and their pupils will be one given by Dr. Phillips and his pupils on December 16. Dr. Phillips is president of the Auckland Society of Musicians, and is one of the best-known figures in local musical circles.

WITH the approach of summer and its attendant holidays and camping expeditions one would expect the

NOTES and NEWS from the NORTH

sale of portable radio sets to increase, and "Call Up" has recently asked a number of Auckland dealers what the general attitude of set buyers is to the portable. It appears that this type of set has never attained much popularity in this part of the world, and inquiries for them are few and far between. The chief reason advanced for this is that the portable usually has a fairly limited range. In spite of this, however, one dealer claims to have heard 2YA in Auckland in daylight with a portable. "Call Up" considers that the short range excuse is insufficient to explain the unpopularity of the portable. If ever there was a district where such a set should be appreciated it is round Auckland. With such an abundance of beaches, camping places and yacht and launch havens one would expect the little portable to be widely used during the summer holidays.

ALTHOUGH the contract with the City Council for the relaying of the Municipal Band and Municipal

Choir has now been definitely renewed, neither will be heard over the air before the first week in December, as all the programmes from the local station have already been arranged up till that time.

SOMETHING extra special is to be given by the IYA Broadcasting Choir on December 9. This is the old

Opening of Auckland Station to be Broadcast.

THE official opening of the new railway station at Auckland will take place on Monday, November 24, at 2 p.m. The Minister of Railways, the Hon. W. A. Veitch, will speak, and the proceedings will be broadcast by IYA.

English idyll poem, "St. John's Eve," by Joseph Bennett, set to music by

Frederic Cowen. This is a very beautiful work, and is most appropriate to the season. The full choir of forty voices under the direction of Mr. L. Barnes will be heard, the soloists being Miss Gwladys Payne, soprano, Miss Cathleen Mulqueen, contralto, Mr. S. H. Poffley, tenor, and Mr. L. Barnes, baritone. The organist will be Mr. Eric Waters, and Mr. Cyril Towsey will be at the piano. Although this poem is well known it has never before been heard over the air in New Zealand, and it is twenty years since it was performed in Auckland.

IT has been arranged for the Auckland Society of Musicians to give a series of concerts from IYA next year, and some most enjoyable music can be confidently expected.

Anti-Piracy Drive

TO put down "radio piracy" the Indian Radio Corporation, of College Street, Calcutta, offers 20 crystal sets of its own manufacture each month to listeners who give information leading to the detection of unlicensed sets. The champion sleuth for the month will receive a special prize of a three-valve set, mains or battery driven, complete with loudspeaker.

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Freshman 5-Valve Table Model, complete	29 10 0	16 10 0	3 10 0	1 5 10
Screen-Grid, 4-Valve Factory Built, no Cabinet, complete	32 10 0	18 18 0	3 10 0	1 8 10
Watmel, 2-Valve English, in Oak Cabinet, complete	10 0 0	7 7 0	1 0 0	0 12 0
Silver Marshall, All-wave 3-Valve, Walnut Bakelite Cabinet, dry cell equipment, complete	20 0 0	14 10 0	3 0 0	1 1 8
N.Z.R. 2-Valve, in Cabinet, complete	9 12 6	8 10 0	1 10 0	0 13 3
N.Z.R. 3-Valve, in Black Kauri Cabinet, complete	12 12 0	9 12 6	1 12 6	0 15 0
N.Z.R. 3-Valve, in Rimu Cabinet, complete	12 5 0	8 5 0	1 10 0	0 13 0
Cossor Melody Maker, 3-Valve, Screen-grid, complete	15 0 0	12 0 0	2 0 0	0 18 8
Travler, Portable 5-Valve, complete	27 10 0	15 10 0	3 10 0	1 2 6
Hammuland Roberts 4-Valve with Dynamic Speaker and Wellmayde A Eliminator	33 10 0	23 0 0	5 0 0	1 19 2
Crosley, 6/60, 6-Valve, Mahogany Cabinet, complete	34 0 0	22 10 0	4 10 0	1 13 9
Crosley 804 Jewelbox, 8-Valve, All-Electric, complete	56 0 0	32 10 0	6 10 0	2 8 9
Crosley 704 Jewelbox, 8-Valve, All-Electric, complete	48 0 0	26 0 0	5 0 0	1 19 4
Crosley, 42A 8-Valve, All-Electric, complete	45 0 0	38 10 0	7 10 0	2 18 1
Crosley 32 Console, 8-Valve, All-Electric, complete	47 10 0	39 0 0	7 10 0	2 19 0
Airmaster (Australian), 3-Valve, All-Electric, Walnut Cabinet, complete	27 10 0	18 10 0	3 10 0	1 8 1
Aerola, 3-Valve, All-Electric, in Oak Floor Type Cabinet, complete	30 0 0	19 10 0	4 0 0	1 9 1
Fada 8-Valve All-Electric, complete	83 0 0	32 10 0	6 0 0	2 10 1
Crosley Showbox 8-Valve All-Electric, complete	45 0 0	30 0 0	6 0 0	2 5 6

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British Radio Flourishes

1930 Exhibition Marks Tenth Anniversary of Radio in England



THE considerable reduction of the net royalty on valves used in England has had a big effect on the trend of radio design in that country. It will be remembered that until recently a prohibitive sum was demanded in royalties for every valve sold, and this naturally meant that only the smaller sets found a market. The construction of four and five-valve sets was an unheard-of thing, and one and two-valvers were developed to very high degrees.

The absence of the heavy royalty had a very marked effect upon this year's Radio Exhibition, which has proved the most ambitious yet held. More valves are being used in this year's sets, though the American style of seven and eight valves has not yet found favour with British manufacturers. An increase in the number of valves has meant that sets can be simplified and the gain per valve need not be so high. The net result is a non-radiating set, in which tone is a feature.

The A.C. Set.

THE a.c. set has, as in other parts of the world, captured the buying public, though, judging from the exhibitions of parts, not the home constructor. This enthusiast is still interested in the construction of simple battery sets. The use of mains current has to a large extent been responsible for the marked increase in the number of portable and novelty sets. The objection to the portable is undoubtedly the impracticability of the small batteries that one must necessarily use. The mains set has overcome this problem, and the up-to-date sets exhibited can use either a light eliminator or a battery. This is of highest advantage, for the set can now be used in the home without the constant expense of batteries, and can be taken out into the country and put to its proper use. Just how small these can be made is exhibited by the tiny set shown in the accompanying photograph.

The development of power from the mains has introduced a large number of sets built particularly for room. Thus we see sets built into a dummy bookcase, into a marble or enamelled-topped table for the kitchen, another into a woman's work basket, and still another into the glove drawer of the hall.

The prices have shown a greater range than ever before. There was the two-valve set costing £2/10/-, and the 500-guinea machine that, combining gramophone and radio, incorporated not only an automatic record-changing device, but also a needle changer. The most remarkable thing about this set was the fact that it contained only five valves. Such a state of affairs is without explanation to the New Zealander who thinks of this class of instrument in terms of sevens and eights, but when it is realised that all the stations that are worth hearing are within a radius of 2000 miles or so, one can see the futility of powerful sets. The number of English programmes available can be counted on the fingers of one's hand.

Anniversary of British Radio.

THE exhibition this year marked the tenth anniversary of the introduction of radio into Great Britain. Just this time ten years ago Dame Nellie Melba sang "Home, Sweet Home" from Chelmsford to some 1000 listeners. Now some three million are registered set owners. This large number represents a percentage of nearly 81 per cent. of the total population and determined efforts are being made to increase this. It is anticipated that at least 25 per cent. more listeners will be added as a result of this drive. When it is realised that there are about four people to every family and one in every three persons now has a wireless set, some idea of the tremendous popularity of wireless will be gauged. The New Zealand ratio is about 4 per cent. and the Australian 5 per cent.

APPROPRIATE to the 10th anniversary of the birth of British radio, the Broadcasting Corporation arranged a special exhibit, showing the progress of wireless transmission during the ten years of operation. The first apparatus was very simple and inadequate as compared with the modern complicated machinery which was actually used during the exhibition.

As with the New Zealand exhibitions, programmes were relayed to the exhibition and over 250 loudspeakers were used to convey the music to the thousands who were present every day. With over 400 stands, representing a value of £5,000,000, and stretching as far as five miles, one had a good deal to see if the exhibition was to be covered in one visit. The stands were drawn by hallo! so that there was no grouping and one had to go to some pains to see everything he

was interested in. To facilitate matters a most comprehensive guide was prepared, and with this was a list of the principal stations in Europe, alphabetically arranged.

No Unemployed.

IN connection with the exhibition it is interesting to note that the rapid progress of radio is not leaving behind it a long list of unemployed, for it is claimed that in this industry alone there are no unemployed, not even an unemployment register. The industry has even absorbed large numbers of the unskilled. Six big factories have been opened in various parts of the country and a total of more than 200,000 square feet of new factory floorage has been laid down. Nearly a million people are employed in the English radio business and plans for its extension are now being matured.

Marconi's Reminiscences

MARCHESE MARCONI, who has been nominated president of the Italian Academy, recently addressed a meeting of the Italian Society for the Development of Science at Bolzano. After referring to the widening of the field of research by numerous recent discoveries in relation to the propagation of electric waves, and after having referred to the universal acceptance of the theory of Heaviside and of Kennelley of the existence in space of a reflecting layer of ionised particles, the speaker mentioned the numerous scientists who had studied and amplified the theory in question. He said that the results of the most recent researches served to confirm the hypotheses by which not one but several layers capable of reflecting electric waves existed at heights which varied according to the hour and the position of the transmitting station. The position of these layers was influenced by the effect of light, by the electrical and magnetic activity of the sun, and also, perhaps, by other causes so far undiscovered. After having analysed the progress made in radio communication on short waves, Senator Marconi recalled that the special qualities of these waves were studied and demonstrated by him at the end of 1915. He went on to explain the phenomenon whereby electric waves always preferred the longer to the shorter way between two stations, and added that this phenomenon is utilised in radio transmissions.

The speaker also referred to electric "echoes," which, he said, were divided into two classes according to the path which they took, and pointed out that the waves passed easily through the Heaviside Layer.

After confirming that the existence of reflecting layers is the most acceptable hypothesis for the explanation of the phenomenon of the transmission on waves over great distances, Senator Marconi explained the importance of the angle of transmissions with reference to the earth. He concluded his address with the hope that the science of radio would always work for the special benefit of humanity.



One of the features of the London Radio Exhibition was the large number of portables. Some of these have reached very small dimensions, and the one shown is almost pocket size. It is complete in every respect.

The New Zealand Radio Record

—AND—

Electric Home Journal

(Incorporating the "Canterbury Radio Journal.")

P.O. BOX. 1032, WELLINGTON.

Published Weekly. Price 3d. Subscription Post Free in advance, 12s. 6d. per annum; booked, 15s.

Literary communications should be addressed: "The Editor"; business communications to "The Manager"; technical communications to "The Technical Editor."

Advertisers are asked to note that alterations of advertisements should be in hand Friday of each week for insertion in the succeeding issue, printed Tuesday, bearing Friday's date. No responsibility is accepted for blocks remaining unclaimed three months after each insertion.

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

WELLINGTON, FRIDAY, NOVEMBER 14, 1930.

REVOLUTIONARY IDEAS IN RADIO.

REVOLUTIONARY ideas in radio, as indeed they are in any other science, are rare. Wireless has proceeded along a quiet orthodox path and the number of outstanding revolutionary ideas are indeed rare. To revolutionise there must be a sweeping and sudden change that alters the whole character of things. In radio we can recall only one, the discovery of the thermionic valve. Its application to radio has meant the establishment of radio as we have it to-day. Following it there has been a gradual evolution from the very simple circuit worked out by Fleming and improved upon by De Forest until we have reached our present achievement. The progress has been an evolution but revolution—no. Improvements have been small and each year has seen its quota until to-day we have seemingly reached the possibilities of the present systems. The same can be said of television, for it is realised that unless some discovery akin to that of the radio valve is made, television will mark time for a while yet.

In both radio and television we are confronted by two serious problems that have been unremoved for many years, interference and the limitations of broadcasting channels. Now it is well known that if two stations are operating on a frequency less than 10 kilocycles away, a heterodyne whistle will interfere with reception. A case in point is 1YA which has been quite spoiled in many districts through the interference of an American station, which though it cannot usually be heard itself, is strong enough to spoil the transmission of the New Zealand station. In Europe and America, where there are many stations all on high power, the problem is acute and many conferences have met to discuss the question. Sharp checks are kept on the transmissions of all stations, and those erring even as little as 3 per cent. are brought to book. Many stations have had to go off the air through not staying on their allotted frequency.

It has long been realised that the prevalence of atmospheric noises necessitated the increased power of stations if reception was to be noise free. But the amount of ether space has been against this, for

every listener knows the amount of interference even a five-kilowatt station like Wellington can cause, and what elaborate apparatus is necessary to eliminate it without lessening the sensitivity or impairing the quality of the received signals.

These problems have been with us for all time and anything that would provide a solution could be looked upon as truly revolutionary, providing, of course, it was nothing of an extremely simple nature such as one of the anti-static devices that were heralded as revolutionary in the early days of popularised radio. At the present moment a British engineer is demonstrating in America a system of transmission and reception which is claimed to allow of the operation of three times the present number of broadcasting stations, without interference on the broadcast band. If it is successful it will probably lead to the realisation of practical television and the solution to radio interference. We await with interest the results of these tests.

Interesting though the system be and revolutionary it promises to be there are several factors that must be considered before it can become universal even though it should succeed. The present market must be studied though it is likely that receivers now in use could be altered to accommodate this new system even supposing it should be released within the useful life of these sets.

Can You Compose a Song?

Comprehensive Broadcast

Prize of Three Guineas

Melbourne Cup Race

AT the last meeting of the 1YA Musical and Dramatic Committee the result of the first stage in the song writing competition was announced, and it was decided to offer a prize of three guineas for the best musical setting to the words of the poem.

A prize of £3/3/- is now offered for the best musical setting to the words of the poem. Copies of the poem may be obtained from Station 1YA or from the Broadcasting Company, Christchurch.

The judges will be: Dr. S. Kenneth Phillips, Mr. H. Hollingrake, and Mr. John Tait. In the event of the judges deciding that no entry is suitable, no award will be made. Each entry must be signed with a pseudonym and be accompanied by a sealed envelope containing the pseudonym and the competitor's name and address.

Entries must be addressed: The Judges, 1YA Song-writing Competition, Station 1YA, France Street, Auckland, and must reach the station not later than November 28.

IT is doubtful if any event in the world demands such a comprehensive broadcast as the description of the running of the Melbourne Cup at Flemington racecourse on the first Tuesday in each November. This famous horse race—the most famous handicap in the world—has come to be regarded as almost a national event in Australia, and, for that reason, the Australian and New Zealand Broadcasting Companies made arrangements for broadcasting this year from every "A" class station in Australia and New Zealand the description of the race by Eric Welch.

Shortwave stations 2ME and 3ME also broadcast descriptions, and it was from the latter that New Zealand stations rebroadcast. Everything taken in consideration the event was most successful. All four stations carried out the rebroadcast, and although all were good, Christchurch, which station came on the air especially for the event, was particularly so, being very steady and clear throughout.

As was done last year, the Broadcasting Company, by special contract with Amalgamated Wireless (Australasia) Ltd., arranged for a short-wave broadcast description, which all the New Zealand stations picked up and rebroadcast.

Many listeners will not realise that through these broadcast descriptions people thousands of miles away from the racecourse could know the result before 50 per cent. of the people on the course. At the very instant the horse passes the post the information is available to listeners, whereas, of the 12,000 odd people at Flemington, quite half of them were not in a position to identify the horses and sort out the winners.

The many appreciative remarks that have been passed concerning the broadcast show that most listeners took a great interest in the event, and were delighted at the successful rebroadcast.

Where Radio is a Necessity

News in Isolated Places

A TRIBUTE of an unusual nature is paid 2YA by the Rev. A. H. Barnett, of the Vicarage, Rakaiia. "I have just returned to New Zealand after spending 3½ years as Anglican vicar of the Chatham Islands, and I should like to express our appreciation of the very clear and painstaking manner in which 2YA has, during that time, broadcast the world's news; for it means so much to the people in an isolated place such as Chatham Islands to hear the announcements clearly."

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RADIO TUBES AND BATTERIES

AND UNIT CELLS

Advisory Committees Meet

A MEETING of the IYA Musical and Dramatic Committee was held on Friday, October 31. Mr. A. B. Chappell, representing the Dickens Fellowship, presided. There were present: Mr. J. F. Montague (Auckland Comedy Players), Mr. E. Blair (W.E.A.), Mr. E. D. Robins (University Students' Association), Mr. Karl Atkinson (Auckland Piano Students' Association), Miss G. Bertram (N.Z. League of Penwomen), Mr. L. E. Lambert (Bohemian Orchestra), Mr. C. B. Plummer (Auckland Choral Society), Mr. F. M. Price (Aeolian Orchestra), Mr. L. C. Barnes (station director), Mr. O. M. Pritchard (programme organiser). An apology for absence was received from Mr. T. T. Garland.

The adjudicators in the literary section of the song-writing competition announced that the winner was Mr. W. F. Chambers, of Wellington, with Miss Lusher, of Remuera, very highly commended. It was decided to proceed with the second portion of the competition and to offer a prize of three guineas for the best musical setting of the words. Entries will close on November 28. The adjudicators will be: Dr. S. Kenneth Phillips, Mr. H. Hollingrake and Mr. John Tait. The chairman, who was one of the judges of the poems, stated that he proposed to broadcast a talk regarding the competition and the entries received.

In connection with the spelling-bee for school children, the chairman reported that he and Mr. Barnes had the matter in hand. Reporting on coming programmes, Mr. Barnes said that on November 26 the Auckland Training College Glee Club will be broadcast.

November 29 is being given over to a special Scottish programme as that is St. Andrew's Day. On December 3 the Jubilee Institute for the Blind is giving a concert, and on December 9 the IYA Broadcasting Choir will perform "St. John's Eve." On December 10 the Ponsonby Boys' Band is giving a programme. With regard to talks, Mr. E. S. Kohn is giving two talks, one on December 2 and the other on the 9th, on "Birth Stones." In December also, Dr. Kenneth Phillips would give a concert and Mr. Montague would present an entertainment called "Passers By," the nature of which would be kept secret. Next year a series of six concerts under the auspices of the New Zealand Federated Society of Music Teachers would be presented.

THE Rev. L. B. Busfield, representing the Sunday School Union, presided at a meeting of the IYA Children's Sessions Advisory Committee. Also present were: Mr. D. W. Faigan (Uncle Dave), Mrs. J. F. Montague (Girl Guides' Association), Mrs. Jean Le Petit (Aunt Jean), Mr. T. T. Garland (Uncle Tom), Mrs. A. E. Roughton (Boy Scouts' Association), Rev. A. V. Whiting (Uncle Bert), Miss R. Palmer (children's organiser), and Mr. L. C. Barnes (station director). Apologies for absence were received from Miss Jean Begg and Miss Platt.

It was reported by Mr. Barnes that the secretary of the Education Board was going into the question of ar-

"I'm Just an Invalid"

Appreciative Verses of IYA Children's Session

SATURDAY evening, November 1, was the occasion of the third birthday of the Children's Session at IYA, and a happy hour was spent, all the "Uncles" and "Aunts" collaborating. The following verses were supplied by an invalid listener, "who sits around all day and listens-in to everything that comes from IYA"—and evidently appreciates everything:

*I'm just an invalid, worse luck!
Who sits around all day
And listens into everything
That comes from IYA.*

*This is a rhyme of Children's Hour
The hour that's hard to beat;
The children are so clever
That it really is a treat.*

*Dear Cinderella's cheery laugh
Makes me feel bright and gay;
She's such a very jolly Aunt
Of Station IYA.*

*Nod's stories, they are very fine,
And quite instructive, too;
It's very hard for me to think
That they can be true.*

*Now, Uncle Tom's a humorist
When not in preaching mood;
A few more men like Uncle Tom
Would make the world quite good.*

*Aunt Jean's a very charming Aunt;
Her verses cause delight.
I always wonder what she'll say
To us on Friday night.*

*On Sunday night the Children's Choir
Sings very sweet and clear,
And Uncle Bert tells Bible tales
Of peace, goodwill, and cheer.*

*Peter Pan's quick repartee
Shows he's a clever fella,
He quarrels every Thursday night,
And teases Cinderella.*

*Uncle Dave's an optimist;
His tales with fun abound,
And I am very, very sad
When six o'clock comes round.*

*Don't you love the funny songs
Sung by Uncle Barn?
He can imitate most things,
And tell a jolly yarn.*

*For all the Aunts and Uncles
Let's give a hearty cheer.
For Uncle Reg and Sunny Jim,
Whom I delight to hear.*

*So, many haps to IYA,
On this your birthday three,
And may you have a happy time,
And keep on cheering me.*

Television for Canada

THE new centre of television broadcasting in Canada will in all probability be at Toronto, according to an announcement made in connection with a display of the first commercial television receiving set in Canada at the Canadian National Exhibition recently. It is planned to form a company of prominent Canadian business men to proceed with the installation of equipment on an extensive scale. It is expected that Montreal, Hamilton, and other important cities of the Dominion will closely follow Toronto in the installation of equipment, giving Canada, a regular radio television broadcasting service.

ranging talks on vocational guidance with the view to helping children before they leave school.

Miss Palmer reported that school choirs were contributing some very fine programmes, but these choirs would not be available during the summer holidays. The Girl Guides, however, were preparing for the great rally which will mark the visit of Lord Baden Powell in February, and had offered to give programmes.

Mrs. Montague said Miss Burghin would give a talk on November 25 on the aims and objects of the movement. On Christmas Day a session will be held at 9 a.m.

Long Distance Reception of 2YA

LONG-DISTANCE reception of 2YA is frequently reported to the Radio Broadcasting Company. Particularly good results have been obtained by steamers and not infrequently reception has been reported on the east coast of the United States.

What, however, appears to be a record breaker is a report from the second engineer of the Port Glasgow, which recently visited Wellington. When two days out from London 2YA was received very clearly on an ordinary five-valve neutrodyne type of receiver.

The fact that it can be received there, let to our knowledge, never in England, goes to show that reception on the sea is much better than on the land. This can be explained by the absence of all forms of interference other than atmospherics and the absence of screening metals and objects.

WHY?

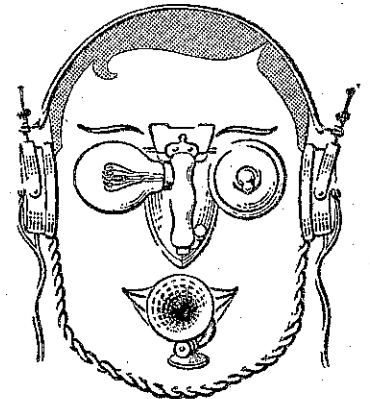
Kingsford Smith uses Burgess Batteries. Commander Byrd uses Burgess. More Burgess Batteries are sold in New Zealand than any other make. Why?

BURGESS RADIO BATTERIES

Empire Broadcasting

Estimates of Cost

OF the Empire Broadcasting scheme a writer in London "Popular Wireless" says:—It is very difficult to indicate the cost of such a service. Some people estimate the capital cost at two hundred thousand pounds. I do not think so high a cost is necessary. I think three transmitters, each with quick wave-change devices would be suitable. I put the whole cost at nearer £100,000 as an outside figure than the one I mention above and have heard quoted. This would mean a write-off charge of £10,000 a year. Then there is maintenance, land-line charges, personnel, and power supply. The total cost of running the service might be of the order of £20,000 a year. This would mean collecting more than £50 a day for programmes.



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WELLINGTON

What Would They Think?

Students in Novel Programme

JUST over two years ago the Auckland Students' Association was formed, and since then it has exerted an increasingly beneficial influence in the musical life of the Queen City. With a membership of thirty to forty, the association's activities are most useful in character, holding every other Monday, during the season, an evening devoted to mutual study. All members take an active part in the meetings, which are given over to expositions of various aspects of piano theory, musical form, history, etc., with practical examples of various composers' works. Special stress is laid on two-piano work, facilities of which are provided at the association's rooms.

The spirit of mutual help and sympathy permeates all, and the ranks of the association seem to contain nearly a hundred per cent. of live, aspiring musicians. The papers prepared and the demonstrations given at the gatherings reflect a seriousness of purpose that is refreshing in the present difficult times for music. Various prominent musicians who visit Auckland have given the members every encouragement by advice and helpful talks, as have also leading local professional musicians. It seems a pity that the movement could not spread to other centres, which by affiliation might advance the cause of piano music generally.

Much work, of course, falls on the president, Miss Joyce Parker, and the hon. secretary, Miss Reita Kennedy, but with the wholehearted support of the members their duties are rendered less onerous. The association is represented on the IYA Musical and Dramatic Committee by Mr. Karl Atkinson.

A feature of the recital to be broadcast by IYA on Wednesday, November 19, will be some examples of two-piano work. In the course of the programme the shades of Beethoven and Chopin will discuss the present state of music from an instructive and entertaining angle. The dialogue will be conducted by Messrs. Karl Atkinson and W. E. McMichael. The vocalists will be Mr. W. E. McMichael, Miss Winifred Hill, Miss Patti Schnackenberg, and Mr. Tom Copsey.

Distinguished N.Z. Artist Returns

Cecily Audibert to sing for 3YA

IN 3YA'S programmes the interesting fact is noted that an artist of outstanding merit, Cecily Audibert, is to broadcast on Wednesday, November 19.

This will be Miss Audibert's first appearance before the microphone in New Zealand, but she is well known on the professional stage, particularly in Australia, where she gathered many laurels.

In a critique of the opening night of a season of "Our Miss Gibbs," the "Sydney Morning Herald" said: The production of the musical comedy "Our Miss Gibbs," by the Bankers' Operatic Society, at the Conservatorium on Saturday night, proved a personal triumph for Miss Cecily Audibert, whose delightful voice, dainty personality, and histrionic ability were combined in a charming characterisation of the title-role. Referring to the same performance, the "Daily Guardian" said: In deciding to present a revival of "Our Miss Gibbs," the Bankers' Operatic Society has picked a winner. And in choosing Miss Cecily Audibert to play the name part it has picked another winner. Slim, dainty and vivacious, she is an ideal "Mary." Her voice is a good soprano and many professionals



might with advantage emulate her clear enunciation. It is refreshing, nowadays, to hear a singer whose words can be understood.

Miss Audibert toured extensively with the well known Humphrey Bishop Musical Comedy Company and she was a great stage success. Added to a charming personality she has a delightful flair for songs at the piano.

Of her engagements at Hoyts, a press report says: Miss Cecily Audibert has won her way to popularity at Hoyts. Possessing a fine appearance and an equally fine voice. Cecily's numbers are always attractive. She works in some delightful ballet numbers this week with Hoyt's high steppers.

A Christchurch girl, Miss Audibert was well known in musical circles in that city before she went to Australia. It was in Sydney, under the direction of a great Italian music teacher, that her voice developed so magnificently and where she became such an accomplished artist. She has now returned to Christchurch, and listeners have reason to hope that she will frequently broadcast.

Children's Sessions

FROM IYA.

TUESDAY, NOVEMBER 18.—Interesting stories from Uncle Dave, songs from Cousin Len, and piano solos from Cousin Miriam.

WEDNESDAY.—The Radio Family will be entertained by Uncle Tom, assisted by Cousin Doreen singing, and Cousin Marie reciting.

THURSDAY.—Peter Pan will have stories and puzzles for the boys

and girls. Cousin Joyce will recite, and Cousin Phyllis will play.

FRIDAY.—Nod and Aunt Jean in their usual cheery style, and cousins giving musical items.

SATURDAY.—Plenty of fun with Cinderella and Uncle Barney this evening, and Postie very busy delivering parcels to the Birthday Folk.

SUNDAY, NOVEMBER 23.—Children's Song Service, conducted by Uncle Bert.

Radio Pictures Service

THE first picture transmitted by wireless from Australia to England is a photograph of Wing-Commander Kingsford Smith, published in "The Times." This was sent by Beam, and received by Imperial Communications, Ltd. The transmission was only experimental; a regular service does not start until the Marconi facsimile apparatus has been installed at both ends.

While expressing pleasure at the result, Mr. E. T. Fisk, managing director

Weather Report for Farmers

A WEATHER report, supplied by Dr. Kidson, of the Meteorological Department specially for the benefit of farmers, is being broadcast daily from 2YA at 3.30. On Wednesdays (2YA's silent day) it is broadcast from 3YA.

of Amalgamated Wireless, emphasised to-day that the transmission was purely experimental.

A commercial service is not yet possible, he says, but this transmission showed definitely that in favourable circumstances it is possible to send pictures over this great distance by wireless. The achievement would maintain Australia's reputation as a pioneer in world wireless development.

FROM 2YA.

MONDAY, NOVEMBER 17.—To-night the "Kipling Lady" and "The Maori Legend Lady" will be here with Uncle Jeff. There'll be riddles, puzzles, fun and laughter for all. Musical and elocutionary items will be given by Mrs. Martyn Williams's pupils.

TUESDAY.—Uncle Jeff and Jumbo will be here to entertain and there will be songs and chorus work by Radio cousins.

THURSDAY.—Big Brother Jack and Uncle George to-night. The Cubs and Boy Scouts from Karori will also be here.

FRIDAY.—We want you all to listen to-night because we have a secret: it's Spot's secret, or rather it's a secret to be kept from Spot and he's frightfully curious about it, so he's coming down with Uncle Jasper, and Uncle Jim will tell him all about it.

SATURDAY.—This is an "Alice in Wonderland" evening, and the Aerial Singers have promised to sing you "Nonsense Songs."

SUNDAY, NOVEMBER 23.—Uncle George and the Children's Choir from the Vivian Street Baptist Church are to be in the Studio to-night for the Song Service at 6 o'clock.

JANETTE ROTARY CONVERTERS

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

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

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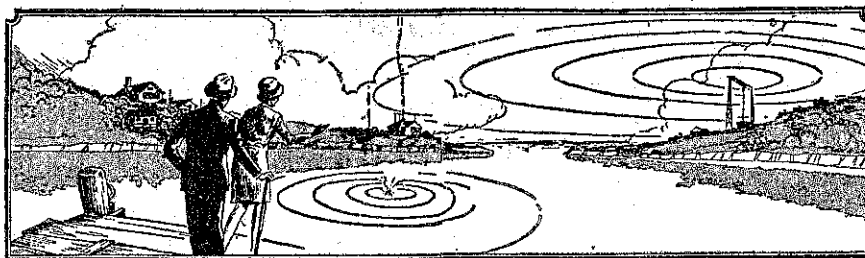
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It takes only a short period of easy study to qualify as a wireless operator. For full particulars

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Brandon Street, WELLINGTON.

Music from the Air

How a
transmitter and
receiver works



described by
Colin W. Smith
from 2YA

In general principle the ripples made by waves or by a stone thrown into water are the same as the radio waves. This illustration shows the similarity.

YOU have all been to the seaside when the surf was rolling in with a great long line of breakers, and no doubt very many have seen light floating objects and noticed that they do not move in with the breakers but merely drift with the tide. This shows us quite clearly that the water does not move, except, of course, where it breaks, but that the waves are something different. They result from a transfer of energy from one place to another. The waves you witness on the seashore travel only a few feet a second, often not that.

Now we come to sound, which also consists of waves. Every time a sound is made some object vibrates and that makes the air vibrate; our ear receives the varying air-waves, and we hear. Again the air has not moved—it is that same mysterious transfer of energy, although in this case the sound travels just over a thousand feet a second.

In electricity and light the same phenomenon occurs. We still have the waves, but they travel at the remarkable pace of 186,000 miles a second. Again we must remember that it is not the medium through which they travel that is moving, but this strange nothingness called energy.

NOW we will return to the seashore. At different times the waves, according to the wind and tide, are different distances apart. On one day they might be separated by perhaps 10 feet, while on another 30. If we had the necessary apparatus we could measure the distance from the top of one wave to another, and we could conveniently speak of this distance as the wave-length. We could do the same with sound and electricity but, although the wave-length could be made to vary, the rate of travel remains the same. The breakers do not come in faster because the waves are closer together, but more waves come in.

We will now go right up the scale to the type of ray that is used for X-ray work. That is one of the smallest we know of, and there are just 25 billion waves or ripples a second, and from this remarkable number electricity although travelling at the constant pace, varies to below 20 waves every second. Your electrical supply travels in waves which leave the source at 60 to the second, and the hum you hear in your set is this turned into sound waves.

Between these two limits we have visible light at about 300 million waves a second, shortwave broadcasts take place on 20 million waves and broadcasting on one million. These figures are only approximate, and of course variations take place on either side. We speak of the number of waves a second as the frequency and so my voice is now being carried by electricity which travels at 186 thousand miles a second, and there are 720,000 waves each second, in other words 2YA's frequency is 720,000 cycles or 720 kilo (a thousand) -cycles. Now, if the distance between each wave were measured it would be found to

be 416 metres; in other words, 450 yards, so that will give you some idea of the rate at which my voice is now travelling. These waves, all of which have more than 15,000 ripples a second, are called high frequency waves, and you will remember they were experimented with by Hertz, and have been called Hertzian waves.

They have remarkable penetrating power, for they can go underground, through space, through buildings, and through water.

It can be seen that the frequency multiplied by the wavelength must equal the speed of radio waves which always remains constant at 186,000 miles a second. This is the equivalent, roughly of 300,000,000 metres. Now putting that down in simple form we have

$$F \times W = 300,000,000$$

Now we can remember from our algebra that the following is the same thing stated differently:

$$F = \frac{300,000,000}{W} \text{ Cycles}$$

But we do not want cycles, so we divide the frequency and the speed of electricity each by a thousand, and we have:

$$F = \frac{300,000}{W} \text{ or } W = \frac{300,000}{F}$$

NOW sound, as I told you, is very much the same as electricity in its movements, but slower. The waves of audible sounds (that sounds Irish, but some sounds are inaudible) leave the object which is making that sound at a rate of between 25 and 15,000 a second. These have not the penetrating power of electricity, and consequently do not carry far. Broadcasting, in a nutshell, supplies a means of getting these high frequencies to carry the voice frequencies. If we have a coil of wire and a condenser, and induce a charge of electricity into it, this charge will surge backward and forward from one set of plates to the other, and will pass through the coil. So long as the energy is constantly supplied, this surging will be kept up.

Now, if the aerial is connected to one set of plates and the ground is to the other, the surging takes place just the same, and as it oscillates backward and forward it gives the aerial alternately a positive and negative charge. The number of waves leaving the aerial can be regulated by altering the value of the condenser or the coil, and the station will transmit on this frequency until either is altered. At the broadcasting stations there are many different circuits, and the final result is a strong charge going into the aerial and leaving it on a definite frequency—a definite number of waves a second. As I remarked before, the value of this current is varying regularly between positive and negative; in other words, it is an alternating current—perfectly regular in all

ways. It was this current that Marconi used in his early experiments, and which is now used for Morse, but it is altered for ordinary broadcast.

THE microphone is a wonderful little instrument.

At the present moment it is picking up the slow vibrations in the air caused by my voice. They are being strengthened by a valve which is tucked away in the microphone housing and taken into another amplifier until it is a very big voice indeed.

At this stage it is taken to the oscillating current which goes into the aerial, and in a very remarkable way it is super-imposed on it, and the wave now leaving the aerial is said to be modulated.

Your receiver merely reverses the procedure that is taking place in the broadcast station. You have a coil and a condenser, perhaps a coil only in the very simple sets. When the value of the condenser and the coil are at a certain figure, and this is the same as at the transmitter, your set and the transmitter are in resonance, and you can receive the waves from it. But it offers a very high resistance to all waves that it is not in resonance with, and that is why you cannot hear the other stations. It is really the case of a lock and key. From your point of view the key is the transmitting station and cannot be altered. But you have the power to alter the lock, so that you can admit one key and keep out all the rest.

THE power you receive from a transmitting station is very small. It can be measured only in thousandths of a volt. If you connected a pair of telephones (or earphones, as they are generally called) to this tuned coil and condenser you would hear nothing, though the energy is undoubtedly there. No it is travelling through space at a rate too fast for the diaphragm, that is that thin piece of metal in the earphones, to respond to. The slow speech vibrations which are imposed upon the faster ones must be stripped away, and this is the function of the detector. Now I told you last time the interesting times some of the earlier experimenters had in trying to find a sensitive detector, but when you come to consider there are only thousandths of a volt of energy obtainable, you need something fairly sensitive to receive them.

The crystal is one of the best detectors. It will strip away high frequency and leave the low, but the sound waves have been converted to electrical waves, and before we can hear them they must be changed back to sound waves. This is the function of the phones or loudspeaker. The crystal has no means of strengthening up the weak currents, and so you can only listen to the station on the phones. If you wish to use a loudspeaker, valves must be added. Now the valves, as we noted in talking about the birth of radio, has made radio as we understand it, possible. If a wire is arranged in a vacuum and heated to a white heat it will give off electrons (small (Concluded on page 29).)

A Talk on Music

FROM 2YA on Monday, November 17, the programme will be interrupted for a lecture which should be of unusual interest to all radio listeners. Dr. John Borland, who is at present in New Zealand examining for the Trinity College Examinations, will speak on the "Foundations of Musical Training."

Special N.Z. Programme

I HAVE received a communication from HRB, of Honduras, Central America, saying that they will be transmitting a special N.Z. programme on November 29. Some weeks back I received verification from this station, and they asked me to fix a date for a special programme. I gave November 29 as the date, and it appears that they have accepted this date.

Transmission will be made, using a power of 2500 watts. The first half of the programme will be made on a wavelength of 49.95 metres, and the latter half on a wave of 48.62 metres. This arrangement is made so that the two halves of the programme may be compared.

HRB invites reports from N.Z., particularly those on the reception of the special programme.—Vernon Wheatley (Auckland).

HAVE you renewed your subscription to the—"Radio Record and Electric Home Journal"?

12/6 in Advance; 15/- Booked.
BOX 1032, WELLINGTON.



THE MATI TRIO.
A popular Auckland combination whose light numbers from 1YA attract a great deal of interest.

—S. P. Andrew, photo.

FZR, Saigon

ON Sunday (October 19), on 18.5 metres, FZR, Saigon, at 7.40 p.m., was calling JAA, Tokio. Volume was R9, very clear and steady. I have also heard him on 24.9 metres. Volume is nearly always R9. FZR operates on 18.5 metres from 11-12 noon, E.S.T.; 24.9 metres from 11-12 noon, E.S.T. On the former wavelength he is on duplex with FRE, St. Assise, France, while on the latter he is testing with FTN, St. Assise, France. On 16.88

metres, PHI, Huizen, Holland, works from 8 to 10.30 a.m. Monday, Wednesday, Thursday, Friday, Saturday, E.S.T., which equals about 12.30 midnight to 3 a.m. the following day here; this explains why PHI is seldom heard here now.—"Metre" (Huntly).

TWO steam trawlers which fish on the Dogger Bank have been fitted with wireless telephone equipment. They will patrol the fishing grounds and give reports by radio of the movement of shoals.

Greatest Discovery

Hundred Years of Electricity

THE Royal Institution is making arrangements for the celebration in September, 1931, of the discovery by Michael Faraday of electro-magnetic induction, in which lies the origin of the dynamo and which is the starting point of the utilisation of electric power for the purposes of man.

The day of the discovery was August 29, 1831. On that day Faraday, as his diary shows, working in his laboratory at the Royal Institution, wound two coils of wire on to opposite sides of a soft iron ring, connected one coil to a battery and the other to a galvanometer, and at the "make" and "break" of the battery circuit observed the deflections of the galvanometer connected in the other circuit.

From this simple experiment and the variations made in it by Faraday in subsequent trials has grown in the past 100 years the science of electrical engineering. The Royal Institution, in a preliminary announcement of the proposed celebrations, says: "No other experiment in physical science has been more fruitful in benefit for mankind. August 29, 1931, is, then, the centenary of one of the great events in the history of the world."

The Royal Institution and the Institution of Electrical Engineers have joined forces in making plans for the celebrations, and a number of other societies and organisations are co-operating. The Royal Society will entertain the delegates; the British Association has arranged the dates for its centenary meeting in London, also in 1931, to coincide with the Faraday celebrations; the Federal Council for Chemistry will participate in the arrangement of a Faraday Exhibition, for Faraday's chemical researches—his isolation of benzene and his establishment of the laws of electro-chemistry—are hardly less remarkable than his purely electrical discoveries, and Governments, university, and scientific interests have joined in offering their assistance to make the celebrations worthy of the occasion.

Faraday kept a careful diary, in his own hand, of all his experimental work, which was bequeathed to the Royal Institution, and for over 60 years has been its most treasured possession. The Royal Institution has resolved to publish the diary in full. It is intended to have two or more of the six or eight volumes in which the work will ultimately be completed ready by September, 1931.

ELECTRICITY Power Boards charge anything from 1d. to 8d. per unit (according to the districts), but the cost of one such unit supplied from batteries would run into pounds.

Heavy Smoker for 63 Years

I was a heavy smoker for 63 years, but after using half a bottle of "Anti-Bacco," I am grateful to say I am a non-smoker. Write or call for particulars. Home Welfare Pty., A.M.P. Buildings, 36R Hunter Street, Wellington.

COMING!!

"Radio's Clearest Voice"

with Completely Automatic Remote Control

ENTIRELY NEW

COMPLETELY DIFFERENT

THE GREATEST RADIO IN ALL HISTORY

THE rebroadcast description of the Melbourne Cup was quite creditably performed by station 2YA, Wellington, despite the atmospheric conditions being somewhat unstable. The proof that 2YA did its work well was evidenced by the first-rate description of the race taken down by Mr. Clive Drummond, the announcer. During the news session the account was read out from his notes, which covered the race from start to finish without missing one feature of the running.

"SWITCH" has heard criticism of the procedure adopted by Mr. Eric Welch, who described the running of the Melbourne Cup, in giving a long dissertation of a historical nature on past cup winners when there was so much of far more interest spread before him. A description of the scene at Flemington, the thousand and one incidents associated with the few minutes during which the horses are being prepared for the great event, would, according to some critics, have been far more acceptable.

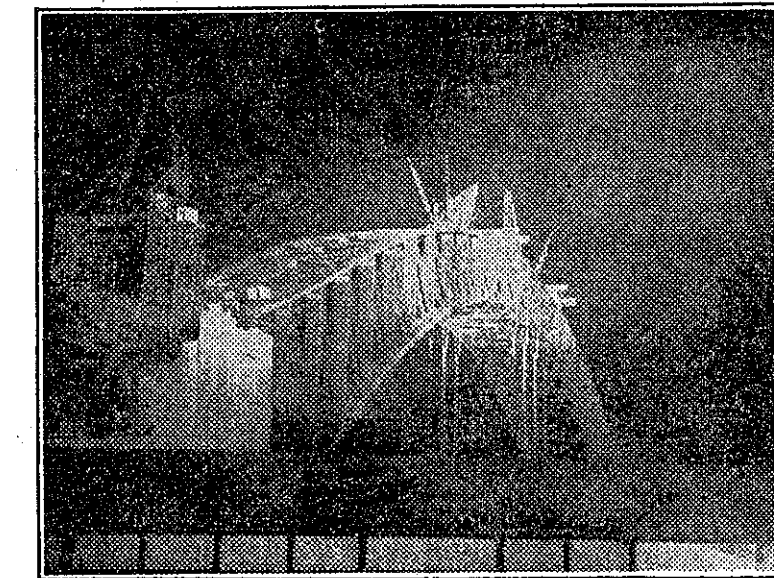
AN interesting broadcast from Australia will be the production on Thursday, November 20, from station 2BL, Sydney, of the famous play by the Czecho-Slovakian playwright, Dr. Karel Capek, of "R.U.R." "R.U.R.," though written of course for the stage, is ideal for the microphone. It combines an adventurous plot—a succession of arresting ideas—of a weirdly intense atmosphere which from the studio is calculated to have tremendous effect on listeners.

"R.U.R." stands for "Rossum's Universal Robots." The word "Robot" has passed into the English vocabulary since its invention as "a man so mechanised by routine as to have become almost an automaton." In the play it is the patented trade name of a mechanical workman invented by one Rossum. The original Rossum was a lunatic—a person who tried to strive with God in the manufacture of man. His son, an engineer and man of business, turned his father's research into practical account by producing synthetic workmen of a practical design, who were capable of doing more than twice the work of any human being. These factory-produced Robots are men without souls—they have no will power—can neither love nor suffer. After twenty years they wear out and cannot reproduce themselves. Their memories, however, are perfect, and they are skilled workmen—their only desire in life is work, and continue to work. The Robot factory is on an island in charge of four executives. The manager, who dreams of a world in which man will have everything done for him by Robots; the business manager, who thinks only in terms of huge profit; a physiologist, who has a scientific interest in the making and improving of these soulless automata; and a chemist, who doubts the wisdom of the invention. "R.U.R." when first presented created a stir throughout Europe.

A GOOD deal of anxiety among Wellington listeners who operate crystal sets and the less expensive valve sets is becoming manifest as to the possibility of interference from one of the two stations when the new Wellington "B" class station com-

mences simultaneous transmission with 2YA Wellington. Many owners of sets of the type alluded to will not be able to tune out one station to hear

over 18 months complained to "Switch" that the Australian stations seemed to have "lost their punch" since the mid-winter. He failed to realise that



An unusual photograph of Sydney Harbour Bridge. It is flood-lit by very powerful lamps from the Dutch cruiser, "Java," which recently visited New Zealand. When this bridge is opened the ceremony will be broadcast by the Australian stations.

—Philips Lamps, photo.

the other without also hearing the first. The only solution of the difficulty is in the use of wave-traps, for which a good demand will be created.

THOSE listeners who have been in the habit of eavesdropping on the London-Australia public radio-telephone service have lately found the conversations unintelligible. A new system has been introduced which mutilates the speech as it leaves the short-wave transmitter, and reassembles at the receiving end, thus ensuring much-desired privacy.

STILL further complaints have reached "Switch" with regard to electrical noises in and around the city of Wellington, which are so seriously interfering with broadcast reception of "outside" stations as to prevent the sale of sets. This is a matter which affects the revenue of the P. and T. Department and the Broadcasting Co. The general tendency is to expect the P. and T. Department to clean up the trouble. At the next conference of power boards the matter should be brought forward for consideration of remedial measures.

A WELLINGTON listener who had been using one set of valves for

the normal life of a valve was 1000 hours, and although it would continue to light its efficiency usually dropped considerably. A new set of valves immediately convinced the said listener that the poorness of reception was due to the use of exhausted valves.

THE Sydney "B" station 2UW is arranging to equip an aeroplane to carry out a series of descriptions from the air. Not only will these be given in the afternoons, but a moonlight broadcast from a 'plane hovering over Sydney has been arranged. A description will be given by Mr. Cooper Vines, one of the pilots engaged, who is a well-known broadcasting artist.

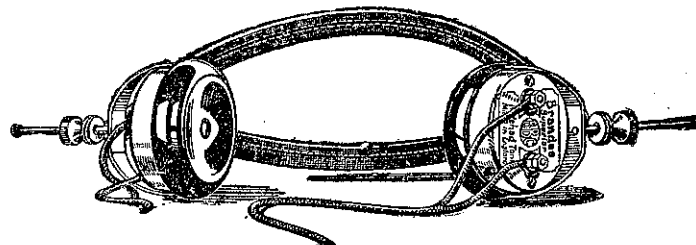
SO far this spring static has been fairly quiet, but on Tuesday night of last week a veritable tempest raged so that listening to "outside" stations was intolerable. The average beginner is loth to shut down on such a night, but he will save the life of his valves not a little by cutting out long-distance reception when static is severe.

THE other night there were bad breaks on the land-line connecting 2FC Sydney, and the Ashfield Town Hall, in which Mr. Charles Lawrence was conducting the community singing. For some obscure reason not a little time was lost at 2FC in switching on studio items to fill the gap while the land-line was being rectified. By-the-way, the community singing at the Ashfield Town Hall has reverted to Monday nights, instead of on Thursdays.

A WELLINGTON radio trader informed "Switch" that the latest in de luxe radio sets is a gramophone combination which, besides being a gramophone reproducer, takes a record, on an ordinary blank gramophone disc, of any item received by radio which the listener may desire to record. The operation of recording these items is simplicity itself, and requires only the most elementary instructions.

Brandes

The Name to know in Radio



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Price 15/-

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INTERNATIONAL RADIO Co. Ltd., Ford Bldgs., Wellington

Addresses and Addresses Wanted

ROMA (Kilbirnie): 2BO—H. C. Dixon, 36 Devon Street, Wellington. 2GY—L. H. Wass, 11 King Street, Petone. 2GJ—K. L. Elliott, 92 West Street, Feilding. 2XX—Western Electric Co. Ltd., Wellington. Others wanted, 4BU, 2OE.

R.J.R. (P.N.): T. L. D. Clyde wishes to know who is the American on 360 metres, 882kcs.

Station Identified

"SPARKS."—(Christchurch Station, on 2BL, is KWKH, Kennonwood, Indiana.

"Shortly," Wellington Station on 2PE, with call ending YW, is KYW, Chicago.—B.J.B. (Waipukurau).

The whalers heard by "Keijo" were probably the Cosmos, the Sir James Clark, and the Neilsen Alonzo. The C. A. Larsen did not come out here this year, but went whaling at South Georgia, South America.—H. Walker (Bluff).

"N.R." (Greytown): The Jap. below 2BL is JOAK, Tokio, on 345 metres (870 kilocycles). The American 2ZF's wavelength is KNX, Los Angeles. He is a reliable station till 2ZF comes on the air. "JS" station you heard was WENR, Chicago, a little below 2BL, not above, as stated. I have him every night, but Sunday is the best. He relays from Oregon Ballroom, Laurence Avenue, near Broadway, up-town, Chicago featuring Herbie Kay and his orchestra for a period of 20 minutes; then he goes over to "The Golden Pumpkin" Cabaret, at Hamelin and Madison,

NEWS AND VIEWS OF THE D.X. CLUB

where the music is supplied by Sol Wagner and his orchestra. He always ends up at the "Golden Pumpkin." The "Nebraska" mentioned was the State where the request for item came from "Keith A. Dixon." You heard KTM studio, located in Los Angeles, transmitter in Santa Monica. From 12 midnight till 1 a.m. is his special request session of gramophone records.—Kaidia (Frankton).

J.P.C. heard the programme referred to by Keith Dixon, identifying it as above.

Squeak (Christchurch): KLX, Oakland, California. "Jaka" (Haitaiti): 2ZO, Palmerston North.—J.P.C. (P.N.).

H.H. (Mercury Bay): Subject was Etiquette of Paying Calls, by an American lady. Station JOGK, Japan.—"Dink" (Helensville).

J.S.—Definitely WENR, from Aragon Ballroom.—P.D. (Palmerston North).

Reception heard by J.S. on Sunday, October 26, corresponds with part of programme from WENR, Chicago, on 870 kilocycles. Closing time, 7.55 p.m. summe: time, also corresponds with close down of WENR on that date. Had excellent reception myself, and sent away an almost complete report of items heard from 6.55 p.m. to 7.55 p.m. from WENR.—Gregg (Dunedin).

Identification Wanted

STATION on about 43 metres calling London at about 7 p.m. on Friday, October 31, is probably American.—Amateurs working duplex on 80-metre band on Monday, November 3, at 10 p.m.—Amateur who uses two A415's and 150-volt plate, working a second district amateur on phone on Sunday, November 2, at 10.30 p.m.—Roma (Kilbirnie).

DX Correspondents

WOULD correspondents observe the following courtesies:—

1. In asking for the identification of a station it is necessary to give more than the dial setting. Give the item broadcast, and before the stations can be definitely identified some other DX member should have heard that particular station giving the item. Otherwise there is far too much guesswork without any results.

2. When writing to different sections of the DX Club please keep the items separate, and write legibly. For example, do not mix up a paragraph for the DX Topics with a request for a station to be identified. Of paramount importance—be brief.

3. DX Topics should be of general interest to all DX readers, and not merely a statement that your log comprises so many stations received on such and such a set.

4. As far as possible try to follow the form of questions and notes that is set out in the page.

5. If possible express frequency in kilocycles and metres.

6. All communications addressed to "DX Editor, Box 1032, Wellington." Trade names will not be accepted as pen names.

7. A coupon is unnecessary.

Station 4 degrees above 2HD, on 218 metres, playing records, at 11.10 p.m. on November 1. Last item was "Three o'clock in the Morning," at 12 p.m., and then National Anthem. Announcing was faint, and static bad. Would this be 4BK?—"Keijo" (Invercargill).

Sunday November 2, at 7.35 p.m.—I tuned in what I believe was a powerful Chicago station. Announcer spoke with a very pronounced American accent, and mentioned "Up Town, Chicago. The items played and recognised were "Breeze" and "Wandering," and almost immediately afterwards the station closed. The station was located about a degree and a half below 2BL, Sydney.—Ritsam (Hawera).

[Chicago time, 2 a.m.—Ed.] Station, about 775 k.c.s.—Announcer wanted people to ring him for "request dance numbers," "Phone No. 1341." He said, "We are alone away up here, and would like you to ring and cheer us up." The first two numbers were, "Give Yourself a Pat on the Back" and "Moonlight on the Colorado." He said it was 11.28 (8 o'clock N.Z. time), and ring me up about your parties, and if you enjoy the music. He did not give the name of the station, and later on it became blocked out by static. Received on Saturday, November 1.—Phones (Hastings).

An American on 1400 kc. (214 metres)

just on 2ZI's frequency; have listened to this station for three nights, October 28, 29, and 30, between 7.30 and 8 o'clock, but have not been able to get call sign. Logged an American on November 1 and 2 at about 7.30 p.m.; call sounded like KYO Hamilton, but there has been too much generator hum to distinguish speech clearly. Station operates on about 200 metres (1500 kc.).—W.T.S. (Waiau).

Wednesday, October 29, station operating between 4QG and 5CL at 10.15 p.m. Items were "Dear Little Shamrock" and "Killarney," sung by children. Saturday, November 1, from 6.15 to 7.45 p.m., station operating on 252 metres (1190 kc.), approx., 7.20 p.m. Items were "Always" (song), followed by someone saying, "Come on, boys, give them some dance music" (Cheers and clapping.) Announcer's voice was unmistakably American. Morse interference was bad.—Lawrence Hutton (Mercer).

What station is it that has been playing popular records for the past two or three nights? The wavelength, varies during transmission from 350 metres, 855 kcs., 375 metres, 800 kcs., 366 metres, 820 kcs. After an item it seemed as if the operators switched off only to switch on again immediately. Time heard between 6 and 7 p.m. on 5/11/30, 6/11/30, and 7/11/30. Signal strength R7. I think it must be local. No announcements heard.—"Bob" (Lyall Bay).

D.X. Topics

Two KFI's?

RE Mr. V. G. Cunliffe (Tasman) station is 4BK. I hold a card from him. Address: Reuters, Ltd., National Mutual Buildings, Queen Street, Brisbane; wavelength 217 m., 1380 k.c.; input to aerial 200 watts. I also received verification from KSL, as did (Amazon, Palmerston North), including the pamphlet from the chamber of commerce. Last week I heard a station on 1430 k.c. giving KFI, Los Angeles. I get this station on 640 k.c. also. Can anyone explain this? The early morning birds are surely sorting out the stations. Good-luck DX-ers.—J.T.S. (Napier).

Power of Americans.

A MERICAN stations of a power of only one hundred watts seem to come over quite clearly here at times I have been successful in logging the following hundred-watters lately:—Four Californians: KFXM, San Bernardino; KMJ, Fresno; KWG, Stockton (50 watts); KXO, El Centro. Others are: KCRC, Enid, Oklahoma; KLO, Ogden; KVL, Seattle; WIBU, Poyneffe, Wisconsin. As regards the last named, there is no doubt about him being on one hundred watts as he made the announcement several times. Considering WIBU is nearly on the other side of the States, it is really remarkable that he can be picked up. I am using a three-valve set, one S.G. det. and one audio. Are the Americans rated on the input or output. To-night several Americans new to me were heard—namely, KFJF, Oklahoma City; KQW, San Jose; WCAU, Philadelphia; and KMPC, Beverly Hills.—V. G. Cunliffe (Tasman).

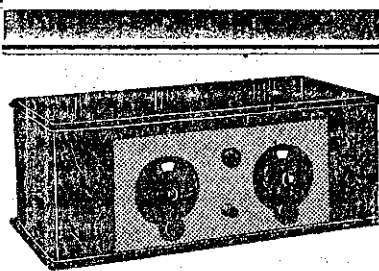
[We understand it is power in the aerial.—Ed.]

Americans Good.

SUNDAY, November 2, was a wonderful night for American reception.

Build Your Own Receiver It's Cheaper!

But be sure you build a receiver that will give you something outstanding in performance. Choose a Lissen Screen-Grid Three Kit Set—it's easy to build, and the results will delight you. In a few hours you can transform the box of parts into a remarkably neat, compact, and perfectly balanced receiver, that gives razor-edge tuning, with range, volume and rich, clear tone. Your nearest radio dealer will give you full particulars of the Lissen S.G. 3—See him today.



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ABEL, SMEETON, LTD.,
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PRICE OF KIT,
with full instructions and diagrams for construction—

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LISSEN
SCREEN-GRID THREE

WENR, KOA, KTM, KGO, KBBM, KYW, KNX, WOC, KFWB, KROW, and several others were coming in with wonderful strength. Also had WFAA, Dallas, Texas, testing on a programme of gramophone records. He was testing again on Monday, November 3. He said they were using an output of 50 kilowatts, and asked for reports from distant countries. KFWB had rather an amusing programme and were opening "The Goofy Club." The "Radio Sweethearts, May and Jerry," from the same station, are a treat. November 5: Americans coming in well with election results, many of the stations working overtime.—Kia Ora (Frankton).

Times for Indian Stations.

"BOB" (Lyal Bay), Indian stations from 1.30 a.m., Calcutta being first, till about 4.30. If he will tune in on Monday mornings, conditions being favourable, he will get the tail end of church service from Calcutta operating very close to 3LO. South African stations from about 4 a.m. till they fade out at daylight.—J.P.C. (P.N.).

A Correction.

IF I may I would like gently to correct P.G., Wellington, re WCCO. This station is very plainly heard at

times; very emphatically, I must say he is situated at Minneapolis, State of Minnesota, and that is a long way from Brooklyn, New York. I am waiting a reply from him now. To V. G. Cunliffe (Tasman), I wish to say I have a verification card from 4BK, Brisbane, transmitting from King House, Queen Street, Brisbane, operating Monday to Friday, 6 to 10 p.m., Sunday 7 to 10 p.m., wave-length 217 metres, 1380kc. I was pleased to read R.T.R.'s letter re LTD, Durban. I have had him on my log quite a while now, and Cape Town and Johannesburg are on the wave-lengths he states, but have never been sure of the call of the last two, but will persevere and get them. I have distinctly heard Moscow, pronounced as Mo-scav, but no letters. At 7.30 to 8 p.m., the 5th instant, I heard all the election results from WLW, Cincinnati, closed down Eastern standard time 2.52 a.m.; I have a letter on the way to them.—J.P.C. (Palmerston North).

Relays 2YA.

WHAT is the station operating about 1380 kc, which rebroadcasts 2YA programmes occasionally? Recently logged WMBR, Chicago, Illinois, on 1090 kc., with Scripture talk and hymns. Have heard it on two Saturday nights between half-past 6 and 7. Also WLW, Cincinnati, Ohio, on November 5, about

8 o'clock, broadcasting election results.—Yankee (Buntroon).

Palmerston Station.

HAS anyone heard a call, 2ZO Palmerston North? On Sunday evening, 2nd, at about 5.30 p.m., I heard him give call-sign 2ZO Palmerston, testing, and proceeded with more music. Also, is there a station KGEF California, just a few points above 2YB New Plymouth? I heard this station on Saturday at about 9.30 p.m., also early Sunday evening. I have heard "Switch's" station just above Dunedin several times, including last night, but have been unable to get call-sign.—Inquirer (Motueka).

[KGEF Los Angeles, California, 1300 kc. (230.6 metres, is near 2YB.—Ed.)]

A Texas Station.

STATION in Texas, America, WFFA. I listen to it nearly every night between the hours of 6.30 and 7.30 p.m., and that is what I make of his call.—W.T.S. (Waiau).

[No. WFAA is received often on 800 kc. (375 metres).]

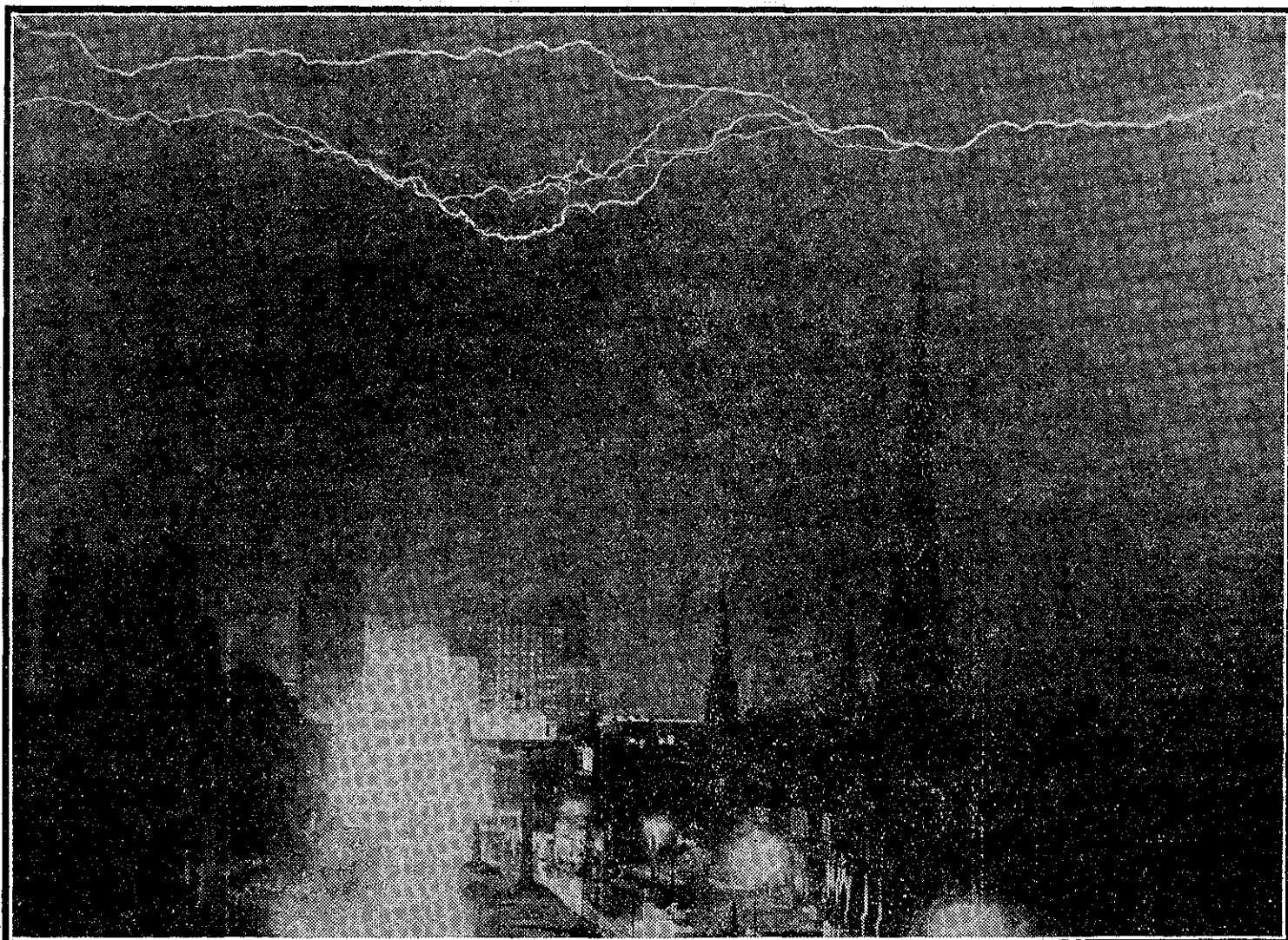
New Japanese.

I HAVE just received a cheery little card from WOAI, San Antonio, verifying reception. The script boosts the beauty of the place and extensively advertises it as a tourist resort, "where the sunshine spends the winter." After testifying to San Antonio's full share of

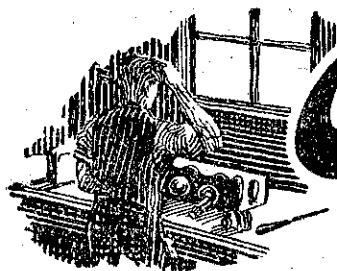
activity in the business world, the writer concludes with: "All this is tempered with the wisdom of the ages, that knows that, after all, commerce and industry are but a means to an end, . . . and that the chief business of life is to live, and how nature does encourage the idea in San Antonio. You'll like it here! Visit us soon! In the winter playground of America." A.W.A., Ltd., also wrote acknowledging my report on VJNL, "S.S. Noora." From Japan I received verifications from JOHK and JQAK. In addition to the stations listed in the 1930 "Guide," they have also JOJK, Kama-zawa, on 710 kc., 3KW, and JFAK, 900 kc., 1KW Taihoku.—"Amazon" (Palmerston North).

Americans Come in Well.

THE last fortnight has been favourable for DX-ing, and Americans have been coming through very well, so I have added several to my list. My latest loggings are: KGA Spokane, KFJF Oklahoma, KYA San Francisco, VKWK St. Louis. KWK stated that he was broadcasting on 1350 kc. and using 1000 watts. He also asked for reports on reception, as they had now installed a new transmitter, this being the one previously used by KMOX. On the same frequency I logged a New Zealand station, 1ZJ, John's, Ltd., Auckland, and on Wednesday last another station giving the call 2ZO Palmerston North. I also logged 4BK Brisbane.—H. Walker (Bluff).



A most unusual photograph of a lightning flash. When it is considered that a million volts will produce a flash only a few inches long, some idea of the tremendous power released during a thunderstorm can be understood. The power sent out by a broadcasting station can be measured only in thousandths of a volt, so, to say that broadcasting has an effect up on the weather will not stand serious thought. Lightning is one of the causes of static.



Questions and Answers



B.S.D. (Wanganui): If glue is accidentally put on the enamelled or s.c.c. wire when making a transformer will any damage result?—No.

2. Can a winding be placed on the Loftin White transformer to supply 6½ volts, ½ amp. to a speaker through a dry rectifier?—Yes.

3. What are the specifications?
A.: 32 turns 20 gauge wire. You will need a rheostat to exactly obtain the voltage.

4. Will the L.W. and tuner give distance and volume equal to a 5-valve neutrodyne?

A.: The three-valve Loftin is about equal to a five-valve ordinary neutrodyne.

R.R. (Akaroa): Can a five-valve set be made from a three-valve? Where might the parts be obtained?

A.: A five-valve set can be made, utilising the parts in your three-valves. The balance might easily be obtained from any dealer. If you want a straight five try the shielded five neutrodyne described some time back. Better still, try the B.D. or Hammarlund Roberts, from the 1930 "Listeners' Guide."

WAYBACK (Bay View): How is the salamoniac solution referred to in "Hard-ups" article of June 6 made?

A.: The tablets are bought and dissolved in rain water.

2. Is a malathoid compound essential?
A.: No, but it prevents the acids eating away at the joints.

SNIEDDO (Whangarei): Using 84 turns of 24 s.w.g. wire on a 2in. former tuned with .00035 condenser, at what turn does the neutralising tap come?—About the twenty-third.

2. Using two stages of r.f. shielded in the above secondary coil what is the correct number of primary turns for 201A and 630 valves?

A.: 201A, 15/16; 630, 25/30.

3. Why does the insertion of .0001 series condenser disturb the stability of a four-valve B.D.?

A.: This is not unusual. It alters the grid to earth capacity and introduces damping.

TWO-STROKE (Gisborne): Can you suggest a remedy for motor-boating in my seven-valve R.C.C. set? I am using as second audio Philips 630, as first audio 615, and as detector 609.

A.: You have far too much amplification; 615 should be in the detector socket. 609 first and second audio. You may have trouble in the resistance units. You would have to test for this by taking voltage readings at various points.

TERMINAL (Dunedin): I can bring in morse stations on my short-

wave adapter, but nothing else. The set will not oscillate on some of the coils.

A.: Increase the number of turns on the reaction coil.

2. When the end of the grid-leak is touched there is a terrific hum.

A.: This is quite a normal state of affairs and shows that the audio end is in order.

3. In a theoretical diagram the secondary condenser goes to the secondary coil end of the grid condenser, but on the wiring plan it connects to the other end.

A.: The theoretical diagram is quite correct and is always published as a check on the lay-out diagram, in which there is always a possibility of a mistake.

4. Would a turn more or less than 150 on the radio-frequency choke affect its efficiency?—No.

5. The valve of the adapter is slow to light up compared with those in the receiver.

A.: If it is the same make, look to your filament extension lead. If they are of ordinary flex and are connected properly everything is in order, but if there is any material resistance in the connection it is going to have a big effect upon the voltage and consequently will impair the working of your receiver. Are you quite certain you have the filaments connecting into the right pins? If you had them going to filament and cathode you would get just half the voltage. This would cause the symptoms you speak of.

L.B. (Christchurch): How many car batteries would a 3 to 6-amp. charger described in the "Record" charge at one time?

A.: If you used the 6-amp. rate with 14 gauge secondaries you could charge two batteries in parallel. If you increase the secondary voltage to 12 you could then charge two in series.

2. How many 6-volt batteries each 30-amp. hours would it charge at one time?

A.: It all depends upon the winding. You can wire the secondary to take any number of batteries.

P.K.D. (Oamaru): Would a double aerial 100 feet long and 40 feet high be superior to a single-wire aerial of the same dimensions?—No.

2. Are two ground wires an improvement?

A.: Yes, but they should be as short as possible.

3. Does a small dynamic speaker require as much power as a good cone speaker?

A.: A cone speaker does not require any field current to energise it, whereas the dynamic speaker does. As far as sensitivity is concerned there should be little difference.

V.A.T. (Kaponga): I am not clear about the use of a super heterodyne from an outside aerial. I recently purchased a loop, and it was not nearly as sensitive as the aerial.

A.: There is no question that an outside aerial is more sensitive than a loop, but the fact of the matter is that the regulations forbid the use of certain super heterodyne receivers with anything but a loop. The model to which you refer, we are informed, has been passed by the P. and T. as suitable for use with an aerial. For best results this should be 50 or 60 feet.

A.S.L. (Taumarunui): I wish to re-new my valves and would like to know if I can improve upon the combination already in the set.

A.: You cannot; use the same make and the same type of valves.

2. Can a screen grid valve be introduced?

A.: No, it would not be worth the expense of redesigning your set.

R.E.T. (Whangarei): Does the enamel on aerial wire affect the pick-up of signals? It occurred to me that it was an insulator.

A.: It is not an insulator against high frequency current, and by preventing corrosion is definitely superior to the ordinary type of wire. We will have an article on this subject in a fortnight's time.

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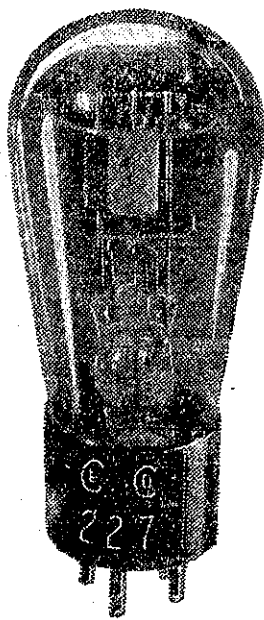
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ANNOUNCEMENT
THIS WEEK**

Coming by any mail now.—7th ed. "Radio Amateur League's Handbook" (Handy's). Most thorough revision since 1926. Old material entirely scrapped. Newest dope for old amateurs and beginners alike. Beginners will get latest in low power transmitters and simple receivers.—How to get started as an amateur, etc.; how to build, adjust, and operate their stations. Old Hamites will get latest on S-G receivers, stable transmitters, dynatron and other frequency measurement apparatus; latest on radio-telephony and antenna feed systems. More than ever you need this handbook. It will be a wonderful production. We will have to cable for more supplies. Booking heavily now. Get in early. Post your 5/3 now and make sure of not having to wait.

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YOUR radio receiver is dependent on the valves you use for correct reproduction of broadcast programs. A good set deserves good valves—and they are the least expensive part of your radio enjoyment. When valves are such an important item you cannot afford to take a chance on inferior brands. Try a complete set of CeCo Valves and listen to the difference in clarity and tone quality. CeCo Valves have longer life.

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RADIO VALVES

Write to-day for free booklet "R"
Bond & Bond Ltd., P.O. Box 331, Auckland.

2. My set works better with the aerial and earth wires reversed. Am I doing any harm?
A.: No. Yours is not an isolated case.

BUNG (Waikato): Can the a.f. amplifier be equipped with jacks so that the detector one or two stages of amplification could be used as well?
A.: Yes, but you might produce audio oscillation through complicating the wiring.

2. Would the amplifier be suitable for a 5-valve set?—Yes.
3. What ratio of audio transformer would you recommend?
A.: 3:1.

4. Would it operate with any type of detector or tuning circuit?
A.: It will operate with any desired amount of radio frequency amplification with either leak or power detection.

5. What type of r.f. amplification would you recommend for three-valve sets?
A.: A three-valve set would be one r.f. detector and one audio. Note: Your amplifier is not biased and this is a bad mistake. Break the connection between the grid return and A— and insert a "C" battery, with the negative toward the transformer.

ELECTRON (Oamaru): Would you give me the data for coils for .00025 variable condenser to cover the 10 to 15 metre band?
A.: A special article appeared on this subject a little while back. You will need a smaller capacity than .00025 to operate successfully on that band.

2. Has Mack's Addaphone been tested?
A.: Yes, about 12 months ago we had a laboratory account of it.

3. Is an adapter worth the outlay from the point of view of entertainment?
A.: Yes, a considerable amount of amusement can be had from listening on short wave, and an increasing large amount of important broadcasts are taking place on low-wave lengths.

4. Are there are stations other than Morse between 10 and 15 metres?—No.

5. Will the enclosed diagram if made up give good results?
A.: Yes, it is an ordinary Reinartz circuit.

6. Is a log of 53 broadcast stations poor?
A.: It depends on what strength they have been logged. If it is in the centre of the town then it is quite good.

P.R.S. (Auckland) asks several questions concerning our articles on d.c. mains eliminators, but a few of the points were explained in the last instalment which he had not seen at the time of writing. Regarding the series—paralleling of valves; this is quite in order, and the choke to suit these could be made with

34-gauge wire, with a 1in. core, or the choke can be purchased ready made. Regarding the grid bias system, these have been fully dealt with, and of the two systems, that marked (a) is probably the better. The resistance can be varied as suggested. Screen grid valves introduce limitations, but these may be overcome with proper planning on the lines indicated. If experimenters get two or three straight r.f. stages going well, they can then experiment with the s.g. valve. The series parallel arrangement should not introduce hum.

F.S.J. (Tinwald).—During a recent hail-storm a clicking noise developed in my set. On touching the lead-in wire I received a violent shock. When I dis-

AN increasingly large number of correspondents are sending envelopes and requesting that we forward them information through the post. Except under exceptional circumstances, we will not do this. Our service is maintained through the paper. We would, too, remind inquirers that a coupon taken from the "R.R." must accompany every question or series of questions.

connected a series of sparks jumped from the wires to the pliers about an inch away. What is the cause and remedy?

A.: It appears that your aerial was highly charged by atmospheric electricity during the storm. You should have had a lightning arrester in the circuit, as you are running a grave danger of not only ruining your set, but incurring bodily harm. At the same time, examine the aerial, and see that it cannot establish contact with the electric light mains of any power wires.

2. Is mine a good set?
A.: Yes, it is first grade. A laboratory report appeared a short time back.

3. Can I make my set suitable for receiving short as well as long-wave?
A.: Yes, you can either purchase or make a short-wave adapter. One was described in the 1930 "Guide."

BOB (Wellington): At times 2YA breaks through in various places on my 7-valve set. Is this a peculiarity of the station? It does not continue for long and there are no symptoms. Two of the screen grid valves do not light as brightly as the others.

A.: It is certainly not a peculiarity of the set and it may be due to a defect in the particular set you have. Have the voltages of your screen grid valves tested. Again, it may be due to waves reflected from nearby objects, but this is a rather fantastic explanation.

VALVES (Christchurch): Can my set using two 245 valves be altered to take two 250?

A.: Yes, a set-builder could do the job for you, but it would be fairly costly.

F.R. (Petone): What station should I be able to receive on my 4-valve set?
A.: You should get good reception from Australian stations. 2FC and 2BL should be particularly good and there should be a reserve of power after about 10 o'clock at night.

Would an aerial 70ft. long and 30ft. high running over an iron roof account for poor reception?
A.: Yes, your aerial is not a good one. The height is only the difference between your roof and the aerial wire.

3. The earth disconnected from the set makes very little difference to reception.
A.: This is not unusual in a.c. sets.

F.N.K. (Dunedin): I have two aerial masts, one 43 feet and the other 40 feet high. I am using 60 feet of aerial wire and 40 feet of insulated lead-in. Would it be advisable to lower one mast to 30 feet?
A.: We can see no point in your low-

ering the mast. It would not improve matters.

2. What is the correct length of aerial to use, single wire for best results?
A.: A total length of 70 or 80 feet is ample.

3. Can phones be connected to my set and what would be the advantage of using them?
A.: The advantage of phones is convenience only. On modern sets they are of little use to listen to weak stations for the noise is usually in an overwhelming proportion to the signal strength. They could be added to your set by taking a lead from the voice coil of your moving coil speaker.

4. When will the 1931 "Guide" be available, and what will be the price?
A.: We are hoping to have the "Guide" available in the beginning of April. Price 2/9.

The Great Yacht Race

OWING to the resourcefulness of the National Broadcasting Company and the Columbia System, American audiences (writes the Washington correspondent of London "World-Radio")

received a remarkably fine account, episode by episode, of the America Cup races. Never before was such interest taken in an international sporting event as in Sir Thomas Lipton's gallant attempt to lift "the old mug." The major broadcasting companies used every mechanical and ingenious device possible to bring a vivid running description of the races to every American home possessing a wireless set, and with complete success.

Ten-minute descriptions of the races at twenty-minute intervals were given every day that Shamrock V and Enterprise sailed the course. What was virtually a floating broadcasting studio was set up aboard the U.S. cruiser Kane. Microphones were placed at points of vantage on the deck, and the cruiser steamed with the racers on the starboard side. The U.S. coast-guard cutter Champlain, similarly equipped for wireless, covered the port side, while overhead radio announcers gave panoramic broadcasts of the races from the dirigible Defender as they surveyed the thirty-mile triangular course. A fifty-watt short-wave transmitter on the Kane relayed the description of the races to a land receiving station, which, in turn, transmitted the account to the major networks.

Announcers in the airship used a transmitter on the Kane relayed which had a range of twenty-eight miles. A total weight of 600 pounds was allowed for announcer, engineer, and equipment.

LISTENERS must attach this coupon to all queries sent to the Technical Editor (Box 1032, Wellington). Questions arriving without it are likely to go astray or be delayed.

I HAVE just received a letter from Mr. M. Nakamura, Japan, and he gives some interesting sidelights on DX in Japan. I sent him a copy of the "Radio Record," and he was very interested in the way broadcasting was controlled here in New Zealand, and he also was very interested in the way the "Radio Record" controlled the DX Club with the necessary information DX enthusiasts required. He states there are two types of radio broadcasting in China—the Government and privately-owned ones. He states the Government stations are regularly on the air, and the private ones come on at any old time. The Chinese stations that are regularly on the air are COMK (410 metres), COHB (445 metres), COTN (480 metres), COPK (320 metres). The following Chinese stations have gone off the air:—KRS, SSC, GOW, NKS, CRC, CEC.—S. Ellis (Okato).

Name of set
Number of Valves
Name
Address

Nom de plume
To be kept in subsequent inquiries.

Date
Please Note:—

(1) Be specific and brief, tabulating, if possible.
(2) Write legibly, and on one side of the paper.

(3) We do not design circuits, but accept suggestions for feature articles.

Solving trouble, as different from advice, is difficult by correspondence and while letters are given every consideration, answers are not necessarily correct—they are only our opinion based on the matter supplied, which may be quite inadequate. Intricate and involved specifications cannot be supplied without a specialist's fee.

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As an amplifier the directly coupled Loftin-White system has aroused world-wide interest. Commencing in America with the original researches of two young radio engineers, Loftin and White, published in "Radio News," interest has spread; Australia, shortly afterward followed by New Zealand, were soon to realise its possibilities and published descriptions led to a period of construction unparalleled in recent years. Probably its simplicity, faithfulness in reproduction and cheapness made it admirably suited to the amateur constructor and the surprising fact was made known shortly after its appearance in this

N.Z.'S OWN RADIO BOOKSHOP

The TE ARO BOOK DEPOT, Wellington.

Booking orders now—"Handy's Handbook," 7th edition expected shortly, 5/3 posted.

JUST ARRIVED—Prices include postage:

"Radio Engineering Principles," by Lauer and Brown, 19/6.

"Collins' Wireless Diary, 1931," 4/- posted (Amateurs and Broadcasters—350 pages useful information).

"1001 Radio Questions and Answers, 1930," 2/9.

"Short-Wave Manual, 1930," 2/9.

"Radio Trouble Finder," 1/10.

Above published by "Radio News" Co.

"Radio Amateur Call Book," June, 1930, 5/3

"Projection Engineering"—a monthly, 21/- per annum.

"Radio Manual," by Sterling and Kruse, latest edition, 26/-.

"Elements of Radio Communication," by Morecroft, 19/-.

"Thermionic Vacuum Tube," by Van der Bijl, 26/-.

"Radio Receiving Tubes," by Moyer and Wostrel, 14/-.

"Practical Radio Construction and Repairing," by Moyer and Wostrel, 14/-.

"Electric Wiring," by Ibbetson, 10/-.

"How Radio Receivers Work," by Roberts, 8/-.

Also all leading English, American and Australian wireless magazines.

Mr. F. W. Sellens' list of Shortwave Broadcasting Stations, 7d.

Last year's "N.Z. Radio Listeners' Guide" still selling well, 2/9.

"Modern Wireless," 1/7.

"All About the All-Electric," 1/7.

"N.Z. Radio Handbook Annual, 1930," 2/9.

(contains list of the World's broadcasting stations).

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Systems Using Screen-Grid R.F. Stages

Loftin-White Series

A unique series of articles has been arranged. These will probably extend over five weeks, the topics for each week being:—

1st Week—General introduction and construction hints.

2nd Week—The "Loftin Three." Using the existing amplifier but rebuilding it into a compact set with one radio stage.

3rd Week—The "Loftin Three." The American system, for those who do not wish to interfere with the existing amplifier.

4th Week—The Revised "Loftin Three," for those who wish to start from the beginning and incorporate certain alterations in the value of the amplifier resistances.

5th Week—The "Loftin Four." Various adaptations of the amplifier and the use of the power pentode.

country that first the resistances and then the valves were unobtainable. Judging by the correspondence we have received, constructors have been singularly fortunate for the complaints could be numbered on the fingers of

fort has resulted finally in a workable receiver which is both stable and sensitive. This radio amplifier about to be described has been applied to various commercial receivers with considerable success. Outstanding in this field are the midget sets, many of which are equipped with the Loftin White system.

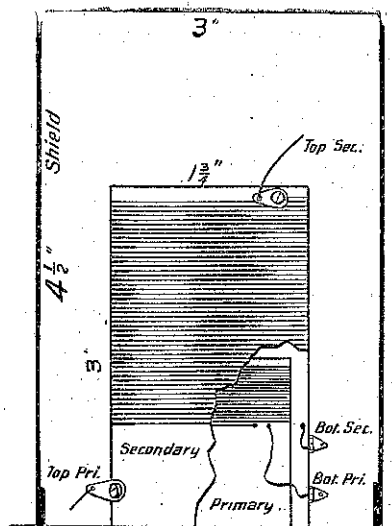
Although technical data for the construction of the radio stages has been to hand for some time, we have refrained from publishing it until our experiments satisfied us that it could be undertaken with confidence by the average constructor. The result has been that now we are in a position to

publish a unique series of articles which should fill the needs of constructors who have already constructed their amplifiers, those who, although they have constructed, will not mind rebuilding, using the same parts, and those who wish now to build the complete amplifier and tuner for the first time. There is little difference in the efficiency of the system, though the complete model made up with the adaptation in the resistances is perhaps slightly the better, though the difference is not sufficient to warrant the owner of a Loftin-White dismantling his set and discarding some of the resistances.

Some will be debating the question as to the number of radio frequency stages they will add. That must be decided by their particular requirements. The one valve, as in the Loftin-Three, will give excellent results from the local station and from the best of the New Zealand stations. It is not primarily designed as a distance-getter and although many will claim that it is good on Australian stations, it must be regarded primarily as a New Zealand set. The extra stage of radio that will be described in the course of these articles under the name of "The Loftin-Four" is the one for d.x.ers to construct. Other radio valves can be added so that the experienced experimenter may obtain all the amplification he requires. Selectivity is a feature of the set.

No Inferior Parts.

IN setting out the construction of any of the circuits one must be guarded against the introduction of inferior parts. Watch particularly the resist-



one's hand. And these invariably were traced to neglect of instructions or defective resistances, particularly the .5 megohm leak.

It is only comparatively recently that the construction has spread farther afield, and we notice that foreign journals, particularly the French, are giving it attention.

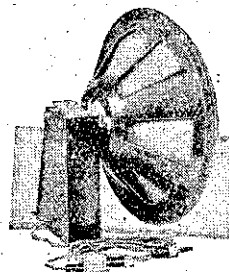
No sooner was the amplifier popular than inquiry was made to its possibilities in a multi-valve receiver. For some considerable time the system defied attempts to add a suitable tuner and in some quarters it was actually condemned. It was unstable when associated with certain detector systems and so it was considered that its usefulness would end as a gramophone and local station amplifier.

The application of considerable ef-

THE LOFTIN THREE

INCORPORATES THE LOFTIN-WHITE SYSTEM.

THEREFORE SEND TO US FOR PARTICULARS OF PARTS.



We have cabled to Australia for Special Shields, Coils, etc.

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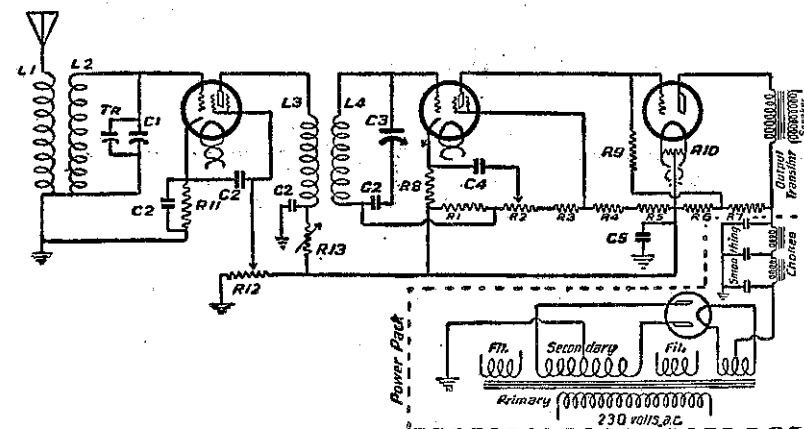
ances, as their accuracy will greatly affect the results. There is no need to worry about first-class articles. Pay a good price and obtain the best. It will bring in good results and be much cheaper in the end. Take care of the shielding. It is simple, though if not adequate will introduce instability and dissatisfaction. It will be noticed that the coils and the under wiring are alone shielded, the system of

Loftin-Three

List of Parts

- 2 R.f. transformers (specifications in text), L1, L2, L3, L4.
- 2 Special shields, 3in. x 4½in.
- 2 UY sockets.
- 2 224 type valves.
- 2 .0005 mfd. condensers, C1, C8.
- 1 Balancing condenser, Tr.
- 1 Drum dial and connector.
- 4 .5 mfd. 500 test condensers, C2.
- 1 100,000 ohm. potentiometer, R12.
- 1 2000 ohm variable resistance, R13.
- Amplifier as before.

shielding being different from that before described in these columns. This is strictly in accordance with modern practice and not only is it more simple than the older style of having shield boxes, it is decidedly more satisfactory. But take care that the shielding aluminium is sufficiently heavy. Only recently we learned of the difficulties that an experimenter had had through not using sufficiently heavy aluminium. No matter what he tried the set would



not stabilise, and finally he used heavier shields, with the remarkable results that the set became stable and workable. Aluminium not lighter than 18 gauge should be used, and foreseeing the difficulties in coil covers we have made arrangements whereby coils will be available from dealers. Their cost will be very small.

It need not be stressed that the condensers need be of the right working test; for the average constructor knows enough about the game to realise that he is asking for real difficulties if he neglects this precaution. Many a valve has been blown out and not a few power packs burnt out because of the neglect of this simple precaution. It is wise to test them before building up.

Making the Coils.

WE have now traversed the main points to consider before the receiver is tackled. The moral is obvious and the foregoing remarks are intended

not to frighten away the constructor but to impress upon him the very real need to follow the instructions and the specifications to the letter. Odd parts will frequently do in constructing quite good receivers of the ordinary type, but not the Loftin-White. Although we publish the first circuit of our series this week, we do not advise anyone to attempt to make up until the layout description is given week. We will, however, describe the coils for those who wish to make them. They must be carefully matched, as one-dial control is used, though two dials can be employed if preferred. When the three coils are to be used in the "Loftin Four," the greatest of care must be taken in their winding or they will not be matched. Make a winding jig and take a little time and there should be no difficulty.

Here are the specifications:—

First coil: Primary, 60; tap, 30; secondary, 90.

Second coil: Primary, 65; secondary, 90.

Third coil: Primary, 65; secondary, 90.

Coil formers, primary 1in. and secondary 1½in. Wire, primary 34 gauge d.s.c., secondary 26 d.s.c. The tapping on the aerial coil provides for a more selective circuit than would otherwise

be the case. It may be necessary to vary the number of turns on the primaries between 65 and 80 to obtain the best results. If the set oscillates on full strength the number of turns on the primary of the radio transformer or transformers must be lessened. A large number of turns on the primaries increases the sensitivity, but makes the set prone to oscillation when pushed.

There is little instruction necessary before one can construct the coils. That is self-evident when the diagram accompanying is studied. Do not at-

Change in 1YA's Frequency

FOR some time past listeners into 1YA have been inconvenienced by heterodyning caused by an unknown overseas station. To avoid this interference, the P. and T. Department has approved of a minor adjustment to the wavelength, which has now been dropped from 333 metres to 329 (approximately) or 910 kilocycles.

tempt to alter any of the specifications given for the coils. A small former is necessary so as to reduce the field created by the current in the coil; furthermore, a large former will not fit in the shield cans. The wire has been selected for many reasons, and constructors will be well advised to use that specified if good results are to be obtained. Both coils must be wound in the same direction.

If the three-valve set is to be used two coils are necessary, but for the larger set three. Further stages require a proportionate number of similar coils.

In next week's article we are presuming that the amplifier is ready-made, but that the constructor has no objection to rebuilding it.

HAVE you renewed your subscription to the—
"Radio Record and Electric Home Journal"?

UNPACK A JEWEL LOFTIN-WHITE For your own Home

Is there anybody who has not heard this amplifier? Best be frank about it. In the eager vim of an agreeable radio business some must overlook something. Listening to a Loftin-White on local broadcast gives impressive tone to the programme. It will take up little room in a large gramophone cabinet, or fit neatly beside small and portable outfits. Immediately the gramophone is modern and valuable with electric pick-up. If you desire this impressive amplifier you can have it—complete—in parts—or an approval. The guarantee is a royal guarantee. It can't go wrong. It is built in New Zealand. It can't go wrong.

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Feature Peeps at Future Programmes

SUNDAY

1YA Notes

THE service to be conducted at the Auckland Methodist Central Mission by the Rev. C. G. Scrimgeour will be relayed. The song leader will be Mr. T. T. Garland. During the programme following the church services the Studio Trio will be heard in several numbers, including a pianoforte solo, "Rustling Woods," by Mr. Eric Waters, and the violin solo, "Mazur," by Mr. Whitford Waugh. Miss Audrey McDonagh, mezzo-contralto, and a member of the 1YA Broadcasting Choir, will be making her first appearance at this studio as a solo vocalist. Mr. Len Barnes, baritone, will be heard in three numbers, two of which are of particular interest, "The Three Roads," and "When the King Went Forth to War," both by Koene-mana.

From 2YA

THE evening service at St. Andrew's Presbyterian Church will be relayed. The preacher will be the Rev. R. J. Howie, B.A., and the organist and choirmaster Mr. Frank Thomas. At the conclusion of the church service a studio concert will be given by the Wellington Municipal Tramways Band and assisting artists.

Christchurch Topics

VEN. ARCHDEACON P. B. HAGGITT will be the preacher at St. Mary's Anglican Church on Sunday evening, when the service will be broadcast. Mr. Alfred Worsley will be organist and choirmaster. After the church broadcast a relay of the concert to be given at Waimate will follow.

4YA Broadcast

THE evening service in the Baptist Church, Hanover Street, will be on the air, the Rev. B. S. Tuckwell being the preacher. A relay from

Waimate will follow the church broadcast. The concert at Waimate will be given by the Waimate Silver Band, under the conductorship of Mr. H. F. Vincent.



LESLIE FLEMING.
A singer well-known to 3YA listeners.
—Stefano Webb, photo.

MONDAY

Notes from Christchurch

THE second of a series of talks on "Treatment and Care of the Hair" will be given from 3YA by Mr. L. Brice, who is an expert on the subject.

The band programme will be provided by the Woolston Band, under Mr. R. J. Estall. There will be some splendid numbers: "Mephistopheles" and "Zampa" overtures, "Selections from Mozart," "Love's Old Sweet

Song," Coleridge Taylor's "Suite de Concert," and the march "The Laurel Wreath." Mrs. Salkeld, who will render several numbers, will be remembered as the soprano soloist in "Merrie England" when presented in the Civic Theatre by the Christchurch Harmonic Society.

Items from 2YA

AT 7.40 Mr. C. A. L. Treadwell will give another of his interesting talks on "The Rationalisation of Industry."

The 2YA concert will feature the Ariel Singers and the Orchestra in a classical programme. Miss Jeanette Briggs, the soprano of the quartet, includes in her numbers "The Flutes of Spring," by Laurel Blane, a new composer. A feature of the orchestral items will be the suite for orchestra from Grieg's "Sigurd Jorsalfar," and an orchestral arrangement of German Lieder, by Tobani, this being the first time that these numbers have been given from the studio. Miss Hazel Hardwicke, a brilliant young pianiste, will play Friedman's "Viennese Dance" and Chopin's "Revolutionary Study."

This programme will be interrupted at 9 o'clock to permit Dr. John E. Borland, Mus. Bac., Trinity College Examiner, and late Educational Adviser to the London County Council Schools, to give a talk on "Foundations of Musical Training."

4YA's Programme

SOME brilliant artists are to appear this evening, and are certain to present one of the finest programmes yet broadcast from Dunedin. The elocutionist will be Miss Kathleen Quaife, and all the instrumental items are being provided by the Studio Trio and Mrs. C. Drake, studio pianiste. Mr. F. C. Cooper sang at the opening of the new studios, and on that occasion presented Wagner's "Star of Eve" with orchestral accompaniment. His voice is a rich, deep bass of exceptional quality. Miss Mary Pratt, contralto, is one of the finest contraltos in the Dominion, and her numbers for this evening include "Ohe Faro" and "Softly Awakes My Heart." One of the finest tenors in the city, Mr. Ernest Drake, will sing among other items, "English Rose," from German's opera "Merrie England." Two operatic extracts will be played by the Studio Trio, and Mrs. Drake, the studio pianiste, will present "Andante Capriccioso." Mr. G. Salmon, baritone, has included on the programme as one of his items, Molloy's ballad "Rose Marie." These performers, with the addition of Miss Molly Vickers, who is one of our finest broadcasting sopranos in Dunedin, ensure that listeners will hear a programme of outstanding merit.

TUESDAY

Auckland Notes

THE relationship of diet with the health of mind and body is a very

The Week

Aeolian Orchestra

1YA, Tuesday

Royal Music Society

3YA, Wednesday

Male Voice Choir

3YA, Thursday

Harmonic Society

2YA, Saturday

important subject in these days of varied foods, and one can gain a great deal of instructive and interesting information when listening to people who have made a life-long and complete study of the question. At 3.15 p.m. Mrs. Les Crane will continue her talks on this subject. Motor-car owners appreciate the talks given by Mr. Rod Talbot on alternate Tuesday evenings. Mr. Talbot will appear this evening at 7.40 with another of his helpful lectures on motoring.

Auckland possesses many fine musical organisations, and one of the foremost is the Aeolian Orchestra, conducted by Mr. Gerald T. Lee. Under his very competent baton is an enthusiastic band of musicians who have given much enjoyment to their many patrons in the past. This will be the first concert to be broadcast by this orchestra, and nothing has been left undone to make the performance an outstanding one for listeners.

The programme to be supplied is one that will appeal to all. Two members of the orchestra will appear as soloists, Mr. G. Carder playing the piccolo number, "The Comet," with orchestral accompaniment, and Mr. W. Debenham playing a very little-known instrument, the glockenspiel, in a number entitled "The Butterfly." The vocalists for the evening are already well known to 1YA listeners, and they are extremely popular.

Selections from 2YA

THE programme to-night, with Lad Haywood, Mrs. R. A. Sloan, and Andrew Bolton (in yodelling solos with banjo accompaniment), will be a very bright one.

4YA Items

BRIGHT band selections, some of which have never appeared before on band programmes in New Zealand, are to be presented by the Dunedin Tramways Band at 4YA. Of particular interest in the selections will be a suite by Rimmer. Band arrangements and compositions by this well-known writer are always appreciated by listeners, as well as being a pleasure to the bandsmen themselves. A fantasia by Greenwood, another very fine English composer, entitled "A Summer's Day," will be played, and two new marches, "Friendship" and "Badge of Honour," are also on the programme. A new radio artist in the person of Miss Felchley, soprano, will be heard. She is the possessor of a clear voice of good quality, and has a keen understanding with regard to interpretation.

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This Department is under the supervision of one of the finest radio-tricians in New Zealand, and we are in a position to undertake all manner of repairs, adjustments and reconstruction work on any piece of radio apparatus, either for the trade or private owners. No job too small, nor too large. No experimenting by inexperienced amateurs.

L. B. SCOTT LTD.

Manchester St., CHRISTCHURCH.
"The Big Radio Store."

for SERVICE

WEDNESDAY

1YA Features

FROM 4.45 the results of the Otahuhu trotting meeting will be broadcast. There is no one who cannot benefit one way or another by listening to Mr. Norman Kerr's talks on Physical Culture. These are given on alternate Wednesday evenings at 7.40.

This evening's programme will be presented by the Auckland Piano Students' Association.

Christchurch Notes

FOR a period of forty minutes relay will be carried out from the Civic Theatre, where the Royal Christchurch Musical Society will be giving an entertainment. Owing to copyright restrictions the remainder of the programme cannot be broadcast.

The portion to be relayed will be a cantata, "Life," a poetical work by Wordsworth set to music by Mr. Arthur Lilly, A.R.C.O., the well-known Christchurch musician. The cantata is claimed to be a very fine work, and will be presented by a chorus of 200 voices and full orchestra under the conductorship of Mr. W. H. Dixon, L.R.A.M., A.R.C.M.

The balance of 3YA's programme, which will be presented from the studio, will be of a miscellaneous nature, the outstanding item being the first appearance of Miss Cicely Audibert, a brilliant singer.

Features from 4YA

THE Home Science Extension Department of Otago University will broadcast a talk at 3.15 on "Meals That Keep the Family Fit—Breakfast and Lunch." At 7.15 Mr. J. Beaton will speak on "Quality of Milk and Cream." Both talks are under the auspices of the 4YA Primary Productions Committee.

At 8 o'clock a relay of the concert to be given by the Dunedin Returned Soldiers' Choir at the Dunedin Town Hall will be conducted. The programme will be of great interest to all listeners, as the choral works include many popular part songs.

THURSDAY

Budgeting

THE home science talks from 1YA, 2YA, and 3YA will be on "Budgeting, or Managing the Family Income."

1YA Notes

DR. E. B. GUNSON has consented to broadcast a talk which he recently gave to the Civic League on "Pure Foods," a subject of great importance to the health of the community.

The New Clarion Quartet, consisting of four of Auckland's leading singers, who are in great demand in both city and country, will be singing for 1YA this evening. Miss Lillian Woods, the soprano, was soloist last year for the performance of "The Messiah," given by the Auckland Choral Society, while Miss Beryl Smith is outstanding as a contralto. The tenor of the combination is Mr. Lambert Harvey, who was considered to be one of the leading tenors of the North of England. He has sung many times for the leading musical societies of Auckland and elsewhere.

The possessor of a pure bass voice, Mr. Duncan Black broadcasts particularly well. From four such singers, listeners will hear some excellent singing, both solos and concerted numbers. Mr. Chappell, whose topical talks are always based on important local, national, or international events, will appear on this programme. The 1YA String Octet will provide instrumental music that will enhance an already excellent programme. Dance music will continue until 11 p.m.

Wellington Topics

THE Miramar Silver Band, under the conductorship of Mr. R. A. Sutherland, will give another of their excellent concerts this evening. The band items include a selection from Donizetti's opera, "The Elixir of Love," a humorous, "Buy a Broom," Greenwood's popular waltz, "Queen of Emeralds," and several marches. The cornet solo, "Anstralis," will be played by Bandsman Newton. The soprano soloist, Miss Mackenzie, who is a versatile young artiste from Palmerston North, in which town she is very popular, specialising in Scottish ballads and popular songs at the piano, will be heard to-night. Mr. J. H. Lee is a bass singer with a fine resonant voice and an excellent sense of interpretation, and his items are bound to prove popular. Miss McDavitt, the contralto soloist, is already well known to listeners for her meritorious performances. The tenor soloist will be Mr. Harry Phipps.

Notes from Christchurch

THE talk for farmers will be on "Wood Utilisation," by Mr. W. G. Morrison, Conservator of Forests.

A concert to be given in the Civic Theatre by the Christchurch Male Voice Choir will be relayed.



HOPE ASHER.

A mezzo-soprano whose items from 1YA are always acceptable.

—S. P. Andrew, photo.

This choir, which sings under the baton of Dr. J. C. Bradshaw, is a particularly popular combination. The boy choristers of Christchurch Anglican Cathedral will also be taking part with the choir in numerous glees and part songs. The programme will also include the sea chantey, "Bound for the Rio Grande."

FRIDAY

1YA Jottings

THE British Empire Cancer Campaign Committee in Auckland is working very hard in order to bring home to the public generally the great need for further research and for a clinic to help combat this deadly disease. A series of lectures has been arranged by 1YA in conjunction with the committee and all of these talks are being given by eminent surgeons. This evening Dr. Hardie Neil will be the speaker.

Music lovers who heard the excellent performances given by the Westminster Glee Singers will be interested to learn that one of the talented party, Mr. Bert Skeels, male alto, has settled in Auckland and will make his first appearance at 1YA this evening. He possesses a voice very rare among men. The possessor of a beautiful soprano voice, Mrs. Laetitia Parry has well established herself in the foremost ranks of local singers and for this programme she has chosen the following numbers, "Nay, Tho' my Heart be Breaking," "Pleading," and "The Willow Song."

Mr. and Mrs. J. W. Bailey have had extensive experience on the stage, and their work before the microphone is always very enjoyable. They will be associated in two splendid one-act plays during the evening.

The Studio Trio will provide instrumental trios and solos and included in their numbers will be the violin "Sonata in F" (by Grieg), to be played by Mr. Whitford Waugh and Mr. Cyril Towsey, and 'cello solos will be rendered by Miss Lalla Hemus. The programme will conclude with another interesting gramophone lecture-recital by Mr. Karl Atkinson, being Part 2 of "Voices of the Orchestra—Wind Instruments."

From 2YA

AT 7.40 Mr. Colin W. Smith, of the "Radio Record" will give the fourth of his series of radio talks, his subject on this occasion being "Radio as a Hobby; Construction and D-Xing."

Friday being operative night a suitable programme will be presented. The Orchestra, under Signor A. P. Truda, will play selections from many of the best-liked operas, and a fantasia entitled "Vienna Echoes." The vocal portion of the programme will be given by the Lyric Quartet and Miss Christina Young. Miss Gladys Morgan will play a bracket of two pianoforte numbers and humorous recitals will be given by Mrs. Mark Tonks.

Christchurch Items

WHEN Mr. Selwyn Bruce, a well-known identity of Christchurch, broadcast a talk concerning the early history of that city, he undoubtedly kept the rapt attention of every listener, and he will do so again this evening when he speaks on "Early Lyttelton and Christchurch." This talk can be expected to be as interesting and entertaining as the first. A very attractive concert has been arranged.

Scheduled by 4YA

A SPECIAL studio performance by the choir of St. Joseph's Cathedral, Dunedin, will be broadcast. Dunedin is fortunate in possessing a choir of such perfect balance and exceptional quality, and credit

is due to the conductor and organist, Mr. A. Vallis.

Included among the many diversified choir items will be a "Gregorian Chant" an item of a type which will be new to most listeners. Among the other items will be numerous duets, including "The Miserere" sung with



PHYLLIS TYE.

An Auckland pianist who, with her sister, Edna Tye, often broadcasts from 1YA.

—S. P. Andrew, photo.

chorus, "The Marseillaise" sung as a solo in French and items by Mr. A. Patterson who will recite.

SATURDAY

Auckland Programme

THE station will go on the air at approximately 11.45 to broadcast the results of the Otahuhu Trotting Club's summer meeting. Gardening enthusiasts will be interested in the series of talks that 1YA has arranged for Saturday evenings—this evening's talk being given by Mr. A. E. McMahon on "Chrysanthemums."

Mister Ree has firmly established himself as an entertainer. No one ever tires of the magician's art, and this performer has the happy knack of obtaining excellent results over the air. His performance this evening will be of the same high standard as previously. Madame Dorothy Cronin, one of Auckland's leading sopranos, who recently appeared with great success for the Auckland Choral Society, will give listeners the opportunity of again hearing her cultured singing. A good singer of rollicking songs, Mr. Arthur Wright, bass-baritone, has chosen for this evening three old favourites. Mr. T. T. Garland will again give some of his inimitable humour and orchestral selections will be played by the 1YA String Octet.

Items from 2YA

THE Wellington Harmonic Society's final concert of the 1930 season will be relayed. An excellent programme of part songs, choral and solo items has been arranged.

A feature of the programme will be Gaines's arrangement of Rubinstein's "Seraphic Song" for choir, with violin

(Continued on page 29.)

Full Programmes for Next

[Copyright.—These programmes are copyright, but individual daily programmes may be published on day of performance.]

Sunday, November 16

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, NOVEMBER 16.

- 8.0 : Afternoon session—Selected studio items, including literary selection by the Announcer.
 6.0 : Children's song service, conducted by "Uncle Bert."
 6.55 (approx.) : Relay Divine Service of Auckland Methodist Central Mission from Lewis Eady Hall. (Preacher, Rev. C. G. Scrimgeour; Song Leader, Mr. T. T. Garland).
 8.30 (approx.) : London Symphony Orchestra, "Chanson de Matin" (Elgar). Mezzo-contralto—Miss Audrey McDonagh, (a) "Blue Bells" (Phillips), (b) "Windy Nights" (Lubbock).
 Studio Trio, "Zweites Trio, Op. 80" (First movement) (Schumann).
 Baritone—Mr. Len Barnes, "Fifinella" (Tchaikowsky).
 Studio Trio, "Largo" (Handel).
 Choral—Utica Jubilee Singers, (a) "Angels Watching Over Me," (b) "Climbin' Up the Mountain."
 Piano—Mr. Eric F. B. Waters, "Rustling Woods" (Liszt).
 Mezzo-contralto—Miss Audrey McDonagh, "Beloved, it is Morn."
 Studio Trio, "Fourth Movement, Zweites Trio" (Schumann).
 Baritone—Mr. Len Barnes, (a) "The Three Roads" (Koenemann), (b) "When the King Went Forth to War" (Koenemann).
 Violin—Mr. J. Whitford Waugh, "Mazur" (Mlynarski).
 London Symphony Orchestra, "Chanson de Nuit" (Elgar).
 9.30: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, NOVEMBER 16.

- 8.0 : Afternoon session of selected gramophone items.
 6.0 : Children's Song Service, conducted by Uncle George and assisted by Khandallah Presbyterian Sunday School Choir.
 7.0 : Relay of Evening Service from St. Andrew's Presbyterian Church. Preacher: Rev. R. J. Howie, B.A. Organist and Choirmaster: Mr. Frank Thomas.
 8.15: (Approx.)—Studio Concert by the Wellington Municipal Tramways Band (Conductor, Mr. E. Franklin), and 2YA Artists.
 Overture—Band, "The Magic Flute" (Mozart).
 Mezzo-soprano—Miss Ailsa Dillon, "Sing Little Bird of the Dawn."
 Cello—Pablo Casals, "Melody in E Flat" (Tchaikowsky).
 Bass-baritone—Mr. George Neel, "Though Faithless Men" (Halevy).
 Selection—Band, "Un Balla Maschera" (Verdi).
 Contralto—Miss Dorothy Spiller, "Litany" (Schubert).
 Piano—Mr. Norman C. Izett, "Waltz in E Major" (Moszkowski).
 Waltz—Band, "Senta" (Rimmer).
 Weather report and station notices.
 Mezzo-soprano—Miss Ailsa Dillon, (a) "Gossiping" (Dodge); (b) "The False Prophet" (Scott).
 March—Band, "The Burning of Rome" (Ball).
 Bass-baritone—Mr. George Neel, (a) "The Snowy Breasted Pearl" (Robinson); (b) "The Vagabond" (Ireland).
 Waltz—Band, "Love's Dream After the Ball" (Morelli).
 Contralto—Miss Dorothy Spiller, "Verdant Meadows" (Handel).
 J. H. Squire's Celeste Octet, "Memories of Mendelssohn" (arr. Sear).
 Patrol—Band, "Jamie's Patrol" (Dacre).
 March—Band, "The Gladiator's Farewell" (Blankenbury).
 God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, NOVEMBER 16.

- 8.0 : Afternoon session—Gramophone recital.
 5.30: Children's Song Service by Children of Anglican Sunday Schools.
 6.15: Studio chimes.
 7.0 : Relay of Evening Service from St. Mary's Anglican Church, Merivale. Preacher: Ven. Archdeacon P. B. Haggitt. Organist and Choirmaster: Mr. Alfred Worsley.
 8.15: (Approx.)—Relay through 4YA, of concert by Waimate Silver Band, under the conductorship of Mr. H. F. Vincent.
 God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, NOVEMBER 16.

- 8.0 : Chimes. Selected gramophone items.
 5.30: Children's Song Service, conducted by Big Brother Bill.
 6.30: Relay of Evening Church Service from Baptist Church, Hanover Street. Preacher: Rev. E. S. Tuckwell, B.A. Choirmaster: Mr. H. P. Desmoulins.
 7.45: Vienna Philharmonic Orchestra, "Morning, Noon and Night" (Suppe).
 Piano—Harold Bauer, "Etude in E Flat" (Liszt); "In the Night."
 Choir—Don Cossacks Choir, "Three Folk Songs" (Dobrowen); "How Greatly the Lord is Glorified" (Bortnjansky).
 Instrumental trio—De Groot, Bor and Calve, "El Religario"; Selection of Hebrew Melodies (Padilla, arr. Saunders).

- 8.15: Relay of Concert by Waimate Silver Band, under conductorship of Mr. H. F. Vincent, from Olympia Hall, Waimate. At the piano: Miss Gay Reeve.
 Hymn—Band, "Be by My Side" (Rimmer).
 March—Band, "Torchlight" (May).
 Solo—Mrs. R. Templeton, "My Ships" (Barrett).
 Selection—Band, "Carmen" (Bizet).
 Violin—Mr. J. Hill, "Souvenir" (Drdla).
 Humoresque—Band, "Slidin' Thru' the Rye" (Freeman).
 Solo—Mr. A. Spliers, "Thanks Be to God" (Dickson).
 Waltz—Band, "Desdemona" (Carter).
 Intermezzo—Band (vocal effect Mr. J. Hill), "In a Monastery Garden."
 Recital—Miss A. Meredith, "Little Tan Shoes" (Sullivan).
 Cornet—Mr. H. Vincent, "Debutante" (Clarke).
 Phantasy—Band, "In a Chinese Temple Garden" (Ketelbey).
 March—Band, "Call of the East" (Thomas).
 9.30: God save the King.

Monday, November 17

1YA, AUCKLAND (900 KILOCYCLES)—MONDAY, NOVEMBER 17.

SILENT DAY

2YA, WELLINGTON (720 KILOCYCLES)—MONDAY, NOVEMBER 17.

- 8.0 : Chimes. Selected studio items.
 3.30 and 4.30: Sporting results to hand.
 5.0 : Children's session, conducted by Uncle Jeff.
 6.0 : Dinner music session.
 London Symphony Orchestra, "Czar Sultan" Suite.
 International Concert Orchestra, "Waltz Dream" (Strauss).
 6.12: Tacet.
 6.15: New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg): 1. Ingrid's Lament; 2. Arabian Dance.
 New Light Symphony Orchestra, "Prelude in G Minor."
 6.27: Tacet.
 6.30: New Light Symphony Orchestra, "Peer Gynt Suite" (Grieg): 1. Return of Peer Gynt; 2. Solveig's Song; "Prelude in C Sharp Minor."
 6.42: Tacet.
 6.45: Philadelphia Symphony Orchestra, "Danse Orientale" (Glazounov).
 International Concert Orchestra, "Sari" (Kalman).
 Philadelphia Symphony Orchestra, "March of the Caucasian Chief."
 6.57: Tacet.
 7.0 : News session, market reports and sports results.
 7.40: Lecturette—Mr. C. A. L. Treadwell, "The Rationalisation of Industry."
 8.0 : Chimes.
 This programme will be interrupted at 9 o'clock to permit Dr. John E. Borland, Mus.Bach., Trinity College Examiner, and late Educational Adviser to the London County Council Schools, to give a talk on "Foundations of Musical Training."
 Overture—2YA Orchestra (Conductor, Signor A. P. Truda) "Russian Fantasia" (Moses-Tobani).
 8.9 : Quartet—Ariel Singers, "Sleep, Gentle Lady" (Bishop).
 8.13: Flute duet—Gennin Bros., "Echoes of the Valley" (Gennin).
 8.17: Soprano—Miss Jeanette Briggs, L.A.B. (a) "All Soul's Day" (Lassen), (b) "If I Were a Lark" (Clutsam).
 8.21: Fantasia—Orchestra, "German Liederkrantz" No. 1 (arr. Tobani).
 8.29: Bass—Mr. J. M. Caldwell, "Skye Fisher's Song" (Kennedy-Fraser).
 8.33: Elocution—Mr. F. N. Hastings, "My Friends" (Service).
 8.38: Organ—Quentin MacLean, (a) "Prelude"; (b) "Intermezzo"; (c) "Oriental March" (from "The Merchant of Venice") (Rosse).
 8.46: Contralto—Miss Ngairi Coster, (a) "The Fairy Song" (from "The Immortal Hour") (Rutland Boughton); (b) "The Silver Ring."
 8.50: Tenor—Mr. H. Brusey, (a) "Thou Art Like a Tender Flower" (Liszt), (b) "Go Down to Kew in Lilac Time" (Graham-Peel).
 8.55: Selection—Orchestra, (a) "Meditation" (Tchaikowsky); (b) "Marche Slave" (Tchaikowsky).
 9.0 : Weather report and station notices.
 9.2 : Piano—Miss Hazel Hardwicke, "Viennese Dance" (Friedman-Carter), "Revolutionary Study" (Chopin).
 9.9 : Soprano—Miss Jeanette Briggs, L.A.B. (a) "None Will Know" (Landon Ronald), (b) "The Flutes of Spring" (Laurel-Blane).
 9.13: Band—Garde Republicaine of France, (a) "Hungarian Dance"; (b) "Theme and Variations" (from "The Two Pigeons") (Messenger).
 9.21: Bass—Mr. J. M. Caldwell, "The Peat Fire Flame."
 9.25: Suite—Orchestra, Suite for Orchestra from "Sigurd Jorsalfar" (Grieg, arr. Roberts) (a) "Introduction"; (b) "Intermezzo"; (c) "Triumphal March."
 9.33: Humorous Elocutionary—Mr. F. N. Hastings, "Knocking Down Ginger" (Thomas).

Week-all Stations-to Nov. 23

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- 9.38: Duet—Misses Jeanette Briggs and Ngaire Coster, "Farewell to Summer" (Johnstone).
 9.42: Choral—Russian State Choir, "Storm on the Volga" (Pastchenko).
 9.50: Quartet—Ariel Singers, "Isle of Beauty" (Coleridge-Taylor).
 9.54: Selection—Orchestra, "Hullamzo Balaton" (Hubay).
 10.0 : God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—MONDAY, NOVEMBER 17.

- 3.0 : Afternoon session—Gramophone recital.
 4.25: Sports results.
 5.0 : Children's hour, conducted by "Scatterjoy."
 6.0 : Dinner session.
 Albert W. Ketelbey's Concert Orchestra, "Cockney Suite," Nos. 1 to 4 (Ketelbey): (1) A State Procession (Buckingham Palace), (2) The Cockney Lover (Lambeth Walk), (3) At the Palais de Danse (Anywhere), (4) Elegy (Thoughts on Passing the Cenotaph).
 6.13: Tacet.
 6.15: Albert W. Ketelbey's Concert Orchestra, "Cockney Suite," No. 5, Bank Holiday ('Appy Amstead) (Ketelbey).
 Regimental Band of H.M. Grenadier Guards, "Radio Quick March."
 Jack Payne and the B.B.C. Dance Orchestra, "Say it with Songs" Selection, Parts 1 and 2 (de Sylva).
 6.28: Tacet.
 6.30: Albert W. Ketelbey's Concert Orchestra, "Jungle Drums Patrol."
 Organ—Emil Velazco, "Estrellita."
 Debroy Somers' Band, "Hungarian Medley," Parts 1 and 2.

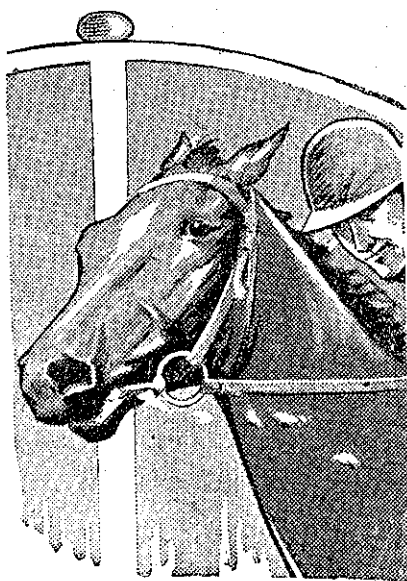
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 AUCKLAND CHRISTCHURCH WELLINGTON

- 6.43: Tacet.
 6.45: Albert W. Ketelbey's Concert Orchestra, "By the Blue Hawaiian Waters," Parts 1 and 2 (Ketelbey).
 Organ—Emil Velazco, "La Golondrina."
 Regimental Band of H.M. Grenadier Guards, "Fighting Strength."
 6.58: Tacet.
 7.0 : News session.
 7.30: Talk—Mr. L. Brice, "Treatment and Care of the Hair."
 8.0 : Chimes. Band programme by the Woolston Band (Conductor, R. J. Estall) and assisted by 3YA artists.
 Overture—Band, "Mephistopheles" (Douglas), "Zampa" Overture.
 8.15: Bass—Mr. Robert W. Rofe, "The Flight of Ages" (Bevan).
 8.19: Broadcasting Trio, "Celebrated Andante and Scherzo-Presto."
 8.32: Soprano—Mrs. Leonard B. Salkeld, (a) "Early in the Morning" (Mont-Phillips), (b) "To a Miniature" (Brahe).
 8.36: Cornet—Bandsman R. Ohlsen, Polka, "Nightingale" (Moss).
 8.42: Paul Godwin's Orchestra, "Through Weber's Enchanted Woods."
 8.50: Selections—Band, "Mozart" (Mozart—arrgd. Rimmer).
 9.0 : Weather forecast and station notices.
 9.2 : Organ—Arnold Grier, "Medley of National Airs."
 9.8 : Bass—Mr. Robert W. Rofe, (a) "A Song of the North Wind" (Head), (b) "All Joy be Thine" (Sanderson).
 9.14: Popular air—Band, "Love's Old Sweet Song" (arrgd. Bingham).
 9.19: Musical comedy chorus, "Miniature Musical Comedy" (Simpson-Holt).
 9.27: Broadcasting Trio, (a) "Romance" (Glinka), (b) "Norwegian Dance, No. 2" (Grieg).
 9.35: Soprano—Mrs. Leonard B. Salkeld, (a) "Sleep and the Roses" (Tate), (b) "I Love a Little Cottage" (O'Hara).
 9.41: Suite de concert—Band, "Demande and Response" (Coleridge-Taylor).
 9.48: Baritone—Allan Prior and Chorus, "Memoirs" (Donnelly-Romberg).
 Duet—Lucyenne Herval and John Coast, "Just We Two."
 9.54: Xylophone solo—Bandsman H. Briggs, "Chu Chin Chow" (Norton).
 March—Band, "The Laurel Wreath" (Rimmer).
 10.3 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—MONDAY, NOVEMBER 17.

- 3.0 : Chimes. Selected gramophone items.
 4.25: Sporting results.
 5.0 : Chimes. Children's hour, conducted by Big Brother Bill.
 6.0 : Dinner music.
 Royal Opera Orchestra, Covent Garden, "Faust" Ballet Music, 1st and 4th Movements (Gounod).
 San Francisco Symphony Orchestra, "Rosamunde Entr'acte."
 6.14: Tacet.
 6.15: National Symphony Orchestra, "Stradella" Overture (Flotow).
 Organ—Reginald Foort, "The Riff Song" (Romberg).
 Philadelphia Symphony Orchestra, "Samson and Delilah" (Bacchanale).
 6.29: Tacet.
 6.30: Royal Opera Orchestra, Covent Garden, "Faust" Ballet Music, 5th and 7th Movements (Gounod).
 Organ—Reginald Foort, "The Desert Song" (Romberg).
 Philadelphia Symphony Orchestra, "Damnation of Faust" (Berlioz).
 6.44: Tacet.
 6.45: National Military Band, "Ballet Egyptien" (Luigini).
 National Symphony Orchestra, "Norma" Overture (Bellini).
 6.57: Tacet.
 7.0 : News session.
 8.0 : Chimes. Overture—Court Symphony Orchestra, "Windmill Man."
 8.9 : Soprano—Miss M. Vickers, (a) "The Sunshine Girl" (Rubens), (b) "Trade Winds" (Keel).
 8.16: Piano—accordeon—Guido Deiro, "Serenade" (Drigo).
 8.19: Recital—Miss Kathleen Quaife, "Playmates" (Reynolds).
 8.23: Bass—Mr. F. C. Cooper, "She Alone Charmeth My Sadness" (Gounod).
 8.27: Instrumental—4YA Trio, "Aida" (Verdi).
 8.34: Contralto—Miss Mary Pratt, "Che Faro" (Gluck).
 8.39: Piano—Mrs. C. Drake, "Andante Capriccioso" (Mendelssohn).
 8.45: Tenor—Mr. Ernest Drake, (a) "Ask if Yon Damask Rose be Sweet" (Handel), (b) "I Attempt from Love's Sickness to Fly" (Purcell).
 8.49: Instrumental—Trio, "Daughter of the Regiment" (Donzetti).
 8.56: Baritone—Mr. G. M. Salmond, "Even Bravest Heart May Swell."
 8.59: Weather report.
 9.1 : Selection—Band of H.M. Coldstream Guards, "La Fille de Madame Angot" (Lecocq).
 9.9 : Soprano—Miss M. Vickers, "Fierce Flames are Soaring" (Verdi).
 9.13: Harpsichord—Wanda Landowska, "Harmonious Blacksmith."
 9.16: Recital—Miss Kathleen Quaife, (a) "Mrs. Pinkerton's Bonnet" (Anon.), (b) "New Year's Eve, 1913" (Bottomley).
 9.22: Bass—Mr. F. C. Cooper, (a) "Within These Sacred Bowers" (from "The Magic Flute") (Mozart), (b) "Amid the Rugged Wild."
 9.29: Instrumental—Trio, "Cavalleria Rusticana" (Mascagni).

- 9.36: Contralto—Miss Mary Pratt, "Softly Awakes My Heart."
 9.41: Cello—Mr. P. J. Palmer, "La Cinquantaine" (Marie).
 9.46: Tenor—Mr. Ernest Drake, (a) "English Rose" (from "Merrie England") (German), (b) "I Heard You Singing" (Coates).
 9.52: Instrumental Trio, "Faust" (arrgd. Klugeschied).
 9.57: Baritone—Mr. G. M. Salmond, (a) "The Yeomen of England."
 10.3: Selection—Band of H.M. Grenadier Guards, "Bells of St. Malo."
 10.6: God save the King.

Tuesday, November 18

1YA, AUCKLAND (900 KILOCYCLES)—TUESDAY, NOVEMBER 18.

- 8.0: Afternoon session—Selected studio items, including literary selection by the Announcer.
 3.15: Talk—Mrs. Les Crane, "Health of Mind and Body in Relation to Diet."
 3.30: Further selected studio items.
 5.0: Children's session, conducted by "Uncle Dave."
 6.0: Dinner music session.
 New Light Symphony Orchestra, "Merry Wives of Windsor" (Nicolai).
 Waltz—Marek Weber's Orchestra, "Moonlight on the Alster" (Fetras).
 6.12: Tacet.
 6.15: New Light Symphony Orchestra, "Hearts and Flowers" (Tobani).
 Waltz—Marek Weber's Orchestra, "Wine, Women and Song" (Weber).
 Wurlitzer organ solo—Reginald Foort, "By the Blue Hawaiian Waters."
 6.26: Tacet.
 6.30: New Light Symphony Orchestra, "The Glow-worm Idyll" (Lincke).
 Victor Salon Orchestra, "Indian Love Call" ("Rose Marie") (Friml).
 "The World is Waiting for the Sunrise" (Lockhart).
 De Groot and His Orchestra, "When Summer is Gone."
 6.43: Tacet.
 6.45: De Groot's Orchestra, "The Merry Widow" (Lehar).
 Wurlitzer organ solos—Reginald Foort, (a) "Leave Me Alone," (b) "Songs My Mother Taught Me" (Dvorak).
 6.57: Tacet.
 7.0: News and market reports.
 7.40: Talk—Mr. Rod. Talbot, "Motoring."
 8.0: Chimes. Relay from the Lewis Eady Hall of concert to be given by the Aeolian Orchestra, under the conductorship of Mr. Gerald Lee.
 The programme will include the following numbers:—
 March—Orchestra, "Children of the Regiment" (Fucik).
 Overture—Orchestra, "Three Days" (Lotter).
 Song—Molly Atkinson, "A Mood" (Travers).
 Piccolo and orchestra, solo—Mr. G. Carder, "The Comet" (Brewer).
 Old English air—Orchestra, "Drink to Me Only" (arrgd. Quilter).
 String piece—Orchestra, "Moment Musicale" (Schubert).
 Selection—Orchestra, "Carmen" (Bizet).
 March—Orchestra, "The Hussars are Coming" (Ellenberg).
 Glockenspiel and orchestra, solo—Mr. W. Debenham, "The Butterfly."
 Vocal duet—Molly Atkinson and Karl Atkinson, "The Golden Song."
 Idyll—Orchestra, "Blumengefuster" (Von Blon).
 Song—Molly Atkinson, "A Night Idyll" (Loughborough).
 Grand march—Orchestra, "Cleopatra" (Mancinelli).
 God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—TUESDAY, NOVEMBER 18.

- 8.0: Chimes. Selected studio items.
 3.30 and 4.30: Sporting results to hand.
 5.0: Children's session conducted by Big Brother Jack.
 6.0: Dinner session:
 Brunswick Concert Orchestra, "Dance of the Hours" (Ponchielli).
 Orchestral—A. and P. Gipsies, "Herbertiana" (Stone).
 Violin—Fredric Fradkin, "Le Cygne" (Saint-Saens).
 Brunswick Concert Orchestra, "Badinage" (Herbert).
 Orchestral—A. and P. Gipsies, "The Far-Away Bells" (Furber-Gordon).
 6.14: Tacet.
 6.15: Brunswick Concert Orchestra, "Wine, Women, and Song" (Strauss).
 Anglo-Persians Orchestra, "Cossack Love Song" (Katzman).
 Violin—Fredric Fradkin, "Nola" (Arndt).
 Ray Miller and His Orchestra, "Iowa Corn Song" (Lockard).
 6.28: Tacet.
 6.30: Orchestral—A. and P. Gipsies, (a) "White Acacia," (b) "Petite Causerie" (Stone).
 Brunswick Concert Orchestra, "Thousand and One Nights" (Strauss).
 Orchestral—A. and P. Gipsies, "Simple Confession" (Thome).
 Ray Miller and His Orchestra, "Go, You North-Western" (Van Etten).
 6.43: Tacet.
 6.45: Brunswick Concert Orchestra, "La Danseuse" (Von Blon); Hungarian Lustspiel" (Keler).
 Violin—Fredric Fradkin, "A Kiss in the Dark" (De Sylva).
 Orchestral—Anglo-Persians, "Ragamuffin" (Greer).
 6.58: Tacet.
 7.0: News session, market reports and sports results.
 7.40: Lecturette—Representative of the Agricultural Department, "For the Man on the Land."
 8.0: Chimes. Overture—Salon Orchestra (Conductor, Mr. M. T. Dixon), "A Night in Venice" (Strauss, arr. Wiegund).
 8.9: Baritone—Mr. S. Evelyn Rodger, "Song of the Waggoner."

- 8.13: Mandola—Mr. Lad Haywood, (a) "Serenade" (Schubert), (b) "When You Come to the End of the Day" (Kahn).
 8.19: Entertainers—Will Bishop and Elsie Croft will entertain with original numbers.
 8.29: Selections—Salon Orchestra, (a) "Legende" (Friml), (b) "Pizzicato Bluette" (Friml).
 8.37: Yodelling with banjo—Mr. Andrew Bolton, "My Pretty Lena."
 8.41: Popular song—Mrs. R. A. Sloan, "Let Me Have My Dreams" (Akst).
 8.45: Selection—Salon Orchestra, request item.
 8.53: Baritone—Mr. S. Evelyn Rodger, (a) "Under the Rose" (Hawley), (b) "Moonlight" (Quilter).
 8.58: Weather report and station notices.
 9.0: Mandolin—Mr. Lad Haywood, (a) "When I'm Looking at You" (from "The Rogue Song"—Stothart), (b) "The Whole Darned Things for You" (Ahlert).
 9.6: Entertainers—Will Bishop and Elsie Croft will entertain with original numbers.
 9.16: Selection—Salon Orchestra, "An Evening in Toledo" (Schmelting).
 9.22: Yodelling with banjo—Mr. Andrew Bolton, "Dreaming of You."
 9.26: Popular song—Mrs. R. A. Sloan, "I Get the Blues When it Rains."
 9.30: Selection—Salon Orchestra, "Poem" (Fibichl).
 9.34: Dance programme.
 Foxtrots—Paul Tremaine and His Orchestra, "Hand Me Down My Walkin' Cane" (arr. Tremaine).
 Paul Whiteman and His Orchestra, "Happy Feet."
 Ray Starita and His Ambassadors Band, "Spread a Little Moment" (Newman, Grey, and Ellis).
 Paul Whiteman and His Orchestra, "A Bench in the Park."
 9.42: Waltzes—Russian Novelty Orchestra, "Greetings of Spring."
 Novelty Dance Orchestra, "Sobbing Waltz."
 9.48: Vocal—James Melton, "Neapolitan Nights."
 9.51: Foxtrots—Ben Selvin and His Orchestra, "The Woman in the Shoe."
 Paul Whiteman and His Orchestra, "Should I?" (Brown).
 The Rhythmic Troubadours, "On Her Doorstep Last Night."
 10.0: Waltzes—Paul Whiteman and His Orchestra, "A Bundle of Old Love Letters" (Brown).
 Moana Orchestra, "Imi Au Ia Oe" (King).
 Foxtrots—The Rhythmic Troubadours, "Fairly on the Clock" (Myers).
 Ben Selvin and His Orchestra, "Only Love is Real."
 10.12: Vocal—Ernest Hastings, "Perverved Placards" (Bateman-Hastings).
 10.15: Foxtrots—Paul Specht and His Orchestra, "The Harbour of My Heart."
 Gil Dech and His Syncopators, "Let's Be Common."
 Paul Specht and His Orchestra, "Keepin' Myself for You."
 Ray Starita and His Ambassadors Band, "Spread a Little Happiness" (Grey, Newman, and Ellis).
 10.27: Waltzes—Russian Novelty Orchestra, "The Love of a Gipsy."
 Novelty Dance Orchestra, "First Love Waltz."
 10.33: Foxtrots—Ben Selvin and His Orchestra, "Song of the Islands" (King).
 Moana Orchestra, "For You a Lei" (Noble, Hyatt).
 Gil Dech and His Syncopators, "Nobody's Using It Now."
 10.42: Vocal—James Melton, "Dear Little Mother of Mine" (Jayne, Sterling).
 10.45: Foxtrots—Guy Lombardo and His Royal Canadians, "With You."
 Will Osborne and His Orchestra, "I Knew We Two Were One" (Denniker and Osborne).
 Guy Lombardo and His Royal Canadians, "There's Danger in Your Eyes, Cherie" (Richman, Meskill, Wendling).
 Waltzes—Moana Orchestra, "My Hawaiian Souvenir" (King).
 Vic Meyer and His Band, "If I'm Dreaming" (Burke).
 11.0: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—TUESDAY, NOVEMBER 18.

SILENT DAY.

4YA, DUNEDIN (650 KILOCYCLES)—TUESDAY, NOVEMBER 18.

- 3.0: Chimes. Selected gramophone items.
 4.25: Sporting results.
 5.0: Chimes. Children's hour, conducted by Big Brother Bill.
 6.0: Dinner music:
 Marek Weber and Orchestra, "Lehariana" (Geiger).
 Cello—Cedric Sharpe, "Air" (Pergolesi).
 Band of H.M. Coldstream Guards, "Wedding of the Rose" (Jessel).
 6.14: Tacet.
 6.15: Vienna Philharmonic Orchestra, "Morning, Noon, and Night in Vienna."
 New Mayfair Orchestra, "Five O'Clock Girl" (Ruby).
 6.27: Tacet.
 6.30: New Mayfair Orchestra, "Love Lies" (De Sylva).
 Cello—Cedric Sharpe, "Twilight" (Friml).
 Organ—Herbert Dawson, "Evensong" (Basthope Martin).
 Band of H.M. Coldstream Guards, "Hobomoko Intermezzo" (Reeves).
 6.44: Tacet.
 6.45: Trio—De Groot (violin), A. Gibilaro (piano), J. Pacey (cello), "O Sole Mio" (Di Capua).
 Organ—Herbert Dawson, "Idylle" (Edward Elgar).
 Berlin State Opera Orchestra, "German Dances" (Mozart).
 6.57: Tacet.
 7.0: News session.
 8.0: Studio programme of music to be rendered by Dunedin Tramways Band under direction of Mr. Charles T. Morgan.
 March—Band, "Friendship" (Fraser); Intermezzo, "Sizilletta."

- 8.10: Soprano—Miss Margaret W. Felchley, (a) "Wanderer's Night Song" (Martin), (b) "As You Pass By" (Russell).
 8.16: Novelty—Stuart Robertson, (a) "Villikins and His Dinah," (b) "Some Folks Like to Sigh."
 8.19: Recital—Miss Elsie McPeak, "Peter" (Scott-Gatty).
 8.23: Selection—Band, "A Garland of Classics" (Rimmer).
 8.33: Scotch humour—Mr. James A. Paterson, "O'er the Hills to Ardintenny."
 8.37: Saxophone—Mr. J. McCaw, "Cheerful Rag" (Allan).
 8.41: Contralto—Miss M. Stokes, (a) "Faithful Johnnie" (Beethoven), (b) "The Tree in the Wood" (Somervell).
 8.47: Foxtrot—Band, "Sweeping the Clouds Away" (Coslow).
 8.51: Tenor—Mr. J. Swan, "Off in the Silly Night" (Moore).
 8.54: Novelty Orchestra, (a) "Dance Bagatelle," (b) "Ginger Snaps."
 9.0 : Weather report and station announcements.
 9.2 : Suite—Band, "The Bells" (Rimmer).
 9.13: Soprano—Miss Margaret W. Felchley, "Prelude" (Ronald).
 9.16: Novelty—Stuart Robertson, (a) "My Bonnie," (b) "Down in Demerara"
 9.19: Recitals—Miss Elsie McPeak, (a) "In Service" (Letts), (b) "The Bold, Unbiddable Child" (Letts).
 9.25: Waltz—Band, "Luna" (Linck).
 9.30: Scotch humour—Mr. Jas. A. Paterson, (a) "Wedding of Jock McKay" (Downes), (b) "Scotland's Whisky" (Merson).
 9.36: Clarinet and saxophone novelty—Mr. J. McCaw, (a) "Polly" (Urbanck), (b) "Alpine Echoes" (Comey).
 9.43: Contralto—Miss M. Stokes, "The Waggle Taggle Gipsies O" (Sharp).
 9.46: Fantasia—Band, "A Summer Day" (Greenwood).
 9.52: Tenor—Mr. J. Swan, (a) "Follow the Golden Star" (Lathom), (b) "A Farewell" (Liddle).
 9.58: March—Band, "Badge of Honour" (Harris).
 10.1 : God save the King.

Wednesday, November 19

1YA, AUCKLAND (900 KILOCYCLES)—WEDNESDAY, NOVEMBER 19.

- 11.45: Results of Otahuhu Trotting Club's meeting at Alexandra Park.
 3.0 : Afternoon session—Selected studio items.
 5.0 : Children's session, conducted by "Uncle Tom."
 6.0 : Dinner session.
 Albert Sandler and His Orchestra, "Someday, Somewhere."
 B.B.C. Wireless Military Band, "Stratspeys and Reels," Part 1 (arrgd. B. Walton O'Donnell), Part 2 (arrgd. G. Williams).
 Saxophone—Rudy Wiedoeft, "Sax-o-phun" (Wiedoeft).
 Len Fillis Novelty Trio, "The Heart of the Sunset" (Nicholls).
 6.13: Tacet.
 6.15: Percy Pitt and Augmented Symphony Orchestra, "Poet and Peasant" Overture, Parts 1 and 2 (Suppe).
 Harp—Sidonie Gossens, "Song of the Volga Boatmen."
 H. G. Amers and the Eastbourne Municipal Band, "The B'hoys of Tipperary" (Amers).
 6.28: Tacet.
 6.30: Albert Sandler and His Orchestra, "Sonny Boy."
 H. G. Amers and the Eastbourne Municipal Orchestra, "Second Serenata" (Toselli—arrgd. Geehl).
 Saxophone—Rudy Wiedoeft, "La Cinquantine" (Marie—arr. Wiedoeft).
 Debroy Somers' Band, "Russian Fantasy" (arrgd. Lange and Somers).
 6.48: Tacet.
 6.45: H. G. Amers and the Eastbourne Municipal Band, "All on a Christmas Morning—Idyll" (Amers).
 B.B.C. Wireless Symphony Orchestra, "H.M.S. Pinafore" Selection, Parts 1 and 2 (Sullivan).
 H. G. Amers and the Eastbourne Municipal Orchestra, "Tarantelle for Flute and Clarinet" (Saint Saens).
 6.53: Tacet.
 7.0 : News and market reports.
 7.40: Talk—Mr. Norman Kerr, "Physical Culture."
 8.0 : Chimes. Presentation of programme by the Auckland Piano Students' Association.
 Overture—Halle Orchestra, "Alphonso and Estrella" (Schubert).
 8.9 : Piano quartet—Miss Grace Piggot, Marie Jagusch, Joyce Parker and Marjorie Slade, "First Movement—Fifth Symphony" (Beethoven).
 8.17: Baritone—Mr. W. E. McMichael, (a) "Red Devon by the Sea" (Clarke). (b) "Friend o' Mine" (Sanderson).
 Vocal duet—Miss Winifred Hill and Mr. W. E. McMichael, "Venetian Song" (Tosti).
 Soprano—Miss Winifred Till, (a) "The Wooing of the Rose" (Franck), (b) "Little Chinese Mandarin" (Montague-Phillips).
 8.24: Piano duo—Misses Myrtle Hawthorn and Alma Petricevich, "Ruy Blas." Violin—Mr. J. L. Chapman, "Ave Maria" (Schubert).
 Piano duo—Misses Clare and Blackburn, "Spinning Song" (Wagner).
 8.48: Dialogue—Messrs. Karl Atkinson and W. E. McMichael, "Beethoven and Chopin."
 8.58: Evening weather forecast and announcements.
 9.0 : Piano quartet—Misses Elva Carr, Jean Sinclair, Reita Kennedy and Kathleen Wright, "Peer Gynt Suite" (Nos. 1, 3 and 4) (Greig).
 9.10: Mezzo-contralto—Miss Patti Schnackenberg, (a) "Spreading the News" (Oliver), (b) "Slave Song" (Del Riego), (c) "Cloud Shadows" (Rogers), (d) "Tip Toe" (Carew).
 9.22: Piano duo—Misses Joyce Parker and Reita Kennedy, "Valse."

- 'Cello—Miss Jean Brown, (a) "Scherzo" (Van Goens), (b) "Arlequin."
 Piano duo—Misses Elfreda Hall and Connie Martin, (a) "Bees' Wedding" (Mendelssohn), (b) "Butterflies" (Grieg).
 9.40: Tenor—Mr. Tom Gopsey, (a) "I Heard You Singing" (Coates), (b) "Eleanore" (Coleridge-Taylor).
 9.46: Piano duo—Misses Ailsa Walker and Una Cleave, "Valse des Fleurs."
 Piano quartet—Misses Clarge, Judge, Blackburn and J. Parker, "Magic Flute" Overture (Mozart).
 9.56: Bournemouth Municipal Orchestra, "Idylle Bretonne" (Gennin).
 10.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—WEDNESDAY, NOVEMBER 19.

SILENT DAY.

3YA, CHRISTCHURCH (980 KILOCYCLES)—WEDNESDAY, NOV. 19.

- 3.0 : Afternoon session—Gramophone recital.
 4.25: Sports results.
 5.0 : Children's hour, conducted by Uncle John.
 Dinner session.
 New Mayfair Orchestra, "Lilac Time" (Schubert-Clutsum).
 Royal Opera Orchestra, "Carmen Ballet No. 1" (Bizet).
 6.12: Tacet.
 6.15: National Symphony Orchestra, "William Tell" Overture (Rossini).
 6.27: Tacet.
 6.30: Royal Opera Orchestra, "Sylvia Ballet—Pizzicato and Procession of Bacchus" (Delibes); "Carmen Ballet No. 2" (Bizet).
 6.42: Tacet.
 6.45: London Symphony Orchestra, "Chanson de Matin" (Elgar).
 Trio—Fritz and Hugo Kreisler and Michael Raucheisen, "Arlesienne Intermezzo" (Bizet—arrgd. Kreisler).
 Philadelphia Symphony Orchestra, "Nocturne No. 2 Fetes" (Debussy).
 6.57: Tacet.
 7.0 : News session.
 7.30: Addington stock market reports.
 8.0 : Chimes. Relay of special presentation by the Royal Christchurch Musical Society, Inc., from The Civic Theatre of "The Cantata Life." The words from Wordsworth's poem. Vocal and orchestral music composed by Mr. Arthur Lily, A.R.C.O. Baritone soloist, Mr. R. J. Laurensen (Ashburton). Supported by chorus of 200 and full orchestra, under the conductorship of Mr. W. H. Dixon, L.R.A.M., A.R.C.M.
 8.40: Studio Octet, Overture, (a) "Pique Dame" (Suppe), (b) "Spanish Serenade" (Friml).
 8.54: Chorus—Light Opera Company, Gems from (a) "Countess Maritza" (Smith-Kalman), (b) "The Blue Mazurka" (Lehar).
 9.0 : Weather forecast and station notices.
 9.2 : Studio Octet, (a) "Melodie" (Friml), (b) "Anitra's Dance" (Grieg).
 9.10: Soprano—Miss Cicely Audibert, "Waltz Song" (Gounod).
 9.14: Organ—Emil Velazco, "Estrellita."
 Chorus—The Revellers, Gems from "Tip Toes" (Gershwin).
 9.22: 3YA Instrumental Quintet, "Extase" (Garne).
 9.26: Bass—Peter Dawson, "Song of the Flea" (Moussorgsky).
 Band—Australian Commonwealth Band, "The Switchback" (Sutton).
 9.33: Soprano—Miss Cicely Audibert, (a) "True Love" (Brahms), (b) "Gems" (Chanimade), (c) "Oh, Thou Waiting Field of Golden Grain" (Rachmaninoff).
 9.41: Chorus—Light Opera Company, Vocal Gems from "Lilac Time."
 9.49: Studio Octet, Musical comedy Selection, "Maid of the East" (Neale).
 10.2 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—WEDNESDAY, NOVEMBER 19.

- 3.0 : Chimes. Selected gramophone items.
 3.15: Talk—"Meals that Keep the Family Fit—Breakfast and Lunch."
 Talk prepared by the Home Science Extension Department, under auspices of 4YA Primary Productions Committee.
 4.25: Sporting results.
 5.0 : Chimes. Children's hour, conducted by Big Brother Bill.
 6.0 : Dinner music.
 Paul Godwin's Orchestra, "Through Weber's Enchanted Woods" (Ernst Urbach), "Mignon—Entr'acte Gavotte" (Thomas), "Firefly's Idyl."
 6.14: Tacet.
 6.15: Paul Godwin and His Orchestra, "Third Waltz Medley" (Robrecht).
 Members of the State Opera Orchestra, Berlin, "Don Pasquale."
 6.29: Tacet.
 6.30: Paul Godwin's Orchestra, "Suite Algerienne" (Saint Saens).
 Symphony Orchestra, "Homage March" (Grieg).
 Vienna Schrammel Quartet, "Firefly's Appointment" (Ludwig Siede).
 6.44: Tacet.
 6.45: Polydor Brass Band Orchestra, "Il Trovatore" (Verdi).
 Great Symphony Orchestra, "Paying a Visit to Millocker" (Morena).
 6.58: Tacet.
 7.0 : News session.
 7.15: Talk—Mr. J. Beatson, "Quality of Milk and Cream," under auspices of 4YA Primary Productions Committee.
 8.0 : Relay of concert by Dunedin Returned Soldiers' Choir from Concert Chamber of the Dunedin Town Hall, assisted by the following artists: Miss Meda Paine (soprano), Mr. J. Adair (tenor), Mr. J. Keenan (baritone), and Mr. J. Stewart (flautist). Conductor, Mr. J. Leech. Pianist, Mr. Chas. Martin, L.A.B.

PROGRAMME.

- Choral works will include:
 "Wanderer's Night Song" (Kahlan).
 "Night."
 "A Stream of Silver Moonshine" (Gerven).
 "Zut, Zut, Zut" (Elgar).
 "Mistake" (Hunt).
 "Bacchanale" and Chorus (Elliot).
 "Home, Sweet Home" (arrgd. Lewing).
 "Sword of Ferrara" (Bullard).
 "Victory" (Jenkins).
 "Nazareth" (Gounod).
 "Hail to the Chief" (Bishop).
 Quartet, "Swing Low, Sweet Chariot" (Traditional).
 Piano soloist, Mr. Chas. Martin, L.A.B.
 Soloist, Miss Margaret Howden, contralto.
- 10.20: Dance session.
 Foxtrots—Jack Hylton's Orchestra, "Ever so Goosey" (Butler).
 Ted Weem's Orchestra, "Am I a Passing Fancy?" (Silver).
 Walzes—Connecticut Yankees, "Underneath the Russian Moon."
 Hilo Hawaiian Orchestra, "Sparkling Waters of Waikiki."
- 10.30: Tenor—Morton Downey, "The World is Yours and Mine" (Green).
 Foxtrots—Ted Weems' Orchestra, "What a Day!" (Woods).
 Connecticut Yankees, "The One That I Love Loves Me."
 Jack Hylton's Orchestra, "The Toymaker's Dream."
- 10.43: Vocal duet—Billy Murray and Walter Scanlon, "Oh, Baby, What a Night" (Brown).
 Foxtrots—Rudy Vallee and Connecticut Yankees, "I'll be Reminded of You" (Heyman-Smith).
 Gus Arnheim's Orchestra, "This is Heaven" (Yellen).
 All-Star Orchestra, "Waiting at the End of the Road."
 Gus Arnheim's Orchestra, "One Sweet Kiss" (Jolson).
 Waltz—Gus Arnheim's Orchestra, "Sleepy Valley" (Sterling).
- 11.0: God save the King.
- 9.33: Programme of dance music:
 Foxtrot with vocal trio—Alfredo and His Band, "Sweetheart of All My Dreams" (Fitch).
 Foxtrot with vocal chorus—The Blue Jays, "Dance of the Paper Dolls."
 Foxtrots—Alfredo and His Band, "Deep Night" (Henderson).
 The Blue Jays, "The Toymaker's Dream" (Golden).
- 9.42: Waltzes with vocal choruses—Alfred and His Band, "My Song of the Nile" (De Sylva); "I'll Always be in Love With You" (Ruby).
 Foxtrots with vocal choruses—Alfredo and His Band, "Turn on the Heat" (De Sylva); "This is Heaven" (Yellen); "If I had a Talking Picture of You" (De Sylva).
 Vocal—G. H. Elliott, "Muddlin' Thro'" (Howard Flynn).
- 10.0: Foxtrot with vocal duet—Alfredo and His Band, "Little Pal" (De Sylva).
 Foxtrot—Alfredo and His Band, "Laughing Marionette" (Collins).
 Foxtrot with vocal chorus—Alfredo and His Band, "Why Can't You?"
 Waltz with vocal chorus—Alfredo and His Band, "Sometimes."
 Waltz with vocal trio—Alfredo and His Band, "Let Me Dream in Your Arms Again" (Nicholls).
- 10.15: Vocal—Stanley Kirkby, "My Mother's Eyes" (Baer).
 Foxtrot with vocal chorus—Radio Rhythm Boys, "Painting the Clouds with Sunshine" (Burke).
 Foxtrots—Alfredo and His Band, "Mean to Me" (Turk).
 Radio Rhythm Boys, "Tiptoe Thro' the Tulips with Me".
 The Plaza Band, "A Precious Little Thing Called Love."
- 10.30: Waltz with vocal chorus—Harry Hudson's Melody Men, "Why Do I Love You?" (Kern).
 Two-step—Bal Musette Orchestra, "Mayorqua" (Brunel).
 Vocal—G. H. Elliott, "Yodelling Coon" (Howard Flynn).
- 10.42: Foxtrots with vocal choruses—Alfredo and His Band, "I've Never Seen a Smile Like Yours" (Johnson); "I Think of What You Used to Think of Me" (Turk).
 Foxtrots—Harry Hudson's Melody Men, "Ol' Man River" (Kern).
 Alfredo and His Band, "I Don't Know Why I Do It, But I Do"; "Do Something" (Green, Stept).
 Dutch dance—Bal Musette Orchestra, "Raffle" (Berniaux).
- 11.0: God save the King.

Thursday, November 20

1YA, AUCKLAND (900 KILOCYCLES)—THURSDAY, NOVEMBER 20.

- 3.0: Afternoon session—Selected studio items, including literary selection by the Announcer.
- 3.15: Lecturette—"Budgeting, or Managing the Family Income," talk arranged by Home Science Extension Department, Otago University.
- 3.30: Further selected studio items.
- 5.0: Children's session, conducted by "Peter Pan."
- 6.0: Dinner session:
 Selection—Kauffman's Orchestra, "The Gipsy Baron" (Strauss).
 Waltz—La Vittoria Orchestra, "Wedding of the Winds" (Hall).
- 6.12: Tacet.
- 6.15: Piccadilly Orchestra, "If Only I Had You" (Davies); "Lolita" (Ferrete).
 Hawaiian—Kolomoku's Honoluluans, "Aloha Oe" (Liliuokalani).
 Piccadilly Orchestra, "Charmaine" (Rapee).
- 6.27: Tacet.
- 6.30: Selection—New Mayfair Orchestra, "This Year of Grace" (Coward).
 Waring's Orchestra, "Ah! Sweet Mystery of Life" (Herbert).
 Hawaiian—Kolomoku's Honoluluans, "Three O'Clock in the Morning."
- 6.42: Tacet.
- 6.45: Victor Concert Orchestra, "Minuet in G" (Paderewski); "Amaryllis."
 Piccadilly Orchestra, "Bird Songs at Eventide" (Coates).
 Waltz—International Concert Orchestra, "Blue Danube" (Strauss).
- 6.57: Tacet.
- 7.0: News and market reports.
- 7.40: Talk—Dr. E. B. Gunson, "Pure Foods."
- 8.0: Chimes. String Octet, under direction of Mr. J. Whitford Waugh, (a) "March Militaire" (Schubert), (b) "Minuet from G Minor Symphony" (Mozart).
- 8.9: Vocal quartet—New Clarion Quartet, "In the Woods" (Mendelssohn).
 Bass—Mr. Duncan Black, "The King's Own" (Benheur).
 Vocal duet—Miss Beryl Smith and Mr. Lambert Harvey, "Home to Our Mountains" (Verdi).
- 8.19: String Octet, (a) "Chant Sans Paroles" (Tschaiakowsky), (b) "Minuet Oxford Symphony" (Haydn).
- 8.27: Soprano—Miss Lillian Woods, "Damon" (Strange).
 The New Clarion Quartet, "Ukulele Baby" (Sherman Bloom).
 Tenor—Mr. Lambert Harvey, "Angels Guard Thee" (Godard).
- 8.37: String Octet, "Tarantella" (Raff).
 String Quartet—Messrs. J. Whitford Waugh, Haydn Murray, Colin Munro, and Miss Lalla Hemus, "The Mill" (Raff-Pochon).
- 8.45: Talk—Mr. A. B. Chappell, M.A., "Topical Talk."
- 9.0: Evening weather forecast and announcements.
- 9.2: String Octet, Musical Pictures: (a) "At the Theatre," (b) "Evening in the Forest," (c) "Fiddler's Fancy" (Foulds).
- 9.14: Vocal duet—Miss Lillian Woods and Mr. Duncan Black, "May Day Morn" (Slater).
 Contralto—Miss Beryl Smith, "Still as the Night" (Bohm).
 The New Clarion Quartet, "Sleepy Hollow Tune" (Kountz).
- 9.24: String Octet, (a) "When Other Lips" (Balfe), (b) "Folk Tune and Fiddle Dance" (Fletcher).

2YA, WELLINGTON (720 KILOCYCLES)—THURSDAY, NOVEMBER 20.

- 3.0: Chimes. Selected studio items.
- 3.15: Lecturette—Miss I. F. Meadows, "Budgeting or Managing the Family Income." Talk arranged by the Home Science Extension Department of Otago University.
- 3.30 and 4.30: Sporting results to hand.
- 5.0: Children's session, conducted by Uncle George and Big Brother Jack.
- 6.0: Dinner Music session.
 March—American Legion Band, "The Conqueror" (Teike).
 Selection—Savoy Orpheans, "Lido Lady" (Rodgers).
- 6.12: Tacet.
- 6.15: New Light Symphony Orchestra, "Rustic Wedding Symphony."
 Victor Olof Sextet, "To a Water Lily" (Macdowell).
 New Light Symphony Orchestra, "Spanish Dance" (Moszkowski).
 Wurlitzer organ—Reginald Foort, "Just Like a Darby and Joan."
- 6.28: Tacet.
- 6.30: Jack Hylton's Orchestra, "The Selfish Giant" (Coates).
 Victor Olof Sextet, (a) "To a Wild Rose," (b) "In Autumn."
 Violin and Wurlitzer organ—de Groot and Terence Casey, "Parted."
- 6.44: Tacet.
- 6.45: Victor Symphony Orchestra, "Dance of the Hours" (Ponchielli).
 Wurlitzer organ—Reginald Foort, "Love Lies" (Kellard).
 March—American Legion Band, "Iowa Corn Song" (arrgd. Beeston).
- 6.58: Tacet.
- 7.0: News session, market reports and sports results.
- 7.40: Lecturette—Mr. W. M. Jackson, "Gardening Hints—Evolution of the Gladioli."
- 8.0: Chimes. Studio concert by the Miramar Silver Band (Conductor, Mr. R. A. Sutherland) and 2YA artists.
 March—Band, "Howitzer" (White).
 Selection—Band, "Elixir of Love" (Donizetti).
- 8.13: Soprano—Miss Flora Mackenzie, (a) "The Keel Row" (Traditional), (b) "Comin' Thro' the Rye" (Burns).
- 8.18: Piano solos—Mr. Norman Izett (a) "The Carillon" (O'Neill), (b) "Scotch Dance" (Busoni).
- 8.25: Bass—Mr. J. H. Lee, (a) "A Jug of Punch" (Wood), (b) "Come, Let's Be Merry" (Lane-Wilson).
- 8.31: Cornet with band accompaniment—Bandsman Newton, "Australis."
 Humoresque—Band, "Buy a Broom" (Trenchard).
- 8.40: Contralto—Miss Agnes McDavitt, "Down Here the Lilacs Fade."
- 8.48: Selection—London Theatre Orchestra, "Lilac Time."
- 8.51: Tenor—Mr. Harry Phipps, (a) "The Sailor's Grave" (Sullivan), (b) "For You Alone" (Geehl).
- 8.57: March—Band, "The Red Star" (Lewis).
- 9.0: Weather report and station notices.
- 9.1: Humorous anecdotes—Mr. C. P. McKenzie, "Extracts from A. A. Thomson" (Thomson).
- 9.13: Waltz—Band, "Queen of Emeralds" (Greenwood).
- 9.18: Soprano—Miss Flora Mackenzie, (a) "It Goes Like This" (Friend), (b) "Let Me Have My Dreams" (Akst).
- 9.23: Orchestral—Debroy Somers' Band, "The Singing Fool" (arr. Connelly).
- 9.31: Bass—Mr. J. H. Lee, (a) "Trade Winds" (Keel), (b) "Loveliest of

Trees, The Cherry Now" (Somerville) (from the song cycle, "A Shropshire Lad").

9.36: Sacred selection—Band, "Bow Down" (arrgd. Rimmer).

9.43: Contralto—Miss Agnes McDavitt, (a) "Meadow Sweet" (Brahe), (b) "The Kerry Dance" (Molloy).

9.50: Organ—Quentin Maclean, "Little Dolly Daydream" (Stuart).

9.54: Tenor—Mr. Harry Phipps, (a) "I Seek for Thee" (Ganz), (b) "Bells of Youth" (Fletcher).

9.59: March—Band, "The Hustler" (Williams).

10.2: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—THURSDAY, NOV. 20

3.0: Afternoon session—Gramophone recital.

3.15: Lecturette—"Budgeting, or Managing the Family Income," talk arranged by the Home Science Extension Service, Otago University.

4.25: Sports results.

5.0: Children's hour, conducted by "Ladybird" and "Uncle Frank."

6.0: Dinner session:

Berlin State Opera Orchestra, "Polonaise" (Liszt).

Violin—Isolde Menges, "Nocturne in E Flat, Op. 9, No. 2" (Chopin).

6.13: Tacet.

6.15: Band—H.M. Coldstream Guards, "La Fille de Madame Angot" (Lecocq).

Piano—Mark Hambourg, "Rakoczy March" (Liszt).

John Barbirolli's Chamber Orchestra, "A Little Night Music: First Movement" (Mozart).

6.29: Tacet.

6.30: John Barbirolli's Chamber Orchestra, "A Little Night Music: Second, Third, and Fourth Movements."

Piano—Mark Hambourg, "On Wings of Song" (Mendelssohn).

6.44: Tacet.

6.45: Virtuoso String Quartet, "Londonderry Air" (arr. Bridge).

Violin—Isolde Menges, "Air on G String" (Bach).

Virtuoso String Quartet, "The Emperor," Op. 76, No. 3 (Haydn).

6.58: Tacet.

7.0: News session.

8.0: Chimes. Relay of third concert of the season of the Christchurch Male Voice Choir (assisted by the Boy Choristers of Christchurch Anglican Cathedral) from the Civic Theatre (Conductor, Dr. J. C. Bradshaw). Soloists: Madame Winnie Fraser (soprano), Mr. H. Blakeley (Choir member) (tenor), Mr. R. Lake (Choir member) (baritone). The following items will be included on the programme: Glees—"Strike the Lyre" (Cooke); "When Allen-a-Dale Went a-Hunting" (Le de Pearsall).

Part-songs—"As Torrents in Summer" (Elgar); "Cradle Song," "Hymn of the Pilgrims" (Macdowell); "All Thro' the Night"; "Hail, Smiling Morn" (Spofforth); "Lovely Night" (Chwatal).

Humorous part-song—"Laughing" (Abt).

Part-songs—"The Cruisken Lawn" (Sir R. P. Stewart); "Deep Embushed" (Schubert); "The Viking's Song" (Coleridge-Taylor).

Sea shantey—"Bound for the Rio Grand" (Jacobson).

God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—THURSDAY, NOVEMBER 20.

SILENT DAY.

Friday, November 21

1YA, AUCKLAND (900 KILOCYCLES)—FRIDAY, NOVEMBER 21.

3.0: Afternoon session—Selected studio items.

5.0: Children's session, conducted by "Nod" and "Aunt Jean."

6.0: Dinner session.

New Light Symphony Orchestra, "Scene de Ballet—Marionettes."

Berlin State Opera Orchestra, "Polonaise No. 2" (Liszt).

Violin—Mischa Elman, "Vocalise" (Rachmaninoff—arrgd. Press).

6.14: Tacet.

6.15: National Symphony Orchestra, "Fra Diavolo" Overture, Parts 1 and 2.

Piano—Vladimir de Pachmann, (a) "Mazurka in C Sharp Minor, Op. 63, No. 3"; (b) "Mazurka in A Minor, Op. 67, No. 4" (Chopin).

Trio—De Groot (violin), David Bor (piano), H. M. Calve ('cello), "El Religario" (Padilla).

6.28: Tacet.

6.30: Band of H.M. Coldstream Guards, "Martha" Selection (Flotow).

Violin—Mischa Elman, "Caprice in E Flat Major" (Wieniawski, arr. Kreisler).

New Symphony Orchestra, "Air on G String" (Bach).

6.43: Tacet.

6.45: New Light Symphony Orchestra, "Persiflage" (Francis); "Londonderry Air" (arr. Grainger).

Trio—De Groot (violin), David Bor (piano), H. M. Calve ('cello), "Selection in Hebrew Melodies" (arr. Saunders).

Piano—Vladimir de Pachmann, "Nocturne in E Minor, Op. 72."

6.58: Tacet.

7.0: News and market reports.

7.40: Talk—Dr. Hardie Neil, "Cancer."

8.0: Chimes.

Studio Trio, "Finale Trio in E Flat" (Brahms).

8.8: Soprano—Mrs. Laetitia Parry, (a) "Nay Tho' My Heart Should Break" (Tschalkowsky); (b) "Pleading" (Elgar).

8.15: One act play—Mr. and Mrs. J. W. Bailey, "A Strange Proposal."

8.27: Piano and violin—Mr. Cyril Towsey and Mr. J. Whitford Waugh, "Sonata in F" (Greig).

8.39: Male alto—Mr. Bert Skeels, (a) "Absent" (Metcalf); (b) "A Song of Hope" (Wood).

8.46: Flute—Mr. Edward V. Johnson, "Witches' Dance" (Paganini).

8.53: 'Cello—Miss Lalla Hemus, (a) "Le Cygne" (Saint-Saens); (b) "Andantino" (Martini-Kreisler).

9.0: Evening weather forecast and announcements.

9.2: Soprano—Mrs. Laetitia Parry, "The Willow Song" (Coleridge-Taylor).

9.6: One act play—Mr. and Mrs. J. W. Bailey, "A Fair Pretender."

9.17: Studio Trio, "Autumn and Winter" (Glazounov).

9.21: Male alto—Mr. Bert Skeels, "A Farewell" (Liddle).

9.25: Flute—Mr. Edward V. Johnson, "The Brook in the Wood" (Wetzger).

9.30: Lecture-recital—Mr. Karl Atkinson, "Voices of the Orchestra, Part 2." (Wind instruments).

10.0: God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—FRIDAY, NOVEMBER 21.

3.0: Chimes. Selected studio items.

3.30 and 4.30: Sporting results to hand.

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

6.0: Dinner music session.

Dajos Bela Orchestra, "I Pagliacci" Selection (Leoncavallo).

Frank Westfield's Orchestra, "The Druid's Prayer" (Davson).

Orchestra of the Opera Comique, Paris, "Carmen" Overture (Bizet).

6.14: Tacet.

6.15: Edith Lorand's Orchestra, "Tales of Hoffmann" Fantasia (Offenbach).

Grand Symphony Orchestra, "L'Arlesienne Suite No. 1"; (a) "Minuet"; (b) "Adagietto" (Bizet).

6.29: Tacet.

6.30: Dajos Bela Orchestra, "La Traviata" Fantasia (Verdi).

Grand Symphony Orchestra, "L'Arlesienne Suite No. 2"; (a) "Intermezzo"; (b) "Farandole" (Bizet).

6.44: Tacet.

6.45: Edith Lorand's Orchestra, "Cavalleria Rusticana" (Fantasia).

Orchestra of the Opera Comique, Paris, "Carmen" Entr'acte (Bizet).

Frank Westfield's Orchestra, "Neapolitan Nights."

6.58: Tacet.

7.0: News session, market reports and sports results.

7.40: Lecturette—Mr. Colin Smith, "Radio as a Hobby—Construction and DXing."

8.0: Chimes.

Note.—During the course of this programme there will be a relay of a Sound Film Feature from the Majestic Theatre.

Overture—Orchestra (Conductor, Signor A. P. Truda), "Fantasia Vienna Echoes" (arr. Tobani).

Quartet—The Lyric, "Soldiers' Chorus" ("Il Trovatore") (Verdi).

'Cello—W. H. Squire, "Humoresque" (Dunkler-Squire).

Tenor—Mr. Chas. Williams, "O Vision Entrancing" (Goring Thomas).

Selection—Orchestra, "Lohengrin" (Wagner).

Recital—Mrs. Mark Tonks, "A Melting Story" (Mark Twain).

Bass—Mr. W. Binet Brown, "Drinking Song" (from "Merry Wives of Windsor") (Nicolai).

Organ—Charles W. Saxby, "Classica."

Mezzo-soprano—Miss Christina Young, (a) "Knowest Thou that Fair Land" (Thomas); (b) "Caro Mio Ben" (Giordanni).

Selection—Orchestra, "Tristan and Isolde" (Wagner).

Weather report and station notices.

Piano—Miss Gladys Morgan, "Canzonetta" (Huerter).

Tenor—Mr. W. Roy Hill, "Song of the Road" (from "Hugh the Drover") (Vaughan Williams).

Band—H.M. Grenadier Guards, "New Sullivan Selection."

Baritone—Mr. Will Goudie, "O Star of Eve" (Wagner).

Instrumental—Orchestra, "Ballet Music" (from "Carmen") (Bizet).

Humorous recital—Mrs. Mark Tonks, "A Study in Physiognomy."

Band—H.M. Coldstream Guards, Overture to "Pique Dame" (Suppe).

Mezzo-soprano—Miss Christina Young, "Love Has Eyes" (Bishop).

Quartet—The Lyric, "Angelus" (from "Maritana") (Wallace).

Chorus—Harold Williams, Doris Vane and Chorus, (a) "The Song of the Vagabonds"; (b) "Only a Rose" (Hooker and Friml).

Intermezzo—Orchestra, "Little Miss Butterfly" (Cussans).

God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—FRIDAY, NOVEMBER 21.

3.0: Afternoon session—Gramophone recital.

4.25: Sporting results.

5.0: Children's hour, conducted by "Chuckie."

6.0: Dinner session:

New Symphony Orchestra, "Toy Symphony" (Romberg).

Concert Orchestra, "Minuet" (Boccherini).

International Novelty Orchestra, "Lazy Pete" (Kersten).

6.12: Tacet.

6.15: Zonophone Salon Orchestra, "Old Rustic Bridge" (Skelly).

International Novelty Orchestra, "Eva" Waltzes (Lehar).

Organ—Sidney Gustard, "Cuckoo" (Jonasson).

International Novelty Quartet, "Over the Waves" (Rosas).

6.28: Tacet.

- 6.30: International Novelty Orchestra, "Carmen Sylva" (Ivanovici).
 Zonophone Salon Orchestra, "Killarney" (Balfe).
 International Novelty Orchestra, "Parade of the Wooden Soldiers."
 International Novelty Quartet, "See Me Dance the Polka" (Grosssmith)
- 6.43: Tacet.
- 6.45: Concert Orchestra, "Sous Bois" (Staup).
 Organ—Sandy Macpherson, "I Promise" (Hirsch, Wilhite).
 National Symphony Orchestra, "Zampa" Overture, Parts 1 and 2
- 6.58: Tacet.
- 7.0: News session.
- 7.30: Talk—Mr. Selwyn Bruce, "Early Lyttelton and Christchurch."
- 8.0: Chimes. Popular and Dance Programme.
 Overture—Australian Commonwealth Band, "Hail Storm" (Rimmer).
- 8.3: Mezzo-soprano—Mrs. Grace Empson, (a) "Cherry Ripe" (Horn), (b) "Thank God for a Garden" (Del Riego).
- 8.9: Studio Instrumental Octet (Conductor Harold Beck), "Stradella" Overture (Flotow).
- 8.16: Baritone—Mr. Clive Hindle, (a) "The Showman" (James), (b) "I'm a Cornish Man" (Henty).
- 8.23: Humour—Mr. L. T. J. Ryan, "The Street Watchman's Story" (Winter).
- 8.28: Contralto—Miss Nancy Bowden, (a) "To Sing Awhile" (Drummond), (b) "When the House is Asleep" (Haigh).
- 8.34: Studio Instrumental Octet, "My Lady Frayle" (Finck).
- 8.41: Mezzo-soprano—Mrs. Grace Empson, (a) "Banjo Song" (Homer), (b) "You'll Get Heaps of Lickins" (Peel).
- 8.47: Studio Instrumental Octet, Welsh selection, "The Leek" (Myddleton).
- 8.55: Baritone—Mr. Clive Hindle, "The Jester" (Lissenden).
- 9.0: Weather forecast and station notices.
- 9.2: Studio Octet, (a) "Slave Dance" (Pratt), (b) "Tin Soldiers" (Kockert)
- 9.10: Contralto—Miss Nancy Bowden, (a) "A Soft Day" (Stanford), (b) "Loveliest of Trees" (Peel).
- 9.16: Humour—Mr. L. T. J. Ryan, "Bridegroom Oratory" (MS.).
- 9.20: Studio Octet, valse, "Vienna Life" (Strauss).
 Dance music until 11 p.m.:
- 9.30: Foxtrots—The Harmonians with vocal chorus, "I'm in Seventh Heaven"
 The Knickerbockers with vocal chorus, "Used to You."
 Ernie Golden and His Orchestra with vocal chorus, "Satisfied" (Friend and Caesar).
- 9.42: Vocal—Eddie Walters, with piano and guitar accompaniment, "Goodness Gracious Gracie" (Abbott, Case, Wimbrow).
 Foxtrots—Stellar Dance Band, "Dancing Goblin," novelty foxtrot.
 Harry Reser's Syncopators with vocal chorus by Tom Stacks, "The Flippity Flop" (Coslow, Robin, and Whiting).
 Stellar Dance Band, "Giggling Goliwog," slow foxtrot.
 Waltz—Ben Selvin and His Orchestra, "I've Waited a Lifetime for You."
- 9.57: Duet—Ford and Glenn with novelty accompaniment, "Where the Sweet Forget-Me-Nots Remember" (Dixon-Warren).
 Foxtrots—Guy Lombardo and His Royal Canadians with vocal trio, "Then We Canoe-die-oodle Along."
 Ben Selvin and His Orchestra, with vocal chorus, "Junior."
 The Midnight Revellers, with vocal refrain, "True Blue Lou."
 Ipana Troubadours, with vocal refrain, "There Was Nothing Else To Do" (Kalmar, Ruby, and Warren; "Just a Glimpse of Paradise" (Kalmar, Ruby, and Warren).
- 10.15: Duet—Pearce Brothers. (Al and Cal), "If I Give Up the Saxophone."
 Foxtrots—Ben Selvin and His Orchestra, "Am I Blue?"
 The Midnight Revellers, "If I Had My Way."
 Ted Florito and His Edgewater Beach Hotel Orchestra, "Candle-Light Lane" (Lewis and Florito).
 Waltz—Frank Ferera's Hawaiian Trio with vocal chorus, "Pagan Love Song" (Brown and Freed).
 Foxtrot—Guy Lombardo and His Royal Canadians, "You Want Lovin'."
- 10.30: Vocal—Marie Burke, "The Song I Love" (De Sylva, Brown, Henderson).
 Foxtrots—Guy Lombardo and His Royal Canadians, "Here We Are."
 Ted Florito and His Edgewater Beach Hotel Orchestra, "You've Never Been Blue" (Lewis, Young, and Florito).
 Ted Lewis and His Band with vocal refrain, "My Love Song."
- 10.45: Duet—The Two Gilberts Comedians with orchestra, "Smith's Crisp Crisps" (Weston, Lee, and Weston).
 Foxtrots—Ray Starita and His Ambassadors Band, "Iz Izzy Azzy Wozz" (A. le Clerq).
 Harry Rester's Syncopators with vocal refrain, "Piccolo Pete"
 Waltz—Frank Ferera's Hawaiian Trio with vocal chorus, "Ua Like A No A Like" (Everett).
- 11.0: God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—FRIDAY, NOVEMBER 21.

- 3.0: Chimes. Selected gramophone items.
- 3.15: Talk—Miss Buccleugh, "Fashions."
- 4.25: Sporting results.
- 5.0: Chimes. Children's hour, conducted by Aunt Sheila.
- 6.0: Dinner music.
 New Mayfair Orchestra, "Sally" Selection (Kern).
 Organ—Sandy Macpherson, "L'Heure Bleu" (Spolianski).
- 6.14: Tacet.
- 6.15: Paul Whiteman and His Concert Orchestra, "Midnight Reflections."
 Zonophone Salon Orchestra, "Sweet Adeline" (Armstrong).
 Cello—Beatrice Harrison, "Hassan" Serenade (Delius).
 Paul Whiteman and His Concert Orchestra, "Soliloquy" (Bloom).
- 6.20: Tacet.

- 6.30: Band of H.M. Coldstream Guards, "Floradora" Selection (Stuart).
 Organ—Sandy Macpherson, "In An Old World Garden" (Pepper).
 Zonophone Salon Orchestra, "In the Shadows" (Finck).
- 6.44: Tacet.
- 6.45: Jack Hylton and His Orchestra, "Memories of Paris" (Padilla).
 Cello—Beatrice Harrison, "Melody" (Dawes).
 New Mayfair Dance Orchestra, "Waltz Medley."
- 6.58: Tacet.
- 7.0: News session.
- 8.0: Special Choral Programme by Choir of St. Joseph's Cathedral, under the conductorship of Mr. A. Vallis, assisted by 4YA Studio Trio.
 Chorus—The Choir, "Gloria" (from "12th Mass") (Mozart).
 Part songs—"The Minstrel Boy" (arr. Vallis); "West's Awake."
- 8.11: Cello—Gaspar Cassado, "Menuett" (Haydn).
- 8.14: Duet—Mr. and Mrs. F. Woods, "In the Garden of My Heart" (Ball).
- 8.17: Gregorian chant—The Choir, "Kyrie" (des Angelis); "Ave Maria."
- 8.21: Instrumental—Trio, "Allegro Moderato in B Flat" (Schubert).
- 8.31: Contralto and trio—Mrs. McCready, Mesdames F. and L. Woods and Mr. F. Woods, "Hark What I Tell to Thee" (Haydn); "Et Unam Sanctum" (Mercadante).
- 8.40: Piano—Percy Grainger, (a) "Country Gardens" (Grainger); (b) "Shepherd's Hey" (Grainger).
- 8.46: Choral—Choir, "There is a Green Hill" (Gounod).
- 8.51: Instrumental—Trio, "Scherzo" (from "7th Trio") (Beethoven).
- 8.59: Weather report and station announcements.
- 9.1: Band—H.M. Grenadier Guards, (a) "Bond of Friendship" (Rogan); (b) "Strauss' March" (Mezzacopi).
- 9.9: Soprano—Mrs. L. Woods, "La Marseillaise" (in French) (Lisle).
- 9.13: Anthem—Choir, "O Gladsome Light" (Sullivan).
- 9.17: Instrumental—Trio, "Finale from Symphony in E Flat" (Mozart).
- 9.25: Recital—Mr. A. Patterson, "Father Reilly's Horse."
- 9.29: Duet—Messrs. H. Popplewell and J. Devereux, "Estudiantina."
 Choral—Choir, "Canonvale" (Rossini).
- 9.36: Instrumental—Trio, "2nd Movement from Trio in D" (Mendelssohn).
- 9.42: Soprano—Miss C. Dillon, "Recitation and Aria" (from "La Traviata").
- 9.46: Duet—Miss C. Dillon and Mr. D. Fogarty and Chorus, "Miserere."
- 9.50: Duet—Messrs. Stark and McTigue, "Nocturne" (Denza).
 Soprano—Miss Gallien, "Hush, My Little One" (Bevigrani).
- 9.57: Part song—The Choir, "Good-night, Beloved" (Pinsuti).
- 10.1: Victor Symphony Orchestra, "Cloister Scene" (Rubinstein).
- 10.5: God save the King.

Saturday, November 22

1YA, AUCKLAND (900 KILOCYCLES)—SATURDAY, NOVEMBER 22.

- 11.45: Relay—Otahuhu Trotting Club's Meeting at Alexandra Park, interspersed with gramophone items.
- 5.0: Children's session, conducted by "Cinderella."
- 6.0: Dinner session.
 Edith Lorand's Orchestra, "Johann Strauss" Fantasia (Strauss).
 Piano and orchestra—Raie da Costa and Orchestra, "When Day is Done" (de Sylva).
- 6.12: Tacet.
- 6.15: Hawaiian—David Kailli, "Honolulu March."
 Organ—Leslie Harvey, "Where the Shy Little Violets Grow" (Warren).
 Dajos Bela Orchestra, "The Grenadiers" (Waldteufel).
 Saxophone—Arnold Brillhart, "Fascination" (Bernie).
- 6.28: Tacet.
- 6.30: Dajos Bela Orchestra, "Polish Life" (Nedbal).
 Piano and orchestra—Raie da Costa and Orchestra, "Sweetheart, I'm Dreaming of You" (Carter).
 Dajos Bela Orchestra, "Dancing Demoiselle" (Fall).
- 6.42: Tacet.
- 6.45: Edith Lorand's Orchestra, "Dollar Princess" (Fall).
 Dajos Bela Orchestra, "Casino Tanze" (Gungl).
- 6.57: Tacet.
- 7.0: News and market reports.
- 7.40: Talk—Mr. A. E. McMahon, "Gardening."
- 8.0: Chimes.
 Overture—Band of H.M. Grenadier Guards, "A Princess of Kensington" (German).
- 8.9: Bass-baritone—Mr. Arthur Wright, "The Crown of the Year" (Martin)
- 8.13: Selection—String Octet, under direction of J. Whitford Waugh, "Firefly" Selection (Friml).
- 8.23: Novelty—Mister Ree, "Radio Magic."
- 8.38: String Octet, (a) "Flight of the Bumble Bee" (Korsakov); (b) "Humoresque" (Dvorak).
- 8.44: Soprano—Mrs. Hal McLennan, "Sing, Joyous Bird" (Phillips), "I Hid My Love" (d'Hardelet).
- 8.51: Comedy—Flotsam and Jetsam, "Schubert's Toyshop."
- 8.55: Humour—Mr. T. T. Garland, "Some Humour."
- 9.0: Evening weather forecast and announcements.
- 9.2: Selection—String Octet, "Primrose Selection" (Gershwin).
- 9.12: Bass-baritone—Mr. Arthur Wright, (a) "Beating Up the Channel" (Sanderson); (b) "A Chip of the Old Block" (Squire).
- 9.19: Comedy—Flotsam and Jetsam, "Polonaise in the Mall."
- 9.23: Soprano—Mrs. Hal McLennan, "Love's a Sailor" (Kent), "What's in the Air To-day" (Eden).
- 9.29: String Octet—Miniature Suite, (O'Donnell); (a) "Canzonetta"; (b) "Pizzicato"; (c) "Caprice."

- 9.39: Humour—Mr. T. T. Garland, "A Fireside Chat."
 9.46: Xylophone—Rudy Starita, "The Punch and Judy Show" (Black).
 9.50: String Octet, Three Dances from "Tom Jones" (German); (a) "Morris Dance"; (b) "Gavotte"; (c) "Jig."
 10.0 : Programme of Dance Music.
 Foxtrots—Waring's Pennsylvanians, "With You" (Berlin).
 Leo Reisman and His Orchestra, "Charming."
 Waring's Pennsylvanians, "There's Danger in Your Eyes, Cherie" (Richmond, Meskill, Wendling).
 10.12: Waltz—Leo Reisman and His Orchestra, "Shepherd's Sweetheart."
 Foxtrots—Rudy Vallee and His Connecticut Yankees, "Celebrated Stein Song" (Fenstad, Colcord, Vallee).
 Jack Hylton and His Orchestra, "Bunkie Doodle-I-Doh."
 10.21: Vocal—Chick Endor, "Singin' in the Bath" (Magidson, Washington, Cleary).
 10.24: Foxtrots—The High Hatters, "In My Little Hope Chest."
 Jack Hylton and His Orchestra, "We're Uncomfortable."
 The High Hatters, "Sing You Sinners" (Coslow, Harling).
 Waltz—George Olsen and His Music, "Romance" (Leslie, Donaldson).
 10.36: Foxtrots—Nat Shilkret and His Orchestra, "When I'm Looking at You" (Grey, Stothart).
 George Olsen and His Music, "After a Million Dreams."
 Nat Shilkret and His Orchestra, "The Rogue Song."
 10.45: Vocal—Chick Endor, "Lady Luck" (Perkins).
 10.48: Foxtrots—George Olsen and His Music, "I'm on a Diet of Love."
 Jack Hylton and His Orchestra, "House on the Hill Top."
 George Olsen and His Music, "Mona."
 Jack Hylton and His Orchestra, "Dreamy Honolulu."
 11.0 : God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SATURDAY, NOVEMBER 22.

- 3.0 : Chimes. Selected studio items.
 3.30 and 4.30: Sporting results to hand.
 5.0 : Children's session, conducted by Uncle Toby.
 6.0 : Dinner music session.
 Waltz—International Concert Orchestra, "Over the Waves" (Rosas).
 Paul Whiteman and His Concert Orchestra, "High Water."
 Hilo Hawaiian Orchestra, "My Hula Love" (Kealakai).
 Zonophone Salon Orchestra, "Simple Aveu" (Thome).
 6.13: Tacet.
 6.15: Paul Whiteman and His Orchestra, "Mississippi" Suite (Grove).
 Organ—Edward O'Henry, "Chant Sans Paroles" (Tschalkowsky).
 Zonophone Salon Orchestra, "Narcissus" (Nevin).
 6.29: Tacet.
 6.30: Waltz—International Concert Orchestra, "Danube Waves."
 Hilo Hawaiian Orchestra, "Kawaihau Waltz" (Kealakai).
 Paul Whiteman and His Concert Orchestra, "Caprice Futuristic."
 Organ—Edward O'Henry, "Ca CE'st Madrid" (O'Henry).
 6.44: Tacet.
 6.45: Hylton's Orchestra, "Good Old Songs" Selection.
 International Concert Orchestra, "Barcarolle" (From "Tales of Hoffman") (Offenbach).
 New Light Symphony Orchestra, "Cavalleria Rusticana" Intermezzo.
 6.59: Tacet.
 7.0 : News session, market reports and sports results.
 8.0 : Chimes. A Relay from the Town Hall of the Wellington Harmonic Society's Final Concert of the 1930 season. Conductor: Mr. H. Temple White. Accompanist: Mr. Clement Howe.
 Chorus—The Choir, "Beyond the Spanish Main" (Armstrong-Gibbs).
 Part Song—Choir, "I Loved a Lass" (Dyson); "In the Merry Spring."
 Violin—Mr. Leon de Mauny, "Sonata in A Major" (Handel).
 Part song—Choir, "The Dawn of Song" (Bairstow).
 Choral song—Choir, "Seraphic Song" (Rubinstein, arr. Gaines).
 From the studio. Weather report and station notices.
 Part song—Choir, "London Town" (German).
 Part song—The Ladies, "The Two Clocks" (Rogers).
 Violin—Mr. Leon de Mauny, "Hymn to the Sun."
 Part song—Choir, "Unto Us a Son is Given" (Freer); "A Cradle Song" (Wheeler).
 Choral Fantasia—Choir, "Faust" (Gounod, arr. Challinor).
 10.0 (approx.): Dance programme from studio.
 Foxtrots—Abe Lyman and His Californian Orchestra, "Another Night." (Davis-Coots).
 Meyer Davis' Hotel Astor Orchestra, "If I Had My Way."
 Abe Lyman and His California Orchestra, "I'm Only Making Believe" (Davis-Coots).
 Chic Scoggin and His Pla-mor Orchestra, "If I Could Write a Song" (Fulcher).
 Waltz—Meyer Davis' Hotel Astor Orchestra, "There Must Be Somebody Waiting For Me" (Donaldson).
 10.15: Foxtrots—Jesse Crawford and His Orchestra, "The Prep Step."
 Irving Mills and His Hotsy Totsy Gang, "Manhattan Rag."
 Jesse Stafford and His Orchestra, "My Sweeter Than Sweet" (Marion-Whiting).
 Vocal—Chester Gaylord, "Dance Away the Night."
 Foxtrots—Irving Mills and His Hotsy Totsy Gang, "What Kind of a Man is You" (Carmichael).
 Tom Gerun and His Orchestra, "One Sweet Kiss."
 Jack Denny and His Mount Royal Hotel Orchestra, "The End of the Lonesome Road" (Rudy Perkins).
 Waltzes—Abe Lyman and His California Orchestra, "If I'm Dreaming" (Dubin Burke); "The Shepherd's Senerade."

- 10.42: Vocal—Chester Gaylord, "Just You, Just Me" (Klages-Greer).
 Foxtrots—Tom Gerun and His Orchestra, "Some Day Soon."
 Jack Denny and His Mount Royal Hotel Orchestra, "Scotch" (White).
 Foxtrots—Abe Lyman and His California Orchestra, "Sally" (Dubin Burke); "If He Cared" (Grey Stothart).
 Chic Scoggin and His Pla-Mor Orchestra, "She Chills Me."
 11.0 : Sporting summary.
 11.10: God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SATURDAY, NOVEMBER 22

- 3.0 : Afternoon session—Gramophone recital.
 4.25: Sports results.
 5.0 : Children's hour, "Aunt Pat and Uncle Charlie."
 6.0 : Dinner session.
 Selection—Edith Lorand's Orchestra, "The Vagabond King" (Friml).
 Dajos Bela Orchestra, "The Swallows" (Strauss).
 6.12: Tacet.
 6.15: Selection—Frank Westfield's Orchestra, "Chu Chin Chow" (Norton).
 Dajos Bela Orchestra, "O Sole Mio" (arr. Lindemann).
 Wurlitzer organ—Leslie Harvey, "Absent" (Metcalfe).
 6.29: Tacet.
 6.30: Waltzes—Dajos Bela Orchestra, (a) "Oh, Spring How Fair Thou Art" (Läncke); (b) "Songs D'Amour Apres Le Bal" (Czibulka).
 Dajos Bela Orchestra, "Humoresque" (Dvorak).
 6.42: Tacet.
 6.45: Dorsey Bros.' Orchestra, "Was It a Dream?" (Coslow).
 Wurlitzer organ—Leslie Harvey, "Until" (Sanderson).
 Waltz—Dajos Bela Orchestra, "Faust" (Gounod).
 6.55: Tacet.
 7.0 : News session.
 7.30: Sports results.
 8.0 : Chimes. Vaudeville Programme by "The Optimist Club." Pianist: Mr. Melville Lawry.
 Overture—Paul Whiteman's Orchestra, "Caprice Futuristic."
 8.4 : Choruses—Optimists Party, (a) "Pack Up Your Troubles" (Anon); (b) "Roses and Radishes" (Anon); (c) "My Old Kentucky Home" (Foster).
 Soprano—Miss Marjorie Nelson, (a) "Quiet" (Sanderson); (b) "This Little Pig Goes to Market" (Holland).
 8.20: Comedy—Gotham Comedy Quartet, "King Arthur" (Traditional).
 Baritone—Mr. W. J. Spratt, (a) "The Wheel Tapper's Song" (Charles); (b) "Song of the Waggoner" (Breville-Smith).
 Recitation—Mr. Mark Richards, "Judd Browning's Account of Rubenstein's Playing" (Moses Adams).
 Male quartet—Optimist Four, "Lullaby" (Brahms).
 8.40: Organ—Stanley MacDonald, (a) "Was It a Dream?" (Coslow); (b) "Nicolette" (Batten).
 8.46: Tenor—Optimist Jim, "My Dreams" (Tosti).
 Choruses—Optimists Party, (a) "Stockriders' Song" (with chorus) (James); (b) "There is a Tavern in the Town" (Anon); (c) "The Three Crows" (Anon).
 8.58: Plaza Theatre Orchestra, "My Lady Dainty" (Hesse).
 9.1 : Weather forecast and station notices.
 9.3 : Novelty—Gotham Comedy Quartet, "The Old Sow" (Traditional).
 9.6 : Bass-baritone—Mr. J. L. Tennant, (a) "Spanish Song—Muleteer of Malaga" (Trotter); (b) "Old Barty" (Douglas Grant).
 Contralto—Mrs. F. M. Kerr, (a) "Fisher Lad" (Day); (b) "The Songs My Mother Sang" (Grimshaw).
 9.20: Banjo and banjo-lone trio—Misses E. Churchill and M. and L. Straw, (a) "Circus Parade" (Morley); (b) "Painting the Clouds With Sunshine" (from Gold Diggers) (Dubin Burke).
 9.27: Duet, tenor and bass—Messrs. Jas. Shaw and J. L. Tennant, "Flow Gentle Deva" (Parry).
 Recitation—Mr. Mark Richards, "Pat's Excelsior" (Anon).
 Male quartet—Optimist Four, "A Catastrophe" (Sprague).
 9.37: Comedy—Seamus O'Doherty, "The Stutterin' Lovers."
 9.40: Baritone—Mr. O. M. Jones, (a) "Friend of Mine" (Sanderson); (b) "The Carnival" (Molloy).
 Choruses—Optimists Party, (a) "Little Brown Jug" (Anon); (b) "My Bonny" (Anon); (c) "Soldiers' Chorus" (from "Faust").
 9.56: Paul Godwin's Orchestra, (a) "Firefly's Idyl" (Läncke).
 Vienna Schrammel Quartet, (b) "Firefly's Appointment" (Siede).
 Dance music until 11 p.m.
 10.0 : Foxtrots—Waring's Pennsylvanians, "Won't You Tell Me, Hon?"
 Rio Grande Band, "Dites Moi Ma Mere" (Yvain).
 Rudy Vallee and His Connecticut Yankees, "The Album of My Dreams" (Davis-Arluck).
 Rio Grande Band, "Valentine" (Christine).
 10.12: Vocal—Maurice Elwin, "I've Never Seen a Smile Like Yours."
 Foxtrots—Irving Aaronson and His Commanders, "Outside" (Flynn).
 George Olsen and His Music, "I'm in Seventh Heaven."
 Rudy Vallee and His Connecticut Yankees, "Me Queres?"
 Rudy Vallee and His Connecticut Yankees, "You Want Lovin'" (Osterman).
 Waltz—Nat Shilkret and His Orchestra, "Let Me Have My Dreams."
 10.30: Humorous duet—Dora Maughan and Walter Fehl, "A Woman Who Knows" (Ruskin).
 Foxtrots—George Olsen and His Music, "Little Pal" (de Sylva).
 Jack Hylton and His Orchestra, "Everybody Loves You."
 Rudy Vallee and His Connecticut Yankees, "Lonely Troubadour" (Klenner).

- Nat Shilkret and His Orchestra, "Am I Blue?"
 10.45: Vocal—Paul Oliver, "Evangeline" (Rose, Jolson).
 Foxtrots—Jack Hylton and His Orchestra, "Don't Hold Everything."
 Rudy Vallee and His Connecticut Yankees, "Perhaps" (Razaf); "On the Alamo" (Kahn).
 Waltz—Jack Hylton and His Orchestra, "Let Me Dream in Your Arms Again" (Nicholls).
 11.0 : God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SATURDAY, NOVEMBER 2.

- 3.0 : Chimes. Selected gramophone items.
 5.0 : Chimes. Children's hour, conducted by Uncle Sambo.
 6.0 : Dinner music session.
 March—National Military Band, "National Emblem" (Bagley).
 Cello—W. H. Squire, "The Broken Melody" (Van Biene).
 Albert Sandler's Orchestra, "I Kiss Your Hand, Madame" (Erwin).
 Cinema organ—G. T. Pattman, "Cherie Waltz" (Valentine).
 6.12: Tacet.
 6.15: Court Symphony Orchestra, "The Gondoliers" (Sullivan).
 Paul Whiteman's Orchestra, "Gypsy" (Gilbert).
 6.27: Tacet.
 6.30: Albert Sandler's Orchestra, "Chalita" (Schertzing).
 Padilla's Marimba Serenaders, "Paree" (Padilla).
 Piano—Gil Dech, "Sometimes I'm Happy" (Younmans).
 Royal Serbian Tambouritzas Orchestra, "Serbian Melody."
 6.42: Tacet.
 6.45: Ketelbey's Orchestra, "Bells Across the Meadow" (Ketelbey).
 Rio Marimba Serenaders, "Dolores" Waltz (Waldteufel).
 Organ—G. T. Pattman, "Worryin' Waltz" (Fairman).
 March—National Military Band, "Stars and Stripes" (Sousa).
 6.57: Tacet.
 7.0 : News session.
 8.0 : Relay of Vaudeville Programme from 3YA, Christchurch.
 10.0 : Dance session.
 Foxtrots—Jack Payne and the B.B.C. Dance Orchestra, "Get Up Nice and Early" (Sarony).
 Stellar Dance Band, "The Toymaker's Dream" (Golden).
 Hal Swain and His Band, "Am I Blue" (Clarke and Akst).
 Stellar Dance Band, "I'm Thirsty for Kisses, Hungry for Love."
 10.12: Vocal—Buddy Morgan and His Veterans, "Don't Get Collegiate."
 Foxtrots—Ray Starita and His Ambassadors, "That's What I Call Heaven" (Wimbrow).
 Ipana Troubadours, "Steppin' Along" (Kernell); "There's Too Many Eyes that Wanna Make Eyes at Two Pretty Eyes I Love" (Davis).
 Waltzes—Stellar Dance Band, "Sleepy Valley" (Hanley).
 Hal Swain and His Band, "Let Me Have My Dreams."
 10.30: Vocal—Pete Woolery, "Beautiful" (Stern).
 Foxtrots—Stellar Dance Band, "Lonesome Little Doll" (Cowan).
 Paul Whiteman and His Orchestra, "At Twilight" (Tracy).
 Jack Payne and the B.B.C. Dance Orchestra, "Wake Up and Dream" (Cole, Porter).
 Ipana Troubadours, "Too Wonderful for Words" (Stamper).
 10.45: Vocal—Buddy Morgan and His Veterans, "Sergeant Flagg and Sergeant Quirt" (Klein).
 Foxtrots—Jack Payne and the B.B.C. Dance Orchestra, "Wake Up and Dream—Looking at You" (Cole, Porter).
 Paul Whiteman and His Orchestra, "When You're Counting the Stars Alone" (Rose); "Let's Do It" (Porter).
 Waltz—"Love Me" (Morse).
 11.0 : God save the King.

Sunday, November 23

1YA, AUCKLAND (900 KILOCYCLES)—SUNDAY, NOVEMBER 23.

- 3.0 : Relay from Scotts Hall, lecture on "Christian Science" by Judge Samuel W. Greene, C.S.B., of Chicago, Ill., U.S.A., under the auspices of First Church of Christ Scientist, Auckland.
 4.0 : Selected gramophone items from the studio.
 6.0 : Children's song service, conducted by "Uncle Bert."
 6.55: Relay of Divine Service, Beresford Street Congregational Church.

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Preacher, Rev. Albert V. Whitting; Choirmaster, Mr. William Gemmell; Organist, Mr. Arthur Cherry.

- 8.30: (approx.): Johann Strauss and Symphony Orchestra, "Doctrinen."
 Contralto—Miss Norma M. Calder, (a) "Here in the Quiet Hills" (Carne), (b) "The Wind" (Spross).
 Studio Trio—(a) "Menuet" (Bach), (b) "Preislied" (Wagner).
 Baritone—Mr. John Bree, "Laddy Mine" (Lohr).
 Piano—Mr. Eric F. B. Waters, "Autumn" (Chaminade).
 Organ—Stanley Roper, "Imperial March" (Elgar).
 Violin and piano—Messrs. J. Whitford Waugh and Cyril Towsey, "Sonata No. 4" (Handel).
 Contralto—Miss Norma M. Calder, "Summer Rain" (Willeby).
 Studio Trio—"Scherzo and Finale" from "Grand Trio Concertante" (Spohr).
 Baritone—Mr. John Bree, (a) "The Rose of Tralee" (Spencer), (b) "Simon the Cellarer" (Hatton).
 Johann Strauss and Symphony Orchestra, "When the Lemons Bloom."
 9.30 (approx.): God save the King.

2YA, WELLINGTON (720 KILOCYCLES)—SUNDAY, NOVEMBER 23.

- 3.0 to 4.30: Afternoon session of selected gramophone items.
 6.0 : Children's song service conducted by "Uncle George," assisted by the Vivian Street Baptist Sunday School Choir.
 7.0 : Relay of evening service of St. Thomas's Anglican Church, Wellington South. Preacher: Rev. W. Bullock, Vicar of St. Peter's Church; Organist and Choirmaster, Mr. W. A. Gatheridge.
 8.15 (approx.): Studio concert by the Salon Orchestra and Etude Quartet:
 Selection—Salon Orchestra (Conductor, Mr. M. T. Dixon), "Lucia di Lammermoor" (Donizetti).
 Quartet—The Etude, "See Our Oars With Feathered Spray."
 Soprano—Miss Greta Stark, "Had You But Known" (Denza).
 Band—H.M. Coldstream Guards, (a) "Pirates of Penzance," (b) "Tolanthe" (Sullivan).
 Baritone—Mr. Ray Kemp, "Thanks Be To God" (Dickson).
 Reverie—Salon Orchestra, (a) "The Sacred Hour" (Ketelbey), (b) selection, "Adagio Religioso" (Bohm).
 Contralto—Mrs. Ray Kemp, "He Wipes the Tear" (Lee).
 Arthur Pryor's Band, "Officer of the Day" (Hall).
 Weather report and station notices.
 Selection—Salon Orchestra, "Brahms Memoiren" (Morena).
 Tenor—Mr. Will Hancock, "In a Monastery Garden" (Ketelbey).
 Duet—Mr. and Mrs. Ray Kemp, "The Voyagers" (Sanderson).
 Chorus—Royal Opera Chorus, (a) "Opening Chorus," (b) "Pilgrims Chorus" from "Boris Godounov" (Moussorgsky).
 Selection—Salon Orchestra, "The Lost Chord" (Sullivan).
 Bells—W. E. Jordan, (a) "Spring Song" (Mendelssohn), (b) "Country Dance" (Newton).
 Quartet—The Etude, "Peaceful Slumbering on the Ocean" (Storace).
 Selection—Salon Orchestra, "By the Lake of Geneva," Part 1 (Bendel).
 God save the King.

3YA, CHRISTCHURCH (980 KILOCYCLES)—SUNDAY, NOVEMBER 23.

- 3.0 : Afternoon session—Gramophone recital.
 5.30: Children's song service by children from Presbyterian Sunday Schools.
 6.15: Chimes from studio.
 6.30: Piano—Miss Dorothy Davies, "Prelude in A Flat" (Chopin).
 6.35: Christchurch Broadcasting Trio, "Allegro Vivace" (Beethoven).
 6.44: Vocal—Irish Male Quartet, "Holy God, We Praise Thy Name."
 6.47: Broadcasting Trio, (a) "Entr'acte" from "Rosamund" (Schubert), (b) "Waltz" (Rebikof).
 6.55: Duet—Lucrizia Bori and Lawrence Tibbett, "Calm as the Night."
 7.0 : Relay of evening service from St. Paul's Presbyterian Church.
 Preacher, Rev. W. Bower Black; Organist, Mr. Norman Williams; Choir Conductor, Mr. H. Blakeley.
 8.15 (approx.): Relay of band programme from His Majesty's Theatre, Ashburton, by the Silver Band (Conductor H. J. Osborne).
 God save the King.

4YA, DUNEDIN (650 KILOCYCLES)—SUNDAY, NOVEMBER 23.

- 3.0 : Chimes. Selected gramophone items.
 5.30: Children's song service, conducted by Big Brother Bill.
 6.45: Relay of evening church service from Salvation Army Citadel Church.
 Preacher, Captain Chandler; Band Conductor, Mr. Millard.
 8.15: Relay through 3YA, Christchurch, of concert by the Ashburton Silver Band from His Majesty's Theatre, Ashburton, under the conductorship of Mr. H. J. Osborne.
 God save the King.

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Is The Second Greatest Radio Problem Solved?

New Receiver Promises to Prevent Station Interference

OUTSTANDING claims are made for a new British receiver, the Stenode Radiostat, which promises to solve the great radio problems of overcrowding channels. It is heralded as the greatest single invention in radio since the introduction of the thermionic valve. From the "Christian Science Monitor" we take the following description:—

THE Stenode Radiostat system comprises a number of patents relating to the inventions of Dr. James Robinson, late chief of wireless research to the Royal Air Force, which have a very important bearing not only upon wireless telegraphy and broadcasting, but also upon cable and land line working and television.

Toward the end of last year, a demonstration of a Stenode Radiostat broadcast receiver was given to the trade and technical press, and at a dinner given at the Hyde Park Hotel, a number of highly important and even sensational claims were made for the Stenode Radiostat. The actual demonstration given was the reception of Brookmans Park on a loud-speaker, while a powerful local oscillator was made to produce very bad heterodyne interference on a normal receiving set in the same room. When tuned in on the Stenode Radiostat receiver it was shown that Brookmans Park could be received entirely free from any heterodyne interference.

A disclosure of the actual circuit and apparatus used was not given at this time owing to the patent position as many of the important devices used were only provisionally covered. Furthermore, the apparatus then demonstrated was not in a suitable form adequate to demonstrate long distance reception.

Critics Dubious.

OWING to the limited nature of the demonstration, a number of criticisms were quite fairly made.

One critic, for example, made a comment on the claims in the following terms: "It would be interesting to know to what degree sensitivity has been sacrificed to obtain this result."

"We await further details, especially as to the actual results obtained in practice. We would suggest as a useful test the reception in London of Stuttgart (833 k.c.) while 2LO (842 k.c.) is working. In view of the claims made for the system we feel, however, that we should apologise for suggesting anything so easy."

A demonstration was given showing, for example, the test suggested above, i.e., the separation of Stuttgart from London, and, much more important than this, that stations which are actually heterodyning one another are proving by the heterodyne note that the separation is only 1000 or 2000 cycles, can be clearly separated and received in good quality.

The sensitivity of the apparatus is now such that there was no need to produce the interference locally in order to demonstrate the principle, while it will be noticed that the quality of reproduction was of a very high order, giving a proper reproduction of all frequencies from the lowest to the highest.

It is interesting here to consider for a moment the present position in relation to broadcast transmissions. By general consent of wireless authorities throughout the world, radio telephony stations cannot be placed closer than 9000 or 10,000 cycles, for three reasons: Firstly, it is claimed that satisfactory reception of all the frequencies which it is desired to include in broadcast reception cannot be effected unless the receiver responds not only to the carrier wave frequency but to a band of frequencies approximately 5000 cycles on each side of the carrier wave. Secondly, that if stations are placed closer than this the so-called side band frequencies will heterodyne with one another, producing interference. Thirdly, that the carrier waves will heterodyne, producing an audible beat note.

The purpose of this demonstration was not to deal with theories but with facts, and it was desired to show that the reception of the carrier wave alone, or rather the carrier wave with a very few cycles on either side, was sufficient to get a proper reception of all the modulations of radio telephony.

A Million Dollar Idea.

FOLLOWING these remarks, there was little made public for some six months, till in its most recent issue, "Radio News," in an editorial headed "A Million Dollar Idea," says:—

As this editorial is being written, engineering representatives of an English inventor, whose new system for radio transmission and reception may upset and greatly improve our present method, are preparing to leave London for New York. They are bringing models of receivers which they claim will enable us to operate three times the present number of broadcasting stations, without interference, on the present broadcast band. These new receivers are neither expensive nor difficult to build.

We must admit having been mildly impressed in much the same way when the first newspaper announcements of the Stenode Radiostat appeared about a year ago. The claims made for it were so broad that we took them with a grain of salt. We noted that they were being made in the name of a group of estimable English scientists, and decided that it might be well to investigate, even though the claims made in the newspaper articles could not be reconciled with current engineering practice.

A few years ago, when we organised the International Radio Broadcast tests, we were fortunate in having the hearty co-operation of Mr. Hugh S.

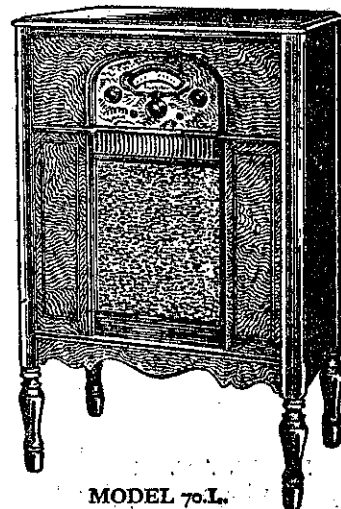
Pocock, editor of the "Wireless World" and "Radio Review," in London. The subject came up at one of our editorial meetings, and we decided upon to know him well, and to hold his further investigation. The reports judgment in high regard. We cabled for a report from him. It was not very encouraging. Nearly six months later the subject came up at one of our editorial meetings, and we decided upon further investigation. The reports were extremely interesting. We found that Mr. Percy Harris,

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formerly technical editor of Mr. Pock's publication, had resigned to become chief engineer of the British Broadcasting Corporation, Ltd. We wrote him and received a much more complete picture of the myriad applications which may be made of what apparently is the most startling invention of this decade.

We invited Mr. Harris and his associates to utilise the facilities of "Radio News" laboratory on their contemplated visit to this country, and are happy to announce their acceptance. Within a few weeks we expect to be able to demonstrate some of the simpler applications of Dr. James Robinson's extremely interesting invention.

Incidentally, many demonstrations have been made before the leading European scientific bodies, and many

governments are now investigating its operation. Among other things, the London "Daily Mail," which publishes in Manchester and in London, simultaneously, is now using the Stenode principle on a wire telegraph line between the two cities, with the result that the communication capacity of the lines has been increased many times.

So much has been said, and so much purposely left unsaid about television, that any reference to it usually compels attention.

Perhaps it is well, then, to say that in the opinion of the inventor, the Stenode Radiostat is the key to the broadcast television problem, because it will permit, within the limiting factors which other portions of the television problem

bring about, the establishing of many television broadcast channels without in any way limiting present broadcasting facilities.

Not the least interesting is the possible application of the Stenode application to amateur or "ham" activities. It is common knowledge that there is not sufficient room for these ardent investigators in the portions of the frequency spectrum assigned them by international agreement, through our own Department of Commerce. The section now allotted to the amateurs for radio telephone communication is particularly narrow, and radio telephones require a wider band for each station than is necessary for radio telegraphy. Without in any way altering international agreements on frequency allocation the Stenode, it is claimed, will allow the amateurs to increase the number of existing stations and enable them to improve the character of transmission and reception as well.

The Stenode applied to telephone and telegraph lines will, by increasing the number of conversations possible over each line, result in tremendous saving in equipment, and a great increase in telephone and telegraph facilities along with great reduction in the cost of these rapidly expanding services.

We have called the Stenode a "Million Dollar Idea." After learning of its multiplicity of applications, we feel sure that our estimate is conservative in the extreme. Perhaps we would be nearer the correct figure if we made it a billion. In any event, it is with keen gratification that "Radio News" will place all the authorised information by the inventor of the Stenode Radiostat at the disposal of the communications services of the world each month.

Another N.Z. Factory

A MATTER of general interest to radio dealers and listeners throughout the Dominion is the news that Messrs. Abel, Smeeton, Ltd., the well-known Auckland radio dealers, are to open a manufacturing department. Large and well-equipped premises have been secured for a factory, and it is apparent that some very interesting models can be looked for. It is reported that an all-electric, all-wave, all-British receiver will be one of the chief products of the new factory.

Messrs. Abel, Smeeton will commence their manufacturing activities under very favourable circumstances, as they have been fortunate enough to obtain the services of the engineering and technical staff of the manufacturing department of Messrs. J. Wiseman and Sons, Ltd., who are now in liquidation. The more valuable parts of the latter concern's factory, plant and machinery have also been secured.

The chief radio engineer will be Mr. H. E. Parsons, who was the originator and patentee of the now widely used wave-changing system by which the reception of short-wave broadcast is effected on an ordinary receiver without the necessity for changing coils.

The new factory is expected to be operating before the end of this month, and in the meantime we take the opportunity to wish the directors every success in their progressive enterprise.

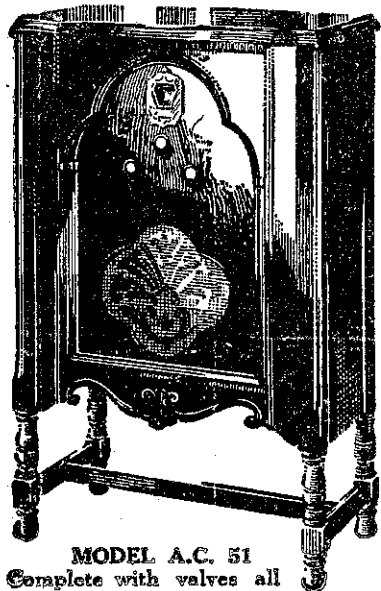
Improving Carborundum Detectors

QUITE a number of the cartridge type carborundum detectors fail to operate satisfactorily after having been in use for some time. The cartridge contains a compressed steel spring which ensures a high pressure contact between the steel plates and the crystal. By tapping the end of the detector with some force it is often possible to improve the sensitivity of the detector considerably. This suggestion must not be taken as infallible, since, in some instances, tapping will have no effect upon the operation of the detector. A stabilising voltage must be used in conjunction with the cartridge if results are to be expected.

AN unfortunate mistake in specifications occurred in the published description of the chokes for "A" eliminator. It was stated that if a lower resistance than .91 valves is required 10 s.w.g wire could be used. This should read 16 s.w.g. wire.

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Programme Features Broadcasting Theory

(Continued from page 17.)

obligato and piano and organ accompaniment, the part song "Unto Us a Son is Given," written for piano and organ accompaniment, and a choral fantasia of the opera "Faust." The choir will perform under the baton of Mr. H. Temple White. The supporting artists will be Mr. Leon de Mauny (violinist) and Miss Myra Sawyer (vocalist). Mr. de Mauny, who is one of the finest violinists in the Dominion, will play a sonata by Handel and Rimsky-Korsakoff's "Hymn to the Sun."

3YA's Programme

THE Optimists' Club will provide the concert, which will be of a vaudeville type. The Optimists have on a previous occasion entertained listeners when they presented an excellent programme, which will be excelled on this occasion. Some very popular choruses, such as "Pack up your Troubles," "Roses and Radishes," "My Old Kentucky Home," "The Stockrider's Song," "There is a Tavern in the Town," "Little Brown Jug," "My Bonny," and "The Soldiers' Chorus" (from "Faust"), will be sung. But the entertainment will by no means be confined to choruses; some excellent quartet and duet and solo numbers have been arranged. A banjo and banjoline trio, consisting of Misses E. Churchill and M. and L. Straw, will contribute items. Mr. Mark Richards, a very capable elocutionist, is also on the programme, which will also include a number of specially-selected records.

American Broadcasting

(Continued from page 1.)

spective chains of broadcasting stations. Such equipment was installed aboard destroyers, airplanes and dirigibles. These costly and elaborate installations enabled the monotony to be taken from the broadcast description, by switching the description from one point to another, just as soon as the announcer at any one point exhausted the possibilities for colourful description. The polo games were also very acceptable, and the football schedules, soon to begin, will, as usual, provide the annual "piece de resistance" for followers of sport among the radio audiences.

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(Continued from page 7.)

negative charges of electricity), and if a plate also in a vacuum is close by this, and positively charged, it will attract those electrons. Now if the third wire is placed between them and electrical surges imposed upon it, they will be magnified. This is how the valve amplifies. The electron emitting wire in the valve is now coated with thorium, and gives off plenty of electrons when heated only to a dull red. It is thus called a dull emitter. To heat the filament a battery or a constant source of electricity is needed, and so we build up our circuit. We can step up the half volt received from the broadcasting station before the high frequency current has been stripped away and afterwards.

If we step it up before, we speak of the amplification as being radio or high frequency. If afterwards, it is known as audio frequency amplification. The latter part of the set is concerned, not so much with amplifying at a high ratio as it is with handling the amplified current, adding a little amplification of its own and yet not twisting or distorting the signal. The amount of amplification that can take place in a set is really remarkable. Modern screen grid valves are capable of amplifying about 300 times, and if you have three stages of screen grid you are getting a theoretical amplification of 300 times 300 times 300. That is a total of 27 million. Now you wonder why when you turn your set on full you get static and parasitic noises. The audio side also amplifies.

The first may amplify by eight and the last two by three. If you have a power detector that will also increase the signals, so you see that if you are close to a transmitting station and turn on your set full there is going to be a little noise. Of course there are losses in a set, and this theoretical figure is not nearly reached, but the amplification is very great indeed.

The fundamental principles underlying transmission and reception should now be realised, and the different types of set can to a certain degree be appreciated. There is first of all the crystal set, which has no amplification of its own, the one-valve set, which is a detector, and, to a very small extent, an amplifier. And so by adding valves on either radio or audio sides we build up our signal until we have them just as strong as ever we want them. Of course, with apparatus that is in the ordinary household there is a limit to the amount your valves will handle without distortion, but this is the subject of another talk.

Then, there is the superheterodyne, a receiver which works on a different principle. The first valve is usually an ordinary amplifying one and the next an ordinary detector. Following these is not the audio amplifier but an oscillator which, generating another frequency, carries the signal on that like the transmitting station does. Like station, too, it is amplified by the intermediate stages and then passed to the second detector. Following that is the audio amplifier which is similar to that of an ordinary set. This type of set is now becoming very popular.

DO not use the same earth plate as your neighbour, as this is a common cause of interference between receivers.

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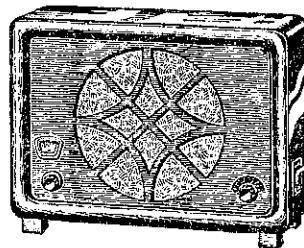
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Short-Wave Topics

Broadcast of King's Speech.

THE opening speech of his Majesty the King of the Indian Round Table Conference on Wednesday, November 12, will be broadcast by G5SW. An announcement was heard from W3XAL during the week that the national network of the U.S.A. stations were going to broadcast the speech, which is timed to commence at 11.58 p.m., N.Z. summer time. W3XAL works on 49.18 metres, and if conditions here are not suitable for G5SW direct, should be a reliable stand-by.

Java Short-Wavers.

JAVA has five main short-wave stations in use. One is used for duplex telephone service with Holland; one for Berlin, Germany; one to Saigon, Indo-China; the fourth for broadcasting, and the fifth for the new service to Australia. The most important transmitters are: PLW, 36.92 metres; PLR, 28.2 metres; PLF, 16.8 metres; PMC, 16.53 metres; PLE, 15.93 metres; and PMB, 14.55 metres. Every Wednesday they broadcast from PLE at 1.40 a.m. to 3.40 a.m. Every day, except Sundays and holidays, gramophone music is played to regulate the transmitters (adjustments of the transmitters and receivers) from

Round the World on Short-wave

11.40 p.m. to 12.40 a.m. (All times given are N.Z. summer time.)

New 58-Metre Station.

A NEW station is now operating on 58 metres in the vicinity of Prague, and is managed by the Czecho-Slovak Government. The hours for New Zealand listeners to tune-in are 7.30 a.m. to 9.30 a.m. every Wednesday and Saturday.

A Stranger on 45 Metres.

A STATION has been heard on about 45 metres, volume being R8-9, at 6 a.m., slowly decreasing to just audible by 7.30 a.m. Both men and women announcers have been heard. Music is high class, all talk in foreign.

PCJ's Revised Schedule.

PCJ, Blindhoven, Holland. Wave, 31.28 metres; power, 25 kilowatts. Times of transmission (N.Z. summer-time): Thursday, 4 a.m. till 8 a.m.; Friday, 6 a.m. to 8 a.m., 10 a.m. to 11 a.m.; 12 noon to 3 p.m., and fortnightly 11 a.m. to noon; Saturday, 6 a.m. to 8 a.m., 12 noon to 6 p.m.

Notes of the Week

RV15, Siberia, 70 metres. Good volume every evening from about 8 p.m. Music is very good, but not much of it.

ZL2XX, Wellington, 62.8 metres, was heard on Monday and Saturday nights. Quality was excellent.

58 Metres (about). On this wavelength, a station commenced at 11.40 o'clock on Saturday night with the Dutch National Anthem. A clock was heard after, then a short talk, in Dutch, which was followed by orchestral music. Reception good at R8.

7LO, Nairobi, 50 metres (about). Has been heard several mornings between 6 and 6.30 o'clock. Thursday was best, when volume was R6, but static was very bad.

W9XF, Chicago, 49.83 metres. This station can be heard with dance music till 7 o'clock each evening now at full loudspeaker strength.

W9XAA, Chicago, 49.34 metres. Another international programme was received from W9XAA on Sunday. At 5 p.m. strength was not good enough to be readable, but by 6.30 p.m. they were R8, increasing to R9 later. Announcements were made in several languages. Letters were read from persons reporting on previous transmissions, and in some instances the next musical item was dedicated to certain listeners. On Saturday they closed before reaching good strength, but were good strength when heard again just after midnight with their early morning programme. 7.15 a.m. New York time.)

W3XAL, Boundbrook, New Jersey, 49.18 metres. Until 6 p.m. this American station comes in at excellent quality and strength.

W2XE, New York, 49.02 metres. Sunday and Saturday, not heard so clearly as some of the others on this band.

Radio Saigon, India-China, 49 Metres. Volume from Saigon is all that can be desired. Heard Wednesday, Thursday and Saturday nights. The commencing time varies. On Wednesday they were heard soon after 10 p.m. Thursday they commenced at 10.40 p.m., while on Saturday it was still later. Volume is always R9 with two stages of audio, it being necessary to reduce volume after midnight.

48.8 Metres (about).—On Saturday afternoon music and talk at R7 was heard on this wave, but was too rough to be readable.

W8XK, Pittsburg, 48.86 metres. Messages to the "Far North" were being transmitted from here on Sunday. R7 at 4.45 p.m., increasing rapidly to R8-9.

KIXR, Manila, 48.86 metres.—This station comes in very well now after 10 p.m.; static is often troublesome, so is a morse station not far from Northland.

45 Metres (about).—This is a new station to be identified. Heard Thursday, Friday, and Saturday mornings at excellent volume and clarity, maximum at 6 a.m., slowly decreasing. Again on Saturday night, just after midnight (early Sunday morning). Much talking is heard with some

music. A lady announcer, commencing with "Alla Alla ——" The call, I think, is a place name, does not sound like letters.

W2XAF, Schenectady, 31.4 metres.—Sunday, Wednesday, and Saturday. On Wednesday they were going late, giving the election results, being R7-8 at 6 p.m. with medium static.

Zeesen, Germany, 31.38 metres.—This German station has gone off a great deal recently. The volume at best is R7, but gushiness spoils them.

WIXAZ, Springfield, Mass., 31.28 metres.—Saturday afternoon R5 at 3.30 p.m., increasing to R7 by 4 p.m. Gives the calls WBZ, WBA, and WIXAZ. Again at midnight with a "Quaker Oat" programme. R8, increasing to R9 by 12.45 a.m. I kept on to this station longer than usual to satisfy myself about the Z in the call. After hearing it several times I am quite certain that it is WIXAZ, the Z being pronounced Zee.

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£30 up rich-toned Metrodyne "Sterling" Screen-Grid 8, 10in. Dynamic—Distance and volume second only to "Commander." R. H. Co., Christchurch.

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

64 Stations on Metrodyne Screen-Grid "Commander."—Americans, Japs, China, Hawaii. List available. From £35. R. H. Co., 553 Colombo St., Christchurch.

FOR rejuvenation there are many methods advocated, from the Voronoff gland downward, but surely the most pleasant of them all must be the grape cure. Every September many English people go to a little village in the Tyrol, where they live entirely on ripe, luscious grapes for two or three weeks. They begin with small quantities, gradually increasing to several pounds a day, and the rejuvenating effect is said to be really marvellous.



TO prevent bottles containing liquid from leaking when travelling, it will be found effective to seal them up with candle-grease. While the grease is still warm, smooth it over the edge of the brim, and there need be no fear of leakage from the bottle.

SURELY those who admire Mr. Arnold Bennett did not know he sings and composes acceptably. His accompaniments are always simple, and his singing voice is good enough to secure him an engagement in any chorus. What is more, he has the rare gift of knowing what his words mean, and he gives them every possible point.

THE famous Oberammergau Passion Play is to be produced in England for the first time. The site for the production has not yet been chosen, but it will very probably be some village with beautiful surroundings, not too far from London. A huge covered-in amphitheatre and a specially large stage would be erected. The profits from the presentations are to go to charities.

PRESENT-DAY fashions decreeing, as they do, long, picturesque frocks for evening and short modern dresses for day-time, make the hair-dressing question rather a problem. But whatever style is chosen, it is necessary that the contour of the head be clearly shown if one wishes to be fashionable. Fussy and elaborate coiffures are quite definitely ruled out as incorrect.

FROM Budapest comes an account of a case in which a lady sued for damages for a ruined dress and compensation "for feelings of shame." Wearing a dress with a very long train, she was standing on the platform of a tramcar, when a man, in jumping from the car, tripped on her skirt. The next moment the lady found herself clad in a dress reaching only to her waist and a blush reaching to the roots of her hair. Fortunately the hour of crisis produced its Solomon, the judge announcing that it was uncertain whether the fault was with the fashion or with the lady who followed it. So women must understand that they are no more entitled to compensation from a man who breaks his neck in tripping over their skirts than from a citizen who damages a hatpin by knocking his eye against it.

MISS ELEANOR LODGE, a sister of Sir Oliver Lodge, was the first woman to receive the degree of Doctor of Literature at Oxford. She was also Principal of the Westfield College for Women (University of London), and has only recently resigned her position.

IN "Jockeys, Crooks and Kings," written by Winnie O'Connor, the "winning jockey," who has ridden in ten thousand races and won two thousand five hundred of them, tells of the use of elastic accelerators. It seems uncreditable that such things were used, but it is true. There were electric spurs which were worked by having a battery strapped round the jockey's waist, under

his packet, for secrecy. There was a wire connected to each spur, and to get the full benefit of the shock, both spurs were used simultaneously. Then there was an electric ring, the battery of which was small and could be concealed in the palm. This ring was pressed against the horse's neck; but it was only used near the post and half-way round the course. Another electric device was a whip in which a small battery was concealed. A fine copper wire ran to the copper tip of the whip, and the jockey pressed the button, simultaneously pressing the copper tip against the horse. The jockeys of those days certainly had more knowledge of electricity than the trusting and simple stewards, who probably knew little or nothing about electricity.

THE 25th Crystal Palace Brass Band Contest was held at the end of September, and the test piece for the championship was specially written for them by Sir Edward Elgar. The first contest piece Sir Arthur Sullivan composed. An-

Thought for the Week

"It is a great satisfaction to think that although you have failed to achieve all that you had hoped for, you may have been able to make the world a little better for your having lived in it."

—Philip Snowden.

other musical note of interest is that Signor Toscanini, the celebrated conductor, will in all probability take charge of the Bayreuth musical festival in future.

IT is apparent from the winter lists of the English publishing firms that a reaction is taking place from the type of literature that has hitherto been most popular. War novels are still with us and new ones are appearing, but it is evident that their popularity is on the wane. Biographies, on the contrary, are much in demand. Not the heavy, stodgy type of biography, but works from the pens of eminently readable authors like Andre Maurois, Lytton Strachey and Philip Guedalla. In order to put the matter to the test, I asked six people whether they had read Buchan's "Montrose." Four replied in the affirmative, and three of them, I am certain, were telling the truth. The point is that these were not specially "high-brow" people—just ordinary humans who appreciate a well-told tale when they can get it. So those pessimists who are constantly bewailing our depraved taste in literature will have to begin looking for another grievance.

MISS MAY EARDLY-WILMOT, who wrote the words of "Little Grey Home in the West" and several other popular songs, is also a lecturer and a leader of community singing. We are to have the pleasure in New Zealand of a visit from her at an early date.

IN setting out to select the design of one's future home, there are four styles from which to choose: the Georgian, the Spanish, the Tudor, and the Elizabethan. First, let us take the dignified Georgian, with a character all its own. The planning is usually square, with a portico, sash windows, and very often shutters are used. Everything is built simply, but there can be no corners or anything "shoddy." Everything must be of the very best—in other words, a well groomed and tailored house. The Spanish house is totally different. This is a sunshine home, and is built to protect the occupants from the sun. The windows are small, and the planning irregular. Outside the windows little balconies with decorative ironwork can be used. This type of house has great possibilities. Now comes the Tudor and Elizabethan. These are informal, and allow for small corners, ingle-nooks, odd windows. A woman with an artistic nature can do anything with the interior of these houses. They just spell opportunity.

HERE is an honest stupidity in which there is a touch of the "pathos and sublime of human life":—At an American railway terminus a coloured employee was complaining to an official that he had not had a rise for over thirty-five years. "What is your job?" he was asked. "Oh, when the trains come in I hit the wheels with a hammer." "What do you do that for?" "I dun-no."

HOW to wash cretonnes, chintz or coloured linens repeatedly and yet retain their delicate colourings is a problem that has exercised many housewives. The solution lies in bran-water. Put some medium bran into muslin bags, leaving enough room for it to swell to about four times its size. Put the bags into a large enamelled pan of water and boil, or rather simmer for about an hour. One gallon of water to each pint of bran will be enough. When the boiling is completed, strain the liquid into a basin and repeat with an equal quantity of water. When washing, use the stronger brew, then repeat with the second. Unless the article is very soiled, soap will not be necessary. Anything requiring a slight stiffening can be rinsed in the weak bran water, and starch is unnecessary. Do not rinse in clear water afterwards if the article is to be stiff. For all linens, chintzes and cretonnes this slight bran stiffening will be quite enough, as too much stiffness spoils the hang of draperies.

ECCENTRIC creations were to be seen at the opening night of the new Cambridge Theatre, London. Beatrice Lillie, starring in "Charlotte's Masquerade," appeared in exotic pyjamas, the trousers of which gave the effect of a full skirt when standing and only disclosed their real identity when in motion. An unusual and very modern touch was a hip yoke of lute tissue.

IN a magazine recently I saw the title of a cookery article, "What shall I make for a change?" But it is a moot point whether the average person wants a change. Have you ever watched the tourist on his travels abroad? Every time he makes straight for a hotel which advertises itself as "a home from home," and where he will be sure of getting the dishes he has been accustomed to in his own household. I was confirmed by the following words from a correspondent in the "Radio Times": This year I spent part of my holiday in the little inn of a Spanish fishing village (he says). The cooking was excellent, but uninteresting. Outside were the gnarled olive trees and the fantastic prickly pears, but on the table were the dishes which the standardised Continental hotel has learnt to provide for English guests. At last we dared to ask the pleasant manageress if we might not have a Spanish dish. The request astonished her; experience had taught

her that English travellers abhor adventures in food. But with this invitation the cook gave rein to her fancy. I dare not trust my memory to record the more elaborate triumphs of her art. The simplest of her dishes showed daring. It was a cabbage boiled with raisins and pine-kernels. To so ennobled that proletarian vegetable was an inspiration of true art.

NOWADAYS people are very keen on collecting; it may be stamps, birds' eggs, old prints, coins, old china, butterflies or first editions. Mr. A. H. Vachell had a love of collecting, and he writes of it:—"I find something that pleases me. I buy it; and when it has become mine I set perhaps an inordinate value on it. This attachment is sentimental. When I glance at it, I recall the circumstances under which I bought it, the pleasant companion who was with me, the haggling, the triumphant acquisition, the happy moments finding the right place for it . . . It ceases to become a 'stick' or a 'stone'; it has become part of myself; part of my past. I lack the heart to throw it into the street." Mr. Vachell does not claim to be a "true collector," because the true collector will get rid of any specimen to make way for a better.

—ALISON.

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Prize Poem Competition

THE prize of half a guinea for the current competition is awarded to "Nova" for an attractively-phrased poem anent the lure of the beauty of trees, which will appeal by its intuition, sincerity and adequate versification.

We select for commendation three brief verses by a new contributor, entitled "Alone," which though not up to prize-winning standard are arresting and attractive by reason of original theme and musical expression. "Wild Rose's" work has the merit of untiring observation of Nature's loveliness, but "An Etching" is marred by weakness of concluding line.

"The Mechanic" defies the God of the Machine in daring verse form. Stark realism and acute consciousness of beauty are cheek by jowl in this interesting contribution, which is couched in ultra-modern phraseology.

"Nada": Your quaint little conceit is too slight in verbal texture. "John o' Dreams" is yet another of those innumerable songsters who carol at break o' day. But his is a watery dawn.

"Moon of My Desire": Trumped-up sentimentality.

"Naomi": Neither rhyme nor reason.

"Florentine": Life is real, life is earnest, 'tis true; but why rub it in?

... Trees ...

Trees, they're funny things—
They hurt somehow.
I've seen a whole sky caught
In one black bough.

Pines I've loved best.
You hear the sea,
All swelling soft and hoarse
In just one tree.

They stand all black and tall,
With stars between
Their strong dark boughs some
nights—
I know. I've seen.

I've watched trees drag and droop.
Seems they weren't meant
For towns—all crying 'gainst
The sky—and bent.

That hurt a bit, but pines,
They stir me deep—
That soft, lost roar of theirs.
They never sleep.

They hurt somehow, do trees.
I've loved them all.
But pines, they twist my heart
With their wild call.

—NOVA.

A Well-Practiced Art

A BOOK, entitled "The Art of Attracting Men," published in America only five years ago, reduces husband-winning to a very conscious art indeed. The professor has set out graduated exercises for the young women, by following which she may become winsome, girlish and alluring. Here are some of them:—

1. Stand before your mirror and say, "I expect you to pet and humour me"; with this thought make a pretty pout.

2. Impulsively show trust in a man and then realise with confusion that your trust was too obvious. This is an exercise requiring intelligent and cautious application (like sighing in the previous work), but it is highly effective.

3. Practise various methods of teasing playfulness.

4. Arch slyness. Shake finger at glass, saying: "You wicked man." Practise assiduously.

There are many more, and if these are not sufficient it might be worth while sending for the book. The publishers are "The Psychology Press of University City, St. Louis." I do not believe it states how many hours' practice a day is necessary, but like so many other things which are taught in the name of "Psychology" it is such hard work to achieve success that you should make sure that what you want is worth the hard labour entailed to secure the result. Of course, some will be successful in the art expounded in this paragraph quicker than others.

What Next?

HENCEFORTH motorists, at least American ones, need not worry about becoming lost on strange roads. A moving map has been devised to fit under the dashboard, and synchronised to unroll as the car drives on. The correct position is indicated by a pointer, so that the driver can check up his position by comparing the landmarks with those marked on the map.

Character Moulding

NOWADAYS very little consideration is given to the nursery. Yet here is the place where a child's character can be moulded and developed, and where his or her own personality can grow, without precociousness creeping in. The child in the nursery is in a world to himself. He is master and host, and can use his imaginative powers to the utmost. He can feel that he can build or play without fear of interruption from the inquisitive adult. A child is often sensitive over his original game, and when questioned, becomes self-conscious; therefore put him in a nursery and leave him alone. The nursery must have simplicity and space. There should be shelves, which encourage willingness, a blackboard for self expression. There must be plenty of space for a child's collections, for a child's love of collecting is an instinct to be fostered. A rocking-horse and a Noah's ark are absolutely essential, for animals play as important a part in a child's life as the doll's tea-set for playing "ladies."

The English Menu

THERE has been a heated controversy recently in the English papers on the subject of the wisdom or otherwise of French menus for English people. There is no doubt that for the average Britisher French menus are inconvenient; but apart from roast, boiled and stewed, what alternatives are there in English? When a new dish is invented and wins the approval of some noted epicure, the French chef duly christens it, makes exact notes of its constituents and the precise order of its manufacture, and that dish becomes history. To the French, cooking has been almost a religion for 500 years, ever since Catherine de Medicis brought Italian cooks to Paris, and if we are to challenge their supremacy we must organise our cooking and make of it an exact science.

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Original Recipes

By

Frank Hilton

As broadcast from

2YA, Wellington



Yorkshire Pudding.

NOW, although it is called Yorkshire pudding, I am doubtful as to whether it has any more relation to Yorkshire than, say Irish stew has to Ireland, or German sausage to Germany, or Bambury cakes to Bambury, or Swiss tarts to Switzerland. The use of all these articles with local place names is now practically universal.

In this Yorkshire pudding recipe we now come to the first article aerated or leavened by eggs only; this means that our pudding is made light and digestible by eggs only, no baking powders being used.

The Ingredients are: 1lb. flour, 2 whole eggs, a pinch of salt and milk.

Method: Put the flour and salt into a mixing bowl or basin, crack in the eggs, and add a little milk to make into a smooth paste until all the flour is incorporated and there are no lumps. Then gradually add more milk until the mixture is as thick as good cream. Then give the mixture a good beat up, just a stir is no good; don't be afraid of beating it up, the more you beat the mixture the lighter your pudding will be. If you are not ready to cook it at once it does not harm to let it stand. Next have a good greased tin ready, using beef dripping for greasing and plenty of it. Pour mixture into the tin and bake in a hot oven. Yorkshire pudding requires about the same heat as scones. If you wish you can also put sultanas or sliced apples in the mixture; either of these makes a nice change. Your pudding should be served hot and straight from the oven, as it spoils if it stands too long after baking. Now, don't forget, plenty of beating and a good hot oven, and you have a perfect pudding.

Fairy Cakes.

MANY readers may not know just what a fairy cake is. Well, the kind I am going to deal with is a small cake weighing about an ounce, baked in fancy tins of all shapes, but all about the same size and holding about the same quantity of mixture. They can be procured cheaply from any hardware store. They consist of hearts, diamonds, half-moons, round and oblong ones, and many other different shapes, but not tins with crinkled edges, as they are difficult to grease and almost always cause sticking. If you cannot get the proper fairy cake tins as I describe them, you had better use small patty pans; these will do quite nicely, but they haven't the variety of shapes and they can never look quite so nice on the table. Another thing I would advise listeners to avoid is paper or soufflé cases. A fairy cake baked in paper can never be as good as one baked in a tin for this reason: during the process of cooking, a large amount of the butter is absorbed in the paper case and must take the texture and quality from the tiny cake. Remember, we have only about an ounce of mixture, and a fourth of that is butter, so you will see we can't spare any of that to soak into paper cases, so it is tins we want every time.

Prepare your tins (as many as possible) the same way I told you for sponge sandwiches last week. Grease with a brush and use hot beef dripping. The grease must not contain any salt, or the cakes will stick to the tins. Brush the grease well into the tiny corners, not too much, or you will find the bottoms what we call "filling"; this means that the cake turns out with a rough edge when the tins are used a second time. They must be quite cold before refilling.

We will now deal with the recipe.

Ingredients: 1lb. butter, 1lb. sugar, 1lb. flour, 1lb. currants, 8 whole eggs, and a pinch of powder.

This I know is rather a lot for a small family—it makes about 70 or 80 tiny cakes. Put them in a tin and they will keep for weeks, providing they are not dried in the oven. If the mixture is too much, try half.

Method: Put the butter and sugar into a mixing-bowl and cream both together. I wonder how many listeners know what this creaming up really means. Lots of people have read about this creaming process in books and have come to me asking what it really means. It is absolutely impossible to make a first-class cake without creaming the butter, sugar and eggs, so I will explain before we get to the really difficult recipes.

Slightly warm the butter and sugar (do not turn the butter to oil). Then with your right hand beat them together until the mixture turns to a cream colour, or until the grains in the sugar are softened. When you

have the mixture nice and creamy add your eggs—one at a time—giving the mixture a good beat up between each egg added until the whole eight are in, and then the battle is over. All you have to do is gently stir in the sifted flour and powder and add the currants.

The mixture will, of course, stick to your hand, but keep your left hand free for the adding of the eggs; these should all be cracked into the vessel unbeaten, and, with care, they can be dropped into the mixture one at a time.

The flour should be sifted on a piece of strong paper, the two sides can then be taken hold of with the free hand, and the flour can be transferred to the mixing-bowl quite easily.

A word here about currants. All currants must be washed in a colander under the high pressure tap, not soaked in water, as they take too long to dry and lose their flavour. A good plan is to put them in the sun on a cloth after washing. Small Vostiza currants are preferable to the Sumatra or Patras varieties. Remember, the smaller the currants the better the flavour, and they should not be put into good quality cake unless dried out properly.

We now have our fairy cakes mixed; the next job is the baking. To fill our tiny tins we need a palette knife—quite a necessary article, and we will need it for icing and decorating later; also it is handy for scraping out mixing-bowls, one about 8 inches long will do. Now, with the end of the palette knife we lift a little of the mixture and put it in the tin, forcing the mixture into the corners and roughly scraping it about three-parts full. A little practice and you will get them all uniform quite easily. If you have not a palette knife, try a large table knife. You will find this method of filling much easier than a spoon. After you have filled all the tins you have, the balance of the mixture can stand until the first batch is cooked, and it will get no harm, providing you do not beat it up again. For the baking you require an oven about sponge cake heat.

Put the fairy cakes on the shelf, or on tins if there is too much bottom heat. Do not let them touch in the oven. Keep them nicely spread out so as to brown their sides. Remove them from the tins while warm, and when cool put them into a biscuit tin, and they will keep fresh for weeks.

Happy Holidays

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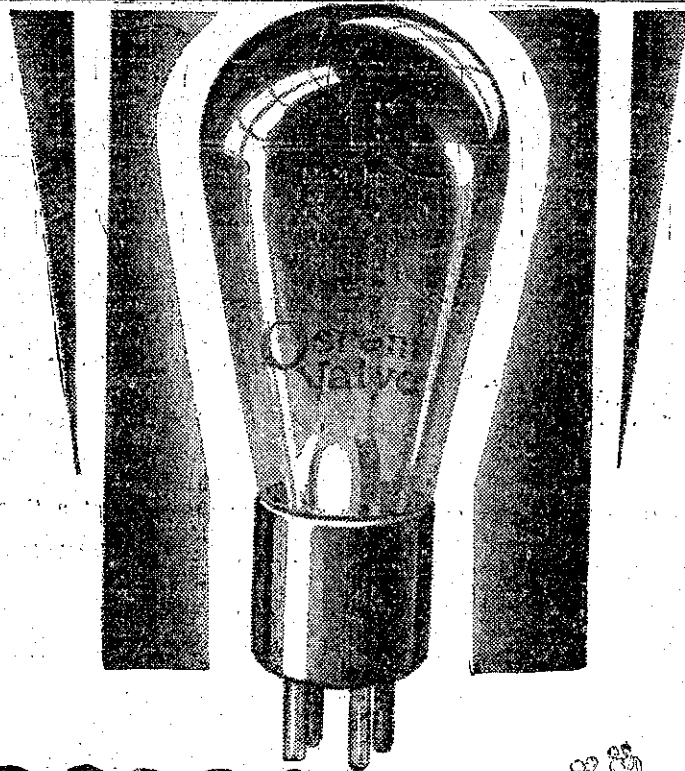
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P.625.A the power valve that has eclipsed all previous performance

DESIGNED to handle enormous volume, entirely free from distortion, in the last stage of amplification, Osram P625A has been proved by wireless enthusiasts throughout Australia to possess exceptional qualities. There is no valve to compare with it, particularly for use in gramophone amplifiers. If you cannot obtain it locally—or any other Osram Valve you need—it will be sent direct, safe delivery guaranteed. The "Osram Valve Guide"—a useful little book—will be sent you free on request

SPECIFICATIONS:

fil. Volts .. 6.0 max.
fil. Current 0.25 amp.
Plate Volts .. 180 max.
Amp. Factor .. 3.7
Impedance 1,600 ohms
Mor. Slope 2.3 ma/volts
Max Plate Cur. 28 m.a.
Eqvy. 6X171A, C603

Osram Valves

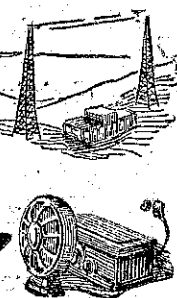
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Radio Round the World



Wavelets

IN the village of Vand, in Switzerland, the authorities have forbidden the use of loudspeakers after 10 p.m., in public places and private homes.

The Danish short-wave station of Lyngby re-transmits the programmes of Copenhagen on 31.6 metres after 7 a.m. (N.Z. time).

The new Swedish station at Spanga transmits on 135 metres, with a power of 60 kilowatts.

A gramophone record the size of a half-crown is being exhibited at Berlin.

In Sardinia a station has been constructed to operate on 10 metres. It will keep that island in contact with the mainland.

AN inventor has constructed a clock the regulation of which is controlled by a piezo-electric crystal, giving it a precision only attained by the famous timepieces of astronomers. After a trial of several weeks it was one-millionth of a second out.

THE Dutch Minister has issued instructions concerning politics in transmissions. The programme must exclude anything that is likely to militate against the opinions of listeners, and in particular those of a political character. It authorises news concerning religious conferences, with the exception of anything calculated to cause strife. Programmes are to be given to suit the general listeners.

IN Germany a type of radio valve in the form of a flat container, somewhat resembling a tube of tooth paste, is being produced. The grid is not inside the valve, but is in the form of a metal layer on the outside of the glass. It is made at lower cost than the ordinary valves and operates as efficiently.

THIS year's Radio Show at Olympia, England, is being regarded as a Celebration Exhibition to mark the tenth anniversary of the first programme broadcast in that country. It was in 1920 that Dame Nellie Melba's voice was heard by a small band of listeners who tuned in the Marconi transmitter at Chelmsford. The National Radio Exhibition, which was held from September 19 to 27, was the largest and most complete ever held in the Empire.

NOT for a moment is it to be believed that the valve has reached the peak of development. It is revealed that the chief engineer of the De Forest Radio Company has invented a new form in which the grid is caused to rotate by the impact of the electron stream from the filament, something like the Crookes "radiometer," in which four vanes are rotated by light energy. This new-old

idea appears to present interesting possibilities and we shall watch closely for its emergence in the form of a finished instrument. One claim made for the revolving grid device is that it can be used as a frequency changer.

THE provision of wireless on the Thames police-motor-launches is an interesting project now being considered at Scotland Yard. The boats so fitted would carry out patrol work in the same manner as the wireless-equipped vans of the Flying Squad on land.

TO go to gaol in absolute ignorance of the wireless art and to emerge a fully fledged "amateur" is now a happy possibility in Russia. The Soviet Government has come to the conclusion that the study of radio is one of the best means of improving a prisoner's morals. It has been found that courses in electricity and wireless develop a new mentality among prison students, many of whom, it is declared, have turned over a new leaf on returning to civil life by taking up radio as a profession.

COMMENDING wireless as offering promising careers for young men, a writer in a technical college handbook in Hull, England, remarks: "It is only 35 years since Senatore Marconi filed his application for the first British wireless patent. On the screen, in the 'talkies,' in the work of shipping, in world communication through the great 'beam' stations, as well as in factories and workshops which produce and sell the manifold broadcasting and receiving sets, careers have been opened up for thousands of able young men whose talents might otherwise have run to waste but for this invention."

AT the request of the International Broadcasting Union, the British Broadcasting Corporation has recently adopted, in common with other broadcasting organisations, a new power rating. The actual power of all B.B.C. stations remains the same as before, though the method of computing the power rating is changed to comply with the new international definition. In the past different broadcasting organisations have used different methods. The new system of computing the power of a broadcasting station takes account of modulation, which the method formerly used in England did not.

A LONDON motorist has fitted a public address system on his car to replace the horn. During recent tests he was able to "direct" pedestrians to safety at a distance of 300 yards. The idea has its disadvantages, for if every car were so fitted, a busy thoroughfare would become a veritable Tower of Babel.